



# **Selection and Recruitment of Competent Teachers' Lead to Improve Teaching Learning Quality of TVET**

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Implemented by

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## ACCRONYMS

ASEAN:	Asia and South East Asian Nations
BTEB:	Bangladesh Technical Education Board
CBT&A:	Competency Based Training and Assessment
DTE:	Directorate in Technical Education
FGD:	Focus Group Discussion
ICT:	Information Communication Technology
ILO:	International Labor Organization
IT:	Information Technology
HSC (BM):	Higher Secondary School Certificate (Business Management)
HSC (VOC):	Higher Secondary School Certificate (Vocational)
MOE:	Ministry of Education
NSDP:	National Skill Development Policy
NEP:	National Education Policy
NTRCA:	National Teachers Recruitment and Certification Authority
NTVQF:	National Technical Vocational Qualification Framework
PSC:	Public Service Commission
Seven 5YP:	Seven Fifth Year Plan
SSC (VOC):	Secondary School Certificate (Vocational)
TMED:	Technical and Madrasah Education Division
TQF:	Teachers Qualification Framework
TVET:	Technical Vocational Education and Training
TTTC:	Technical Teachers Training Institute
TSC:	Technical School and College
UNESCO:	United Nations Educational Scientific and Cultural Organization
UCEP:	Underprivileged Children Education Program
VTTI:	Vocational Teachers Training Institute

## EXECUTIVE SUMMARY

**Methods for data collection for this research:** Data were collected both by following qualitative and quantitative approach. The data collection techniques including online questionnaire (Cloud Based), semi-structured interview and review of documents

**Sample:** Data were collected from 6 polytechnic institutes including 6 public and 2 private, 10 TSCs (Public), 7 private vocational institutes situated in 6 Division (Dhaka, Mymensingh, Rangpur, Rajshahi, Khulna and Chittagong) of Bangladesh. The respondents were 100 in number including 4 Principals, 1 Vice Principals, 14 Chief Instructor, Instructor 38, Junior Instructor 33 and 10 trade instructors. The number of female respondents were 22 and male part were 78. There were 6 TVET experts were interviewed both face to face and online meeting.

### **Findings:**

**Types of TVET teachers:** The study reveals that four Types of TVET teachers are working under DTE institutes. These are-1. BCS Technical Education Cadre Teachers (working at Public polytechnic Institutes). 2. Non-cadre teachers (working at public Polytechnic institutes and TSCs), 3. MPO supported Regular teachers (working at private vocational institutes) and 4. Contractual teachers (working at Private polytechnic institutes).

**Selection and Recruitment Authority:** There are four types of authority are concern for the selection and recruit activities. These authorities are-1. The Public Service Commission (PSC), 2. Project Based selection and recruitment committee under Ministry of Education (TMED), 3. Selection and recruitment committee guided by the Bangladesh Technical Education Board (BTEB) and 4. Self regulated recruitment by the Institute.

**Selection and Recruitment Criteria:** All criteria are similar for the post principal, vice principal, CI, Instructor and Junior instructor post are similar for both public and private teachers who are operating diploma in engineering programme. For private vocational institute Trade Instructor selection criteria is different from junior instructor Post of TSC. Criteria of Training Instructor (UCEP) is different from all public private TVET teachers and seems fulfillment of other criteria that need to become a competent TVET Teacher.

***Criteria Difference among Different Countries:*** For public TVET teachers' Educational qualification is the only criterion for selection and recruitment under DTE Institutes. For Public and Private polytechnic teachers' educational qualification is same but for the public and private vocational teachers' qualification has a difference. For the teachers of NGO (UCEP) teachers' criteria included higher educational qualification than public TVET teachers with added at least 5 yrs teaching experience, teaching methodological (Pedagogy) certification, industry experience and training.

***Selection and Recruitment Process:*** In Bangladesh TVET Teachers selection for public, MPOs and Private Polytechnic Institutes is mostly based on educational qualification. Job description, Job specification were not written clearly. Only written and viva voce are taken for selection of teachers. No provision for skills test and other criteria to qualify the competent teachers. Few NGOs like UCEP have clear description of Job responsibility of each post. They set the criteria combining with educational higher qualification, teaching experience, industry experience and other professional skills certifications.

***Implications:*** The implications of this research has been developed with three dimensional approaches; these are- Implication for Practices, Implication for Policy and Implication for further research. Overall following implications areas were assessed-

1. For Selection and recruitment criteria of TVET teachers need to be review as per the curriculum needs
2. Teachers Qualification Framework (TQF) need to be formulated for the TVET teachers inline with existing and upcoming NTVQF/BNQF
3. TVET teachers' occupational requirement should be prescribed according to JD, JS and PP as per their own occupational/professional requirements
4. BTEB should revise the present recruitment regulation as per the programme needs and teachers' number must set as per the STR to face the challenges to meet the national target by 2021, 2030 and 2041
5. A separate teachers recruitment commission (Statutory Body) need to be established as per the guideline of National Education Policy-2010, National Skills Development Policy-2011 and Integrated action plan taken by the TMED.



## Chapter- One: Introduction

### 1.1 INTRODUCTION

The Technical Vocational Education and Training (TVET) system in Bangladesh comprises three level of education and training; Basic level, certificate level and diploma level (World Bank, 2006). Basic Trade courses are mainly 360 hrs duration course, focuses on mostly manual skill. Minimum eight grade educated youth can enroll in these courses and can get certification after successful completion of final assessment combining of a written test and a skill test. The certificate level of courses is mainly three categories; SSC Vocational, HSC Vocational and HSC Business management courses. Each course is two yrs duration. SSC Vocational completers (Graduates) may proceed to the HSC Vocational Courses or to the Diploma in Engineering courses. Diploma in Engineering courses are four yrs duration and after completion of diploma in engineering courses (graduates) may join any engineering job or to move for higher (B.SC Engineering) degree. Both SSC Vocational and Diploma in Engineering courses are implementing by both public and private institute and teachers are also broadly categories as public (Government) and private (Non-Government) TVET Teachers. In this study we are investigating the selection and recruitment criteria and processes of TVET teachers who are working in the diploma and SSC vocational courses mainly.

Both selection and recruitment are the two phases of the employment process. The term ‘selection’ comes with the connotation of placing the **right person** in the **right job**. Selection is the process in which various strategies are employed to help recruiters decide which applicant is best suited for the job. Some activities include: Screening the candidates, eliminating unsuitable candidates, conducting an examination (aptitude test, intelligence test, performance test, personality test, etc.), Interviews, Checking references and Medical/physical tests. Through **Selection** candidates are screened for choosing the most suitable persons for vacant posts. On the other hand, **Recruitment** is the process of employment of the selected candidates in the organization. Recruitment is the process in which people are offered selection in an organization. It is when prospective employees are searched for and are then encouraged to apply for jobs within the organization. This is just one step in the process of employment however it is a long process that involves a series of tasks, starting with an analysis of the job requirements and ending with the appointment of the employee. Specific tasks involved in the process of recruitment include: Analyzing job requirements, Advertising the vacancy, attracting candidates to apply for the job, managing response, Scrutinizing applications Shortlisting candidates. Recruitment activities are typically performed by Human Resource practitioners, either internally or externally. Internal recruitment sources are promotion, transfers, retrenched employees, contact or references, ex-employees, retired employees, etc. External recruitment sources are recruitment through advertisement, campus recruitment, recruitment by employee exchanges, recruitment by third parties, internet recruitment, unsolicited applicants, etc. (Ref: <https://sprigghr.com/blog/hr-professionals/what-is-the-difference-between-recruitment-and-selection>).

In specific to the Bangladesh TVET system, teachers selection is done by the public service commission (PSC) and teachers' recruitment is highly centralized in the ministry of education for all level of positions in TVET (Rafique, A 2014). The Public Service Commission (PSC) process the selection of the TVET teachers of polytechnic and TSCs post through written test and viva voce with no provision of psychomotor (skill) test. The Ministry of Education (TMED) is responsible for the recruitment with the consent of the President of the country.

Through this study teachers, selection, recruitment criteria have been study indepth to find out the quality selection criteria of TVET teachers and comparing the criteria with other countries and identifying the common criteria which is prerequisite for ensuring quality selection, what will be their minimum educational qualification, what cognitive, psychomotor and attitudinal skills and behaviour should have for a TVET teachers and how these components will be ensure in the selection and recruitment process this research work answer of the questions in this study.

## 1.2 STATEMENT OF THE PROBLEM

Bangladesh TVET sub-sector is undergoing major reforms throughout the last decade specially these reforms got a dynamic change in the last couple of years in terms of rapidly changing TVET enrollment, changing curricula, involving employers, developing technical vocational education qualification framework, framework for trainers and assessors, introducing training in multi disciplined venue etc. These reform initiatives have been taken with a major concern on quality of training that ensure the desired learning outcome of TVET graduates.

In Bangladesh TVET system, Incompetent Teacher, high students' teacher ratio (STR), Inadequate training facilities with low management capacity results graduates are facing difficulties to enter Job market (Rafique 2014). Documents study under this research reveals that Bangladesh TVET system is now confronting many challenges in terms of huge shortage of teachers, teachers' skills both on pedagogy and subjects, training, development facilities etc. It is mentionable that the quality of any education is contextual, i.e., it depends upon the norms and standard of the institution as well as of the country and other indicators prevailing in the system. But overall, the role of teachers is most important because this is the main living input and other inputs are utilized by the teachers. If teachers' skill is poor, the quality of TVET cannot be assured though other inputs are satisfactory. If skilled teachers can be set into the system, other shortcomings or deficiency can be minimized. The quality of teachers cannot be developed suddenly or through training or development programme only rather it is a continuous process in the whole professional life starting from the selection and recruitment process. In this context the existing rules, regulations, policies of selection criteria and recruitment process of TVET teacher in Bangladesh are the main focus in this study.

### 1.3 SIGNIFICANCE OF THE STUDY

Technical Vocational Education and Training (TVET) in Bangladesh is rapidly increasing and government has given more emphasis on TVET and declared it as the priority sector for skills development of the country. The 7<sup>th</sup> FYP emphasizes the expansion of TVET system in the country and has set a target of increasing student enrollment 20% by 2020, 30% by 2030 and 50% by 2041 from existing 14% in 2016. This enrollment has a direct correlation with teachers' enrollment. TVET system will need a huge number of qualified teachers to maintain the quality of training and to meet the local and global job market requirements. We organized this study considering three major significance;

1. Exploring relation of quality TVET with quality teachers,
2. findings the gap between quality selection and recruitment process with the prevailing system of selection and recruitment and
3. how this study will contribute in developing a quality selection process specially both in policy formulation and its implementation in practice.

#### 1.3.1 TEACHERS ARE THE MANIPULATIVE AGENT IN TEACHING LEARNING SYSTEM

This study has been revealed that teachers' quality and capability in teaching learning process are vital as teachers are one of the main living inputs in the teaching–learning processes and play paramount role in the delivery to the students, the other living input and for ensuring quality of learning. (Rafique, A 2012). Quality teachers are the preconditions for ensuring teaching learning quality. There are significant correlations between teachers' quality and students' performance. Teachers are the most important factor influencing the quality of students learning and other achievements.

#### 1.3.2 GAP ANALYSIS AMONG QUALITY SELECTION PROCESS WITH PREVAILING PRACTICES

Bangladesh is facing and observing a huge skills gap of the graduates with the job market. Low skill and low productivity of the workforce prevail in all private and public sectors of the economy and services. TVET graduates are facing serious difficulties for entering in to employment market due to incompetent teachers, significantly high student teacher ratio, inadequate training facilities and low management capacities. Among those limitations well trained teachers can play manipulative role to minimize the limitations.

The selection and recruitment process of TVET teachers is centrally managed by the Ministry of Education for public TVET institutes. The long process of recruitment for Public TVET teachers may take about two years, depending upon the request from other ministries and the Public service commission (PSC) own load. The recruitment of teachers and their promotion in private TVET institution are done by the governing Board (GB) or managing committee (MC) of the institute

constituted as per the provision of the BTEB. The Non-Government Teachers Registration and Certification Authority (NTRCA) are responsible for testing and certifying the list of selected teachers to the school and colleges authority. Other major consideration (Research Problems) in this study is the recruitment criteria that has been set for both public and private TVET teachers are mostly basis on academic qualification and merely on teaching experience.

In this context this research work has been designed to review the present selection and recruitment criteria of TVET teachers under DTE institutes, evaluate criteria and recruitment process with its effectiveness, compare the selection criteria with different countries in the region, identify the gaps between the criteria which needs to ensure quality selection and formulate the recommendations which will ensure quality selection of TVET teachers within a standard reasonable time.

### 1.3.3 HOW THIS STUDY WILL CONTRIBUTE IN TVET SYSTEM

This study looks for the actual situation of teachers' selection and recruitment process, compare it with the other advance countries and findings its gap where Bangladesh TVET system can improve its teachers' selection and recruitment criteria and processes. Basically, this study will contribute in the following dimensions

- Contribute in policy formulation compiling all existing TVET teachers selection and recruitment rules and practices both for Public private and enterprises oriented TVET institutes and its teachers
- Contribute to formulate a quality ensuring criteria for selection of TVETt teachers
- Minimises the gaps between the quality of Teachers among pulic and private institutes and its teachers

## 1.4. PURPOSE AND RESEARCH QUESTIONS

The Main purpose of this research work is to formulate recommendations for selection and recruitment criteria of TVET teachers that is the basis for a competent TVET Teachers which will lead to improve teaching learning quality of TVET.

### Research Question

This research will be organized to answer the following questions:

1. What are the criteria been considered in selection and recruitment of TVET teachers' in Bangladesh?
2. What is the present selection and recruitment practices of TVET Teachers' for selected TVET programme?
3. What are the criteria been considered for selection and recruitment of TVET teachers 'in different countries?
4. What would be the selection and recruitment criteria for Ensuring potential and competent TVET Teachers in Bangladesh?

## 1.5 OUTLINE OF THE REPORT

### 1.5.1 SCOPE AND LIMITATIONS

The study will cover all category of TVET teachers are enroll in polytechnic institutes and Technical School and Colleges under Directorate of Technical Education (DTE). Further the study has been explored in Diploma in Engineering programme operating private Polytechnic institutes teachers and SSC (Vocational) operated MPO supported private vocational institutes teachers. All those categories of teachers are considered in designing sample size. Considering the time and resource limitations, proposed research will be organized and conducted within the following boundaries:

1. Only BTEB affiliated SSC Vocational, HSC Vocational and Diploma in Engineering level formal TVET courses and its teachers has been studied.
2. Selection and Recruitment rule/process of Public and Private (only MPO) TVET teachers has been considered to calculate sample size in the study.
3. DTE operated polytechnic Institutes and TSCs and its teachers' selection criteria and recruitment process has been studied indepth to formulate the recommended recruitment and selection criteria

### 1.5.2 REPORT OF THE RESEARCH WILL COMPRISE WITH

The report of this study comprises with the following major components;

1. An executive summary that will present a synopsis of the whole study
2. All essential parts of the research including introduction, Theoretical framework, Methodology, data analysis findings results and implecations/recommendations of results. Each of those parts of research are further sub divided into subsections.
3. References and Appendix covers all relevant study documents and its references. Appendix covers all supplementary documents of the study covers the questionnaire and relevant recruitment documents of the study.

## CHAPTER-TWO: LITERATURE REVIEW

There are researches' relating to reforms in the Technical and Vocational Education and Training (TVET) and its teachers/instructors/educators as per the technological change and skills content in the job market. The skills and knowledge of the TVET teachers are integral to quality in training, learning and assessment. There are acts, policies, recruitment rules, survey/research work, strategic workplans, conference papers, teacher's qualification framework and various documents has been reviewed to link of the objectives of this research. Among those following are the major contributors to develop the review of this study.

As the ministerial division of Education Ministry, The Technical and Madrasha Education Division (TMED) have prepared an **Integrated TVET Development Action Plan (TVETDAP)** to achieve Vision-2021 and SDG -2030. In this integrated TVET development plan, 50 (fifty) activities have been taken under chapter one title "Policy and Project Formulation. "Out of these 50 activities 12 activities (Chapter-1.7-1.9, 1.11, 1.13, 1.19, 1.26, 1.37, 1.42, 1.43, 1.46, and 1.49) have been mentioned for recruitment, selection, training and development of TVET teachers.

TVET enrollment is rapidly increasing and government has given more emphasis and declared it as the priority and set a target of increasing student enrollment rate to be achieved 20% by 2020 and 30% by 2030. This increasing trend of enrollment has a direct correlation with teachers' enrollment. As per the BTEB report published in August 2016 "**Enrollment Analysis in TVET under Bangladesh Technical Education Board**" shown a projected enrollment of TVET by 2020 will be 2000159 which is 20.82% of 10 boards' enrollment. As per the Bangladesh Education Policy-2010 standard student teacher ratio (STR), is 12:1 and considering this ratio with 15:1, it means by 2020 standard size of TVET teachers will be 142867. The present TVET teachers' size is calculated as 58404 as per the data of BANBEIS (2013). It appears that minimum 84465 or more number of TVET teachers (due to vacancies for training and retirement) will be newly selected/recruited to maintain teaching learning function.

**Innovation Strategies in South Asia Teachers Professional Development, Special Focus on Bangladesh. ADB-2017**, noted with the national teacher development framework

TVET Governance Rframmed, ensuring quality teaching learning, Rafique, Abdur (2014) mentioned, "In Bangladesh almost all the TVET institutions and the TVET system are facing the challenges of low qualification of teachers, very high students' teachers' ratio (STR), inadequate facilities and infrastructure, low payment and low ability of teachers, low financing of students, academically uncoordinated with other stakeholders etc. The reasons for the serious crisis concerning the STR are not simple either to explain. This partly may be attributed to the unusually lengthy and faulty teachers' selection and recruitment process, absence of mandatory standards, inadequate flow of resources and lack of attention. Teachers, managers and other staff selection, recruitment, promotion and promotional development should be done by the GOB both for public and private institutions as per the approved teachers' qualification framework".

Recent a qualification framework has been introduced for the TVET trainers and assessors, title, “ **Competency Standard for TVET Trainers and Assessors, ILO, 2012, V3.1**” that has a combined module for ensuring both skilled and pedagogy contents but a small portion of employed TVET teachers are getting entrance in this process of certification to become a skilled trainer and assessors. ‘**Bangladesh Civil Service (Age qualification for direct recruitment) Regulation 2014**’ mentioned post of BCS technical education cadre and its criteria for direct recruitment.

TMED, MOE introduced a recruitment regulation title, ‘**The directorate of Technical education and institutes under the DTE and its non cadre teachers and staff recruitment regulation-2020**’ in this regulation 12607 number of post has been newly created under the DTE institutions and its selection criteria has been developed and catagorieses recruitment into four types; direct recruitment, promotion, posting and Deputation or Transfer and set the criteria for direct recruitment. **Non-Government Teachers Registration and Certification Authority (NTRCA)** has introduced for certifying candidates for being teachers of non-government educationl institutes and they have been set criteria for for each of the teaching post and conducting a written test yearly. The certified candidates are eligible candidate of Private TVET teachers

Bangladesh Technical Education Board (BTEB) has introduced its recruitment regulations title, “Recruitment regulations for the private TVET institutes teachers recruitment-1996”. In this regulation all government and non-government institutes post has been mentioned with its selection criteria has been set comprehensively. It has been set criteria for the teachers of Private polytechnic and vocational (MPO supported). Some special NGO like UCEP has their own criteria of trainer/instructor including maintain minimum qualification criteria set by BTEB. The Bangladesh Technical Education Act-2018 mentioned its organization mandate to introduce recruitment regulation of all its accreditate institutes and its teachers. ‘**National Education Policy-2010**’ MOE, Bangladesh set the standard of Students Tteachers Ratio (STR) 12:1for TVET. Its has been also provided a guideline for selection of quality teachers with establishment of a separate recruitment commission for the teachers. National Skills Development Policy-2011, by NSDC, GOB has introduced a separate chapter title “Certified Instructors and Trainers” and detail criteria has been mentioned including emphasized the industrial experience and training for a TVET teachers and instructors.

Teachers’ qualification framework for ASEAN, title “REGIONAL TVET TEACHER STANDARD FOR ASEAN” has been identified Essential competencies required for a TVET Teacher. It has been clearly demonstrating all the required criteria to being qualify for a TVET teachers at the time of recruitment and after te recruitment what will be the other competencies for his/her professional competencies. Selection and Recruitment of Lecturer, Polytechnic College, Tamil Nadu, India has the recruitment criteria at the time of recruitment for the direct recruitment for the post of lecturers in Govt. Polytechnic colleges and special institutions (Engg and Non-Engg). Similarly Australia and Srilankan TVET teachers qualification framework studied and identified its criteria in the time of recruitment.



## CHAPTER-THREE: METHODOLOGY

### 3.1 STRATEGY OF INQUIRY

Research Question	Strategy of Inquiry/ Study (Type of Data to Addressed the RQ)	Overall Strategy of Inquiry/study
Q-1: What are the criteria been considered in selection and recruitment of TVET teachers?	Qualitative	Mixed Method Design following Sequential order of findings
Q-2: What is the present selection and recruitment practice of TVET Teachers for selected TVET programme?	Qualitative & Quantitative (Mixed)	
Q-3: What are the criteria been considered for selection and recruitment of TVET teachers ‘in different countries?	Qualitative	
Q-4: What are the selection and recruitment criteria for Ensuring potential competent TVET Teachers in Bangladesh?	Qualitative & Quantitative (Mixed)	

### 3.2 DATA SOURCE

Research Questions (RQ)	Data Source
RQ1	Recruitment policies, rules and procedural documents of TVET teachers’ recruitment in Bangladesh specially used for the teachers of SSC, HSC and Diploma in Engineering Programme.
RQ2	TVET Teachers, Principals/Managers, Experts, TVET Administrators/Policy Formulators
RQ3	Related documents of Teachers qualification framework, standards, Recruitment rules of selected countries for the same level of TVET programmes.
RQ4	Based upon the findings data on RQ1, RQ2 and RQ3

**Primary Sources:** TVET Teachers, Principals/managers, experts, TVET administrators/policy formulators  
**Secondary Sources:** Recruitment policies, rules and process of TVET teachers in Bangladesh specially used for the teachers of SSC, HSC and Diploma in Engineering Programme by public and Private TVET Institutes, Related documents of Teachers qualification framework, standards, Recruitment rules of selected countries for the same level of TVET programmes.  
**Specific Secondary data source:** Documents from the MOE (TMED), DTE, BTEB, will be used. In addition, various documentary materials will be gathered from the participating PI, TSC, and other private TVET providers.



### 3.3 RESEARCH DESIGN

Phase A: RQ1, RQ2 and RQ3 together with Qualitative Quantitative approach

Phase B: RQ4 qualitative approach

### 3.4 SAMPLE AND SAMPLING

Data Source	Sample Size	Sampling
Teacher	100	SRS
<p>Data were collected both qualitative and quantitative approaches. Data collection technique included semi-structured questionnaire, review of recruitment documents, face to face interviews, Focus Group discussion (FGD). Data were collected from 6 Polytechnic (Public), 10 TSC (Public), 2 polytechnic (Private), 7 vocational institutes (private) and one specialized NGO operated TVET institute (UCEP). Among the respondents there are 4 principals and 96 TVET teachers mixed of technical and non-technical subjects. 22 respondents were female and remaining 78 are male.</p> <p><b>Data Collection Area: Polytechnic Institute-</b> Dhaka, Mahila, Jessore, Magura, Kaptai and Bogura=7 district Technical School and College-Manikgang, Jessore, Kustia, Magura, Rangpur, Joypurhat-7,</p> <p><b>Sample Distribution Plan:</b> Polytechnic Teachers: Public -40+Private-10 Total-50 (Male-40, Female-10, CI-5, Instructor-20, JI-25. Tech-40, Non-Tech-10 Vocational Teachers: TSC-40, Private-10 Total-50 ((Male-40, Female-10, CI-5, Instructor-20, JI-25. Tech-40, Non-Tech-10) TVET Teachers recruitment policy guideline in NEP-2010, NSDP-2011, BTEB service regulation-1996 and BTEB Act-2018, TMED approved integrated Action Plan-2018, Recruitment rule for BCS Technical Education Cadre. PSC recruitment rule for TVET Teachers. Recruitment rule for the Non-Cadre teachers and staff, BANBEIS Report-2018. 4. Slovene's formula: <math>n=N/(1+Ne^2)</math> with considering 10% margin of error, Where n= Sample size, N=Population, e= Margin of error. Using this random sampling size 100. Teachers of PI and TSC 4. India, Pakistan, Srilanka, Australia and ASEAN TVET teachers' qualification standard. 5. Projected Teachers recruitment size with training number (TT instructor)</p>		

### 3.5 DATA COLLECTION TOOLS

Data Source	Data Collection Tools
Teacher	Semi Structure Questionnaire set
Principial/Manager	Semi Structure Questionnaire set
Graduate	Semi Structure Questionnaire set
Documents	Chart/Check list
<p>The study has undertaken <b>mixed method</b> for collecting data apply <b>both qualitative and quantitative approach</b> to gather data and information. The data collection technique included sets of semi-structured questionnaire provided quantitative data interviews and document reviews.</p>	

Will Include here short description of all above Tools

### 3.6 RESEARCH MATRIX

Research Question	Instrument/ Tools
Q-1: What are the criteria been considered in selection and recruitment of TVET teachers?	Document study (recruitment policy, rules) <sup>1</sup>
Q-2: What is the present selection and recruitment practice of TVET Teachers for selected TVET programme?	Semi Structured Questionnaire Set-01
Q-3: What are the criteria been considered for selection and recruitment of TVET teachers ‘in different countries?	Document study of selected countries <sup>4</sup>
Q-4: What are the selection and recruitment criteria for Ensuring potential competent TVET Teachers in Bangladesh?	Opinion-Questionnaire set-2FGD-Questionnaire set-3 KII-Interview

### 3.7 DATA ANALYSIS

Technique for Quan Data      Technique for Qual Data

**Data Analysis and Presentation** Statistical Technique Used: Online data collection makes data analysis concurrently with graph, charts etc. Other data analysis has been made manually.

### 3.8 ETHICAL CONSIDERATION

1. Maintain ethics in sampling size determination based on size of the population and using formula (Sluvin’s formula) not set it arbitrarily and don’t on convenience (like choosing close colleagues, friends those who are easily accessible)
2. Trying best to avoid in the following common errors made any research work. The ethics and practice followed in the study mentioned in the following table.

Common error	Our practice to avoid it
Selective observation that confirms our pre-existing beliefs	Tried to make all statements based on literature study/review, find other studies and relationships, decide research approach before taking notes on supervisor/advisors’ notes etc.
Inaccurate observation	Careful literature review helps us avoid misremembering essential data and information during data collection.
Over generalization	Use representative samples from different categories of teachers.
Made-up information	Asking opinions of others makes it more reliable. Rely on prior research, study, and theory to make our interpretation more reliable.
Illogical reasoning	Extensive use of peer review among team members.
Ego involvement	Trying to remain neutral, using a team approach, sharing research tasks with others.
Pre-mature Closure of enquiry	Keep looking for answers, using frequently different approaches of data collection.
Mistifications happens	Keep looking for answers when we are tempted to rely on enchanted explanations specially from advisors.

## CHAPTER FOUR: DATA ANALYSIS AND RESULTS

Data were collected both qualitative and quantitative approaches. Data collection technique included semi-structured questionnaire, review of recruitment documents, face to face interviews, Focus Group discussion (FGD). Data were collected from 6 Polytechnic (Public), 10 TSC (Public), 2 polytechnic (Private), 7 vocational institutes (private) and one specialized NGO operated TVET institute (UCEP). Among the respondents there are 4 principals and 96 TVET teachers mixed of technical and non-technical subjects. 22 respondents were female and remaining 78 are male. Data analysis and findings were prepared as per the research questions and describing now with the following titles.

### *Diagram 1: Number of TVET Institutes Operating Diploma and SSC Vocational Programme*

*(Source: Compilation from BTEB, 2021)*

Diploma in Engineering	SSC Vocational
<ul style="list-style-type: none"> <li>• Public Institute-121</li> <li>• Private Institute-511</li> <li>• Total Technology-34</li> <li>• Total Seat -169180</li> </ul>	<ul style="list-style-type: none"> <li>• Public Institute-151</li> <li>• Private Institute-3082</li> <li>• Total Trade-31</li> <li>• Total Seat-320160</li> </ul>

As per the BTEB report there are 33 types of TVET curriculum/programme are operating in which 18 types are diploma level programme, 12 types Certificate level programme, 2 types national skills standard level and 1 type National Skills Standard Basic (360 Hr) courses. In this study we have taken only diploma in engineering and SSC Vocational programme and its teachers of both public and private category. Details Information of TVET Programme and institute number are shown in the table-01.

**Table-01: TVET Programme and Institutes Information (As on BTEB Report 2018-19)**

SI	Curriculum/Programme	Technology/Trade no	Duration	Institutes No		Total Institute No
				Public	Private	
<b>01</b>	<b>Diploma in Engineering</b>	<b>34</b>	<b>4 yrs</b>	<b>122</b>	<b>495</b>	<b>617</b>
02	Diploma in Textile Engineering	03	4 yrs	07	153	160
03	Diploma in Agriculture	-	4 yrs	18	162	180
04	Diploma in Fisheries	-	4 yrs	04	54	58
05	Diploma in Forestry	-	4 yrs	01	0	01
06	Diploma in Livestock	-	4 yrs	02	0	02
07	Diploma in Medical Technology	08	4 yrs	0	231	231
08	Diploma in Tourism & Hospitality	-	4 yrs	06	0	06
09	Diploma in Engineering (Naval)	04	4 yrs	01	0	1
10	Diploma in (Army)	05	4 yrs	03	-	03
11	Diploma in Fisheries (In Service)	-	4 yrs	03	0	03
12	Diploma in Forestry (In Service)	-	2 yrs	02	0	02
13	Diploma in Animal health and Production (In Service)	-	2 yrs	03	0	03
<b>14</b>	<b>HSC (Vocational)</b>	<b>14</b>	<b>2 yrs</b>	<b>64</b>	<b>0</b>	<b>64</b>
15	HSC ( Business Management)	05	2 yrs	03	1907	1910
16	Diploma in Commerce	02	2 yrs	0	07	07
<b>17</b>	<b>SSC (Vocational)</b>	<b>31</b>	<b>2 yrs</b>	<b>151</b>	<b>3082</b>	<b>3233</b>
18	Dakhil (Vocational)	31	2 yrs	0	301	301
19	Diploma in Medical Ultrasound	-	1 yrs	0	28	28

Directorate of Technical Education (DTE) was established in 1960 in Bangladesh. It is the main implementing agency of Technical and Vocational education and is a directorate under the Technical and Madrasa Education Division, Ministry of Education. The main activities of DTE is human resource management, operating development work, supervising and monitoring academic activities and creating connectivity with national and international agencies. The total number of TVET institutes under DTE is 119 and covers three level of learning activities; certificate level, diploma level and degree level. In certificate level there are 64 TSCs and 1 Vocational Teachers Training Institutes (VTTI). In Diploma level there are 49 Polytechnic Institutes. In degree level there are 1 Technical Teachers Training College (TTTC) and 4 Engineering Colleges. Details of the Institutes information is shown in the table-02

**Table-02: Institutes Information under DTE (Data Source: DTE report 2017-18)**

Sl	Institute Category and Types	Number	Total Number by 2021-2025
1	Technical Teachers Training College (TTTC)	01	1+1=2
2	Engineering College	04	4+1+4=9
3	Vocational Teachers Training Institute (VTTI)	01	01
4	Polytechnic/Monotechnic Institute	49	49+4+23=76
5	Technical School and College (TSC)	64	64+100+8+389=561

**Teachers under DTE Institutes:** The teachers under the DTE institutes are various types. Broadly as per the category of job status teachers are of two types; Cadre and Non-Cadre. The number of cadre and non-cadre teachers are shown in the table-03 as per the institute wise.

**Table-03: Number of Cadre and Non-Cadre teachers under DTE Institutes. Source: DTE**

Sl	Institute	Existing Post			Remarks
		Cadre	Non-Cadre	Total	
1	DTE	12	18	30	Non-teaching post
2	Regional Directorate Office	8	24	32	Non-teaching post
3	Engineering College	0	157	157	Teaching post
4	TTTC	49	19	68	Teaching post
5	VTTI	19	17	36	Teaching post
6	Polytechnic Institute	577	1207	1784	Teaching post
7	TSC	0	1163	1163	Teaching post
8	Polytechnic Attached 9 VTIs	9	116	125	Teaching post
	<b>Total</b>	<b>674</b>	<b>2721</b>	<b>3395</b>	

In another way TVET teachers under the DTE institutes may categories as per the subject wise. In a recent Gajet Ministry of Education, Technical and Madrasa Education Division created more 12607 post under 113 number of DTE Institutions in which 49 polytechnic and 64 TSCs and are categories on their subject/position basis and is shown in table-04

**Table-04: Subject/Position wise TVET Teachers Category under DTE Institutions**

SI	Institute	Post	Types of Post		
			Cadre	Non-Cadre	Total
1	Polytechnic Institute (49)	Principal	0	1	1
		Vice-Principal	20	23	43
		Chief Instructor (Tech)	169	407	576
		Chief Instructor (Non-Tech)	57	29	86
		Instructor (Tech)	510	1205	1715
		Instructor (Non-Tech)	305	367	672
		Workshop Super	0	74	74
		Junior Instructor (Tech)	0	1711	1711
		Junior Instructor (N-Tech)	0	652	652
		Physical Instructor	0	10	10
2	Technical School & College	Chief Instructor (Tech)	0	334	334
		Instructor (Tech)	0	345	345
		Junior Instructor (Tech)	0	553	553
		Instructor (Bangla)	0	96	96
		Instructor (English)	0	149	149
		Instructor (Math, Phy & Ch)	0	380	0
		Religious teacher (Islam)	0	61	61
<b>Total</b>			<b>1061</b>	<b>6397</b>	<b>7078</b>

**Table-05: Teachers Post Created under 100 TSC (Data Source-DTE)**

SI	Post	Number/TSC	Total
1	Principal	1	100
2	CI (Tech)	4	400
3	CI (Non-Tech)	1	100
4	Instructor (Tech)	4 trade*2=8	800
5	Junior Instructor (Tech)	4*6=16	1600
6	Instructor (Comp)	1	100
7	Junior Instructor (Comp)	1	100
8	Instructor Bangla, English, Math, Physics, Chemistry,	5	500
9	Junior Instructor (Bangla, English, Math, Physics, Chemistry Social Sc, Religion, Charu Karu, Phy. Edu)	9	900
<b>Total-</b>			<b>4600</b>

**Table-06: Numbers of Teacher in Different Sectors. As per year 2013. (BANBEIS)**

Sl	Category of Institute	Number of Educational Institutes	Number of TEVT Institutes	Teacher Educational	Teacher TVET	Female Teacher	% of Female	Number of different Students
1	Professional	0	447	8185	0	1521	0	0
2	Technical Vocational	0	3766	0	27073	5439	0	0
3	Polytechnic Institute	0	270	0	3819	479	0	0
4	Technical School & College	0	116	0	2245	417		0
5	Glass & Ceramic Institute	0	1	0	13	3		0
6	Graphics arts Institutes	0	1	0	14	4		0
7	Survey Institute	0	4	0	56	7		0
8	Technical Training Center	0	81	0	1299	215		0
9	Textile Institute	0	33	0	5250	65		0
10	Textile Vocational	0	50	0	345	81		0
11	Agroculture Training Institute	0	109	0	960	191		0
12	Marine Technology	0	1	0	52	5		0
13	SSC Vocational (Independent)	0	169	0	1976	399		0
14	HSC Voc/B Management. In-	0	584	0	5626	1241		61628
15	SSC Vocational. (Attached)	0	1432	0	5698	1318		0
16	Educational Institute Teachers	1,39,911	0	9,33,553	0	3,70,018	25%	34194910
17	TEVT Institute Teachers		7114		49,696	11,385	19%	

**Table-07: Projected Teachers in Upcoming TVET Institute under DTE Projects**

Sl	Organization	Existing Post	Projected Post	Projected Teachers	Remarks
1	DTE and its institutes	7762	-		DTE report-2018-19
2	49 Polytechnic Institutes	9912			TMED
3	64 TSC	2965			
4	100 TSC	-	6800	4600	100 TSC project data
5	389 TSC	-	26452		Ratio analysis as per 100 TSC project
6	National present and by 2030	49,696 (Teachers)		Students enrollemnt-8.1 m by 2030 Teachers-8.1/12=675 million	BANBEIS Report-2013 STR=12:1 (NEP-2010) National TVET enrollemnt target-30% by 2030

## 4.1 TYPES OF TVET TEACHERS

The Teachers' types of participant are presented in the following table.

**Table-08: Type of TVET Teachers**

Institute Name	Respondents	Teachers Types
Dhaka Polytechnic	6	BCS TE Cadre and Non-cadre Type
Dhaka Mahila Polytechnic	6	BCS TE Cadre and Non-cadre Type
Comilla Polytechnic	5	BCS TE Cadre and Non-cadre Type
BD-Swiden Polytechnic	9	BCS TE Cadre and Non-cadre Type
Jashore Polytechnic	7	BCS TE Cadre and Non-cadre type
Magura Polytechnic	9	Non-Cadre type
Khulna Mahila Polytech.	1	Non-Cadre type
Mymensingh Polytechnic	2	BCS TE Cadre and Non-cadre type
Jashore TSC	12	Non-Cadre type
Magura TSC	4	Non-Cadre type
Kustia TSC	12	Non-Cadre type
Joypurhat TSC	2	Non-Cadre type
Rangpur TSC	1	Non-Cadre type
Panchagarh TSC	2	Non-Cadre type
Sherpur TSC	3	Non-Cadre type
Jalpur TSC	1	Non-Cadre type
Dhaka Central and Borak Polytech	6+1=7	Contractual
Fazilpur W.B Kadery HS	2	Regular (MPO)
Duhuli SC High School	1	Regular (MPO)
Chadpur Janata HS & College	6	Regular (MPO)
Motalebgang Pilot Girls HS	2	Regular (MPO)
<b>Total</b>	<b>100</b>	

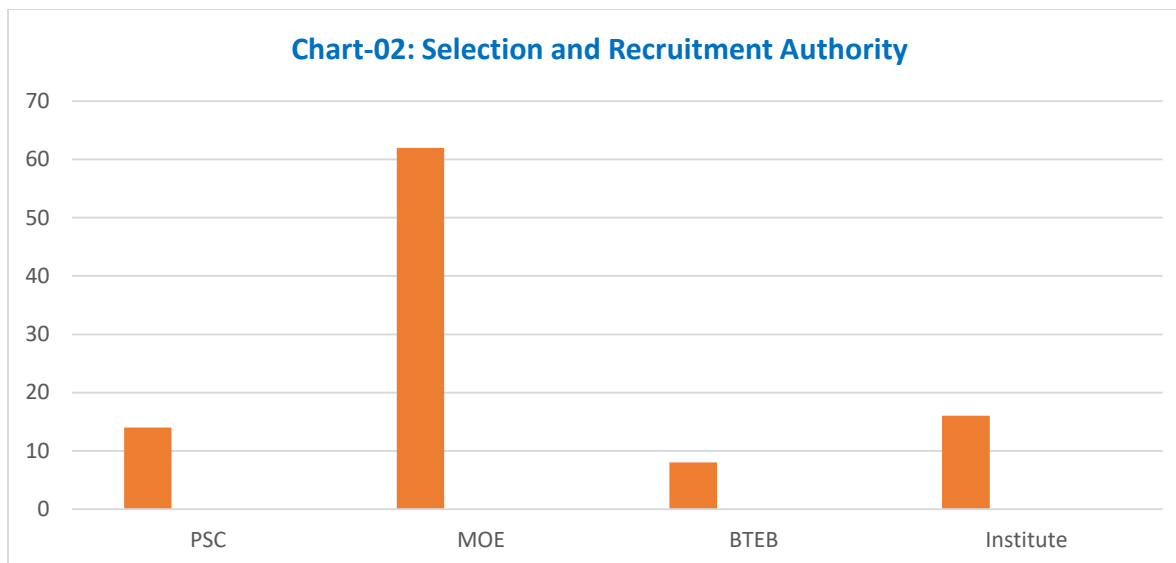
The data in the above table **shows/reflect/reveals** that four Types of TVET **Teachers are working**. These are-1. BCS Technical Education Cadre Teachers (working at Public polytechnic Institutes). 2. Non-cadre teachers (working at public Polytechnic institutes and TSCs), 3. MPO supported Regular teachers (working at private vocational institutes) and 4. Contractual teachers (working at Private polytechnic institutes).

## 4.2 SELECTION AND RECRUITMENT AUTHORITY

In this study we found 14 teachers selected by the PSC, 62 teachers are selected and recruited by MOE 8 teachers are by BTEB-Institute management committee and 16 teachers are recruited by the institute management committee/head of the institute. So, there are four types of authority are concern for the selection and recruit activities. These authorities are-1. The Public Service Commission (PSC), 2. Project Based selection and recruitment committee under Ministry of Education



(TMED), 3. Selection and recruitment committee guided by the Bangladesh Technical Education Board (BTEB) and 4. Self regulated recruitment by the Institute. In the following chart-01 different selection and recruitment authority are shown.



**Chart-02: Section and Recruitment authorities of TVET Teachers**

**Analysis Summary:**

1. Public Service Commission (PSC) selecting TVET teachers of BCS Technical Education Cadre post. After completion the selection process by PSC, ministry of Education (TMED) executes the recruitment through issuing GO as per the vacant post given by the DTE.
2. The leading recruiting authority is TMED (MOE) for selection and recruitment activities. PSC is also selecting and confirming the non cadre post of TVET teachers.
3. MPO supported non-govt TVET institutes are recruiting teachers through an institute-based recruitment committee as per the BTEB guideline.
4. Private Polytechnic Institute are recruiting their teachers within their own capacity, but BTEB has provided a teacher's qualification structure.

#### 4.3 SELECTION AND RECRUITMENT CRITERIA:

Respondent teachers are of following category as per their post title:

1. Principal (4)
2. Vice Principal (1)
3. Chief Instructor (14)
4. Instructor (38)
5. Junior Instructor (33)
6. Trade Instructor (10)

“Recruitment regulation-2020 for Cadre and Non-Cadre officer and staff under DTE”, categorises recruitment into four types; direct recruitment, promotion, posting and Deputation or Transfer and set the criteria for direct recruitment. “SRO- 54, 1996 of BTEB, Service Regulation for Private TVET Institute Teachers and Staff” set criteria for the teachers of Private polytechnic and vocational (MPO supported). Some special NGO like UCEP has their own criteria of trainer/instructor including maintain minimum qualification criteria set by BTEB. In the following table-3, TVET teachers’ criteria and recruitment process for cadre, non cadre post and other category of teachers is shown as per the mentioned recruitment rules and regulations.

**Table-09: Recruitment Criteria of TVET teachers**

SI	Post Name	Criteria for selection	Recruitment Process
1	Principal (Polytechnic)	<b>For Promotion:</b> 3 yrs experience as a vice principal or deputy director and minimum 12 yrs service experience in grade nine or above post. <b>For Posting:</b> Among the 3 (Three) yrs experienced associate professors of TTTC, Dhaka.	Through promotion, if not available through posting
2	Principal (TSC)	Among the 5 yrs experienced chief instructor (Tech) or Assistant Director or central store cum service workshop equipment officer	Through promotion,
3	Vice Principal	5 yrs experience as a chief instructor tech/non tech and minimum 10 yrs service experience in grade ix or above.	Through Posting
4	Chief Instructor Tech/Non-Tech	5 yrs experience as instructor tech on relevant technology or relevant subject or project officer or equipment officer of DTE.	10% direct recruitment 90% through promotion. If not available by promotion than direct recruitment.
5	Instructor/Workshop Super	<b>For Promotion:</b> Minimum 5 yrs experience as a junior instructor in same technology. <b>For direct recruitment:</b> Second class in B.SC Engineering/B.SC TE. Not more than one 3 <sup>rd</sup> division/CGPA	50% direct recruitment 50% through promotion. If not available by promotion than direct recruitment
6	Junior Instructor	First division/CGPA in 4 yr duration Diploma in Engineering from BTEB	100% direct recruitment

7	Trade Instructor (For Private Vocational Institute)	2 <sup>nd</sup> division or equivalent CGPA in respective technology in Diploma in Engineering or Diploma in TE or DVE or Agriculture diploma (3 or 4 yrs). 3 <sup>rd</sup> division is allowed in only one exam.	100% direct recruitment
8	<b>Training Instructor<sup>1</sup></b> (UCEP), a typical NGO operated TVET provider)	B. Sc/M. Sc in related Technology with At least 5 yrs teaching experience in a reputed similar training institute and Specified Training certification on specific occupation under the technology cluster, and Experienced in similar industry mentioned and Required industry skills. Specificity job responsibility, skill required, Professional certification, industry experience is included with the mentioned quality criteria	100% Direct recruitment

<sup>1</sup>Training instructor is the entry teaching position of UCEP, and consider its selection and recruitment criteria to make a comparison with the present selection and recruitment criteria of Bangladesh TVET system and with the criteria set by other countries.

### **Analysis Summary:**

1. All criteria are similar for the post principal, vice principal, CI, Instructor and Junior instructor post are similar for both public and private teachers who are operating diploma in engineering programme.
2. For private vocational institute Trade Instructor selection criteria is different from junior instructor Post of TSC.
3. Criteria of Training Instructor (UCEP) is different from all public private TVET teachers and seems fulfillment of other criteria that need to become a competent TVET Teacher.

#### 4.4 SELECTION AND RECRUITMENT CRITERIA BY SELECTED COUNTRIES

- 4.4.1 “OECD countries are following a standard<sup>1</sup> for recruiting TVET teachers. As per their standard a good (competent) teacher must possess: required academic qualification along with integrated training and experience components of: Teacher Training, 2. Teaching Experience, 3. Industrial experience, 4. Industrial Training and 5. Management training. Registered Training Organizations (public and private, universities) that have Certificate in Training and Assessment in their scope of delivery can offer pre-service TVET teacher and TVET trainer training. The duration of Initial Pre-service training in terms of years: Australia 4, France 5, Finland 5, Germany 5, Japan 4, Korea 4, UK 4, USA 4”.
- 4.4.2 According to the standards set out by the Australian Industry and Skills Committee Authority<sup>2</sup>, all VET trainers and assessors must hold a Certificate IV in Training and Assessment and/or a qualification in adult education at a diploma or higher level as well as the appropriate current skills/qualifications/knowledge/abilities for their industry. For those who provide assessment, a certification in the Assessor Skill Set is sufficient qualification instead of the above, including the same industry skills requirements.
- 4.4.3 ASEAN<sup>3</sup> introduced TVET Teachers Recruitment Criteria and Standard as at least one year of teaching experience, relevant work experience in industry, hold bachelor degree (AQRF level 6), higher skills level than to be conducted, one level approach, train students until post sec level & focus on occupational competence.
- 4.4.4 India practices different standard in different provinces. For understanding their standard in selection and recruitment of lecturer (Entry post) of polytechnic college as Selection and Recruitment of Lecturer, Polytechnic College, Tamil Nadu, India. The Teachers Recruitment Board (TN TRB<sup>4</sup>) under the Govt. of Tamil Nadu inviting eligible candidates for direct recruitment for the post of lecturers in Govt. Polytechnic colleges and special institutions (Engg and Non-Engg). The post of lecturer in Govt. Polytechnic Colleges is considered as a reputed job in the govt sector. Many aspirants aim to become a lecturer and salary provided are the best in the field of teaching jobs.

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1. TVET Governance Structure, Reframe for Ensuring Students Learning, Rafique A (2014) 2. TVET Country Profile, Australia (2018) 3. REGIONAL TVET TEACHER STANDARD FOR ASEAN Essential competencies for TVET Teachers in ASEAN SEAMEO VOCTECH and GIZ-RECOTVET, July 2017 4. TN TRB- Tamil Nadu Teachers Recruitment Board

#### 4.4.5 Tamil Nadu, India Recruitment Eligibility Criteria for TVET teacher:

Age Limit: Should not completed 57 yrs Education Qualifications: The candidate should have passed in Tamil Language as part I or part II up to SSLC or PUC/ Higher secondary course levels. If not, he/she should pass the Tamil language test conducted by the Tamil Nadu Public Service Commission within two years from the date of his/her appointment. The candidates possessing equivalent qualifications can also apply for which the Govt. Order has been issued. Application link is open; candidate can visit and fill the form. The application is entirely online. After comply all requirement admit card will be provided.

#### **Selection pattern includes the following steps-**

1. Computer Based Examination
2. Online examination. Single page 150 MCQ 3 hrs
3. Subject covers: Main Subjects, General Knowledge
4. Candidates shortlisted (CBE) will move to the next round of recruitment.
5. The selection from CBE will be in the ratio of 1:2 for the next steps.
6. Awarding Weightage marks during Certificate Verification
7. Weightage marks will be awarded after certificate verification for the eligible short-listed candidates.
8. The candidate securing higher merit in the above rounds will be selected for the post.
9. The final list of selected candidates will be published on the official portal. Candidates can download the result.

**Subject covers for selection test:** Main Subjects plus general knowledge include basic question from the topics: History, Geography, Polity, General awareness (6 months from the month of examination) & general Sc. The selected candidates will receive Rs 56100-177500 (Level 22)

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#### 4.5 DIFFERENCES OF SELECTION CRITERIA AMONG DIFFERENT TYPES OF TEACHERS

ASIAN Teachers qualification and standard defined a good TVET teacher having the required academic qualification (Higher level that to be taught) along with teaching experience, competency certification in teaching methodology (Pedagogy), Industrial experiences and training<sup>1</sup>. In this study comparing those criteria respondents' teachers' qualification and gaps are shown in the table-04

**Table-10: Selection Criteria differences of TVET teachers at entry post**

Teachers Type	Post	Education Qulification	Teaching Experience	Teaching Competency	Industry Experience	Industry Training
ASIAN TVET Teachers (Qualification Standard)	TVET Teacher	Bachelor Degree	At least 1 Year	Higher skill level than	Work exp in industry	Occupational Competence
TVET Teachers of Public Institute	Junior Instructor	Dip in Engg First Division or GPA 3.00	X	X	x	x
Teachers of Private Polytechnic Institute	Junior Instructor	Dip in Engg 1 <sup>st</sup> Div or GPA 3.00	X	X	x	x
Teachers of MPO granted Private TVET Institute	Trade Instructor	Dip in Engg 2 <sup>nd</sup> Division equ. CGPA	X	X	x	x
Teachers of NGO operated TVET Institutes (UCEP)	Training Instructor	B. Sc/M. Sc in related Tech	√ At least 5 yrs	√	√	√

##### Summary Analysis:

- For public TVET teachers' Educational qualification is the only criterion for selection and recruitment under DTE Institutes.
- For Public and Private polytechnic teachers' educational qualification is same but for the public and private vocational teachers' qualification has a difference
- For the teachers of NGO (UCEP) teachers' criteria included higher educational qualification than public TVET teachers with added at least 5 yrs teaching experience, teaching methodological (Pedagogy) certification, industry experience and training.

## 4.6 SELECTION AND RECRUITMENT PROCESS:

Through study and review of different recruitment rules and regulation we found that selection and recruitment process of TVET teachers are different by the different recruitment authority. The recruitment process are as follows-

### 1.6.1 SELECTION AND RECRUITMENT PROCESS FOLLOWED BY PSC

Usually when a position falls vacant or a new post created by the Government DTE logically get information from the institutes spread all over the country and started the recruitment process with following steps-

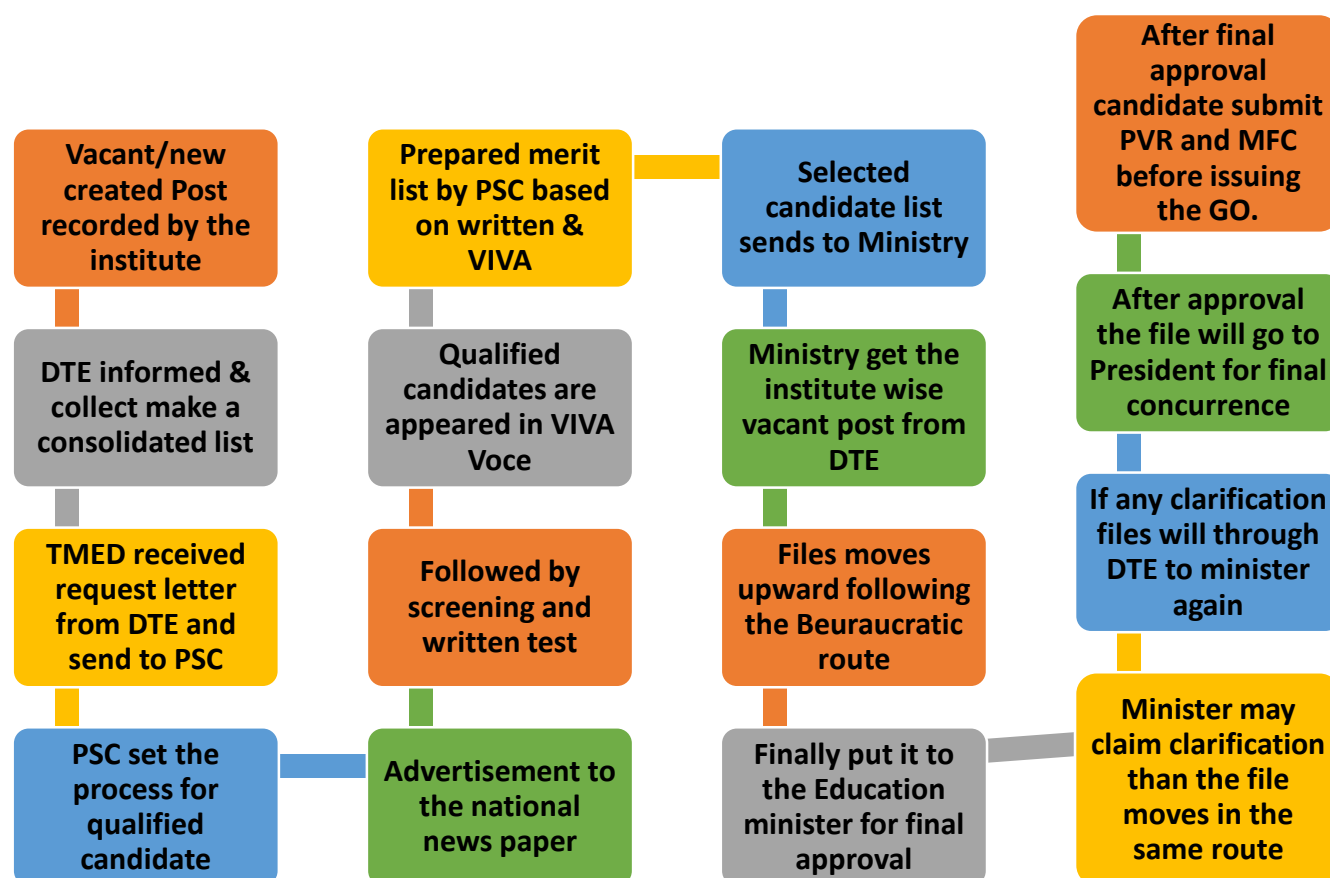


Chart-04: PSC Teachers Recruitment Chain Process (16 main steps & more sub-steps) Data

Source: TVET Governance structure Reframed for Ensuring Students Learning, Rafique A (2014)

#### **4.6.2 Selection and Recruitment Process followed by BTEB-Institute**

The selection and recruitment process followed by the recruitment authority are-

1. For appearing as a candidate for MPO supported teaching post of private vocational institute, a candidate must be certified by NTRCA through a written test (Based on his/her own subject area and common knowledge)
2. Respective institute publish an advertisement in newspaper on the vacant post and prepare a short-listing candidate on subject basis
3. Respective institute send a proposal to BTEB for issuing a recruitment letter
4. As per the recruitment regulation BTEB formed recruitment committee and provide guidance for conducting selection and recruitment of teacher (s)
5. After the recruitment committee formed, institute management committee conduct selection process with a written test followed by viva-voce with the qualified candidate from written test.
6. Prepare the final selection panel based on summation of both written & viva result.
7. Institute authority then issue the appointment letter to the selected candidate and send a report to BTEB, DTE MPO section for approval of MPO.

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#### **4.6.3 SELECTION AND RECRUITMENT PROCESS FOLLOWED BY PRIVATE POLYTECHNIC INSTITUTE**

All 7 respondents from two private polytechnic institutes said that they were selected based on only conduct a viva.

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#### **4.6.4 SELECTION & RECRUITMENT PROCESS FOLLOWED BY A NGO OPERATED TVET INSTITUTE**

In this study we examine the selection and recruitment process of UCEP a leading training provider for under preveledged youth and found the following process of their teachers' selection and recruitment-

1. Vacant post advertisement in national paper with mentioned job details of specific teaching post including job responsibility, required education, skills and experiences in teaching and in industry
2. Interested candidates are given a link address for apply
3. Only short-listed candidates are contacted for provided more information as per the required by the selection committee
4. Selection committee conduct test and best suited/qualified candidate are issued appointment letter



**Analysis Summary:** In Bangladesh TVET Teachers selection for public, MPOs and Private Polytechnic Institutes is mostly based on educational qualification. Job description, Job specification were not written clearly. Only written and viva voce are taken for selection of teachers. No provision for skills test and other criteria to qualify the competent teachers. Few NGOs like UCEP have clear description of Job responsibility of each post. They set the criteria combining with educational higher qualification, teaching experience, industry experience and other professional skills certifications.

#### 4.8 DATA ANALYSIS RESULT (SUMMARY)

Question	Results/ Findings
<p>Q-1: What are the criteria been considered in selection and recruitment of TVET teachers in Bangladesh?</p>	<ol style="list-style-type: none"> <li>1. For entry position of TVET teaching post (Junior instructor/Trade instructor) <b>academic qualification is the only selection criteria</b> for qualifying a teacher.</li> <li>2. For Public TVET Institution Junior instructor is the entry post of teaching and first division in diploma or equivalent CGPA in respective technology is the minimum education qualification for apply, but for Private TVET Institution (MPO supported) 3<sup>rd</sup> division in SSC and 2<sup>nd</sup> division in Diploma can apply for a post of trade instructor. Hence <b>there is a qualification difference between public and private TVET teacher.</b></li> <li>3. For diploma programme teachers' educational qualification is same level (<b>Diploma teachers taught at diploma level</b>) but for Vocational programme teachers' education qualification is one level higher (<b>Diploma teachers taught at SSC/HSC Vocatonal level</b>)</li> <li>4. For some NGOs like UCEP B. Sc/M. Sc in Engineering in the respective engineering field is the minimum academic qualification to apply for the entry post (training instructor). Along with this qualification teaching experience, teaching methodology and certifications, industrial experience and training is the compulsory components for selection criteria to qualify to become a training instructor.</li> <li>5. There is a significant qualification difference in selection criteria between public-private TVET teacher and some NGOs (UCEP, MAWTS, Ahsania Mission etc) teacher. <b>Public-Private TVET teachers are selected based on only educational qualification, but NGOs are incorporating with teaching experience teaching methodology, industrial experience, industrial training along with educational higher degree than to be taught.</b></li> </ol>

<p>Q-2: What is the present selection and recruitment practice of TVET Teachers for selected TVET programme?</p>	<p>1. PSC is the main recruitment agency for selection of TVET teachers needs to meet atleast 16 main steps and more sub steps to complete the recruitment cycle.</p> <p>2. Selection and recruitment criteria is not same among the following group of TVET teachers</p> <ul style="list-style-type: none"> <li>• Teachers of public and Private TVET Institutes (MPO supported and UCEP)</li> <li>• Teachers of MPO supported private institutes &amp; some special institute (UCEP)</li> <li>• Teachers of Public and Private polytechnic institute</li> </ul>
<p>Q-3: What are the criteria been considered for selection and recruitment of TVETteachers 'in different countries?</p>	<p>In all developed countries TVET teachers are not selected only based on educational qualification rather they formulate a competent Teacher with required academic qualification along with teacher training (Pedagogy), teaching experience, industrial experience and industrial training.</p> <p>There are some countries following preservice training before taught to students. The duration of Initial Pre-service training in terms of years: Australia (4), France (5), Finland (5), Germany (5), Japan (4), Korea (4), UK (4) and USA (4).</p>
<p>Q-4: What are the selection and recruitment criteria for Ensuring potential competent TVET Teachers in Bangladesh?</p>	<p>Major criteria for selection and recruitment that should be included in recruitment process found in this study are as follows-</p> <ol style="list-style-type: none"> <li>1. Suitable Academic Qualification (At least one level higher)</li> <li>2. Teaching experience</li> <li>3. Pedagogy training and certification</li> <li>4. Industrial Training and experience</li> </ol>

## Chapter-Five: Major Finding of the Study

1. For entry position of TVET teaching post (Junior instructor/Trade instructor) **academic qualification is the only selection criteria** for qualifying a teacher.

2. For Public TVET Institution Junior instructor is the entry post of teaching and first division in diploma or equivalent CGPA in respective technology is the minimum education qualification for apply, but for Private TVET Institution (MPO supported) 3<sup>rd</sup> division in SSC and 2<sup>nd</sup> division in Diploma can apply for a post of trade instructor. Hence **there is a qualification difference between public and private TVET teacher.**

3. For diploma programme teachers' educational qualification is same level (**Diploma teachers taught at diploma level**) but for Vocational programme teachers' education qualification is one level higher (**Diploma teachers taught at SSC/HSC Vocatonal level**)

4. For some NGOs like UCEP B. Sc/M. Sc in Engineering in the respective engineering field is the minimum academic qualification to apply for the entry post (training instructor). Along with this qualification teaching experience, teaching methodology and certifications, industrial experience and training is the compulsory components for selection criteria to qualify to become a training instructor.

5. There is a significant qualification difference in selection criteria between public-private TVET teacher and some NGOs (UCEP, MAWTS, Ahsania Mission etc) teacher. **Public-Private TVET teachers are selected based on only educational qualification**, but **NGOs are incorporating with teaching experience teaching methodology, industrial experience, industrial training along with educational higher degree than to be taught.**

6. PSC is the main recruitment agency for selection of TVET teachers needs to meet atleast 16 main steps and more sub steps to complete the recruitment cycle.

7. Selection and recruitment criteria is not same among the following group of TVET teachers

- Teachers of public and Private TVET Institutes (MPO supported and UCEP)
- Teachers of MPO supported private institutes & some special institute (UCEP)
- Teachers of Public and Private polytechnic institute

8. In all developed countries TVET teachers are not selected only based on educational qualification rather they formulate a competent Teacher with

required academic qualification along with teacher training (Pedagogy), teaching experience, industrial experience and industrial training.

9. There are some countries following preservice training before taught to students. The duration of Initial Pre-service training in terms of years: Australia (4), France (5), Finland (5), Germany (5), Japan (4), Korea (4), UK (4) and USA (4).
10. Major criteria for selection and recruitment that should be included in recruitment process found in this study are as follows-
  - Suitable Academic Qualification (At least one level higher)
  - Teaching experience
  - Pedagogy training and certification
  - Industrial Training and experience

## CHAPTER-SIX: IMPLICATIONS

Implication of this study is presenting with the following three major dimensions

1. Implication for Practices
2. Implication for Policy and
3. Implication for further research

### 6.1 IMPLICATION FOR PRACTICES

1. 6.1.1 Selection and recruitment criteria of TVET teachers need to be review and set criteria as per the curriculum needs and a Teachers Qualification Framework (TQF) need to be formulated for the TVET teachers.
- 6.1.2 A separate teachers recruitment commission need to be established

### 6.2 IMPLICATION FOR POLICY

Implication for policy policy change

### 6.3 IMPLICATION FOR FURTHER RESEARCH

Implication for further research

2. Recruitment authority must have the capacity to fulfill the selection and recruitment of required number of teachers in time.
3. As per the guideline of National Education Policy-2010, National Skills Development Policy-2011 and Integrated action plan taken by to face the challenges of meet the national target by 2021, 2030 and 2041
4. In all selection and recruitment process real professional/experts is need to be selected to fulfill the national target effectively
5. TVET teachers' occupational requirement should be prescribed according to JD, JS and PP tuned to the NTVQF levels of the standard qualification.
6. BTEB should revise the present regulation prescribes teachers occupational requirement tuned to the NTVQF levels and ensure application both by the Public Private TVET Instt.
7. Teachers number must be set as per approved STR, level of course size and structure of TVET institute
8. Teachers' selection and recruitment promotion and PD should be done by the GB both for P-P Instt as per the approved TQF

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## 8. APPENDIX

8.1 QUESTIONNAIRE (ATTACHED)

8.2 FACE TO FACE INTERVIEW WITH EXPERT- QUESTIONNAIRE

8.3 RECRUITMENT RULES AND POLICIES (DOCUMENTS)