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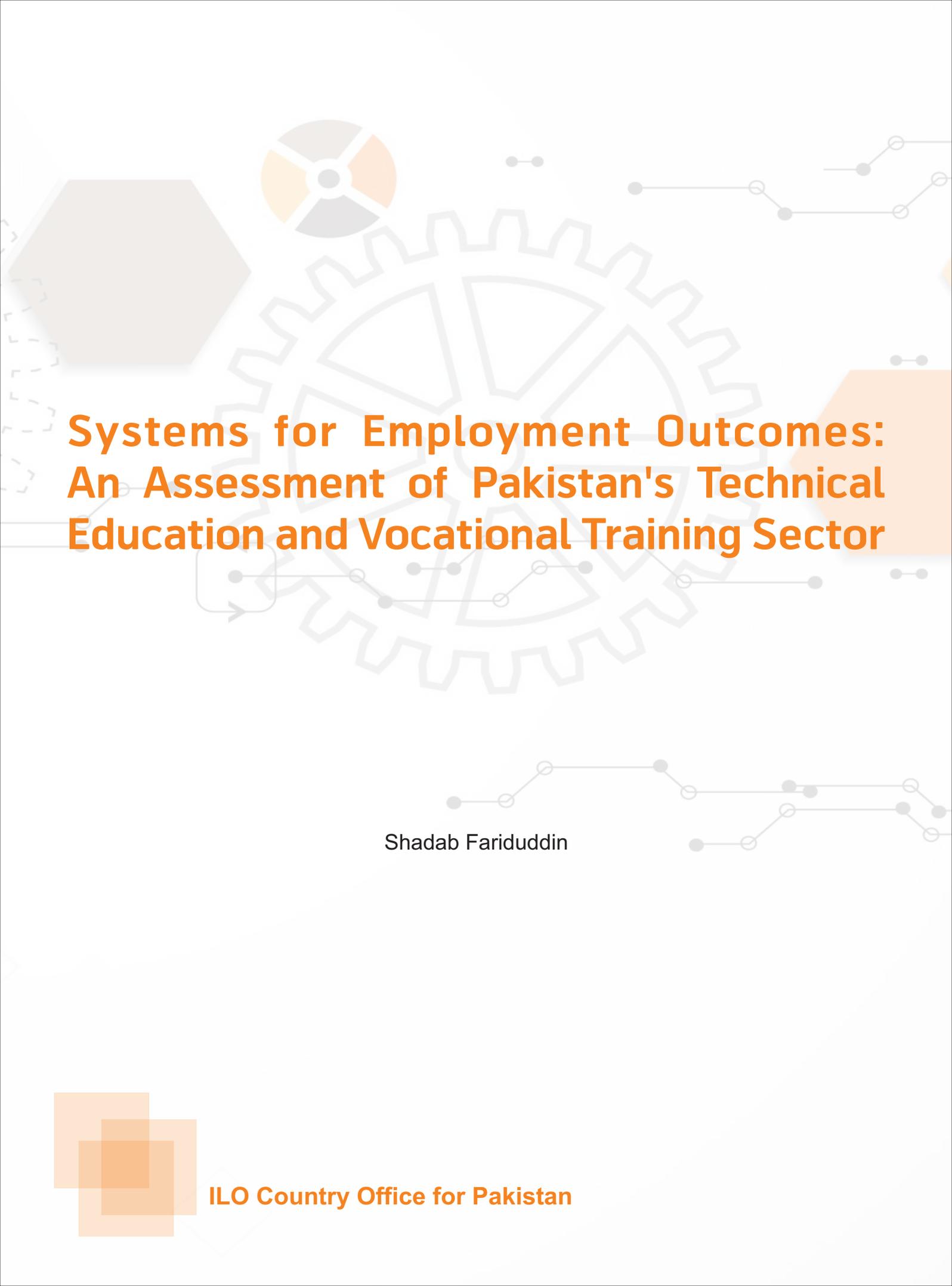
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Systems for Employment Outcomes: An Assessment of Pakistan's Technical Education and Vocational Training Sector



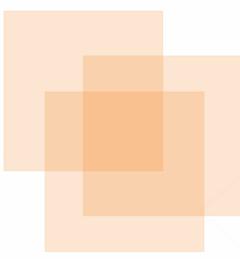
ILO Country Office for Pakistan





Systems for Employment Outcomes: An Assessment of Pakistan's Technical Education and Vocational Training Sector

Shadab Fariduddin



ILO Country Office for Pakistan

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Preface

Pakistan's youth unemployment stands at 9 percent, one of the highest in the region. Solution to this problem lies in revitalizing and modernizing institutions of technical & vocational education and training (TEVT) in Pakistan. Effective revitalization begins with an in-depth assessment of ground realities.

ILO has funded this ground-breaking study that documents current practices and approaches TEVT institutions undertake to improve employability prospects for their students. The study covered 126, government, semi-government, for-profit, non-profit and industry-led institutions across Pakistan. I am glad that FCG Human Capital (FCGHC) has made extra efforts to publish the study in collaboration with ILO Office in Pakistan.

I hope this publication will benefit TEVT institutions, policy-makers, employers, workers, donors and all other stakeholders striving towards reforming TEVT sector so that it plays a more vibrant role towards youth employment in Pakistan.

Ingrid Christensen
Country Director, ILO, Pakistan

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Acknowledgements

This ground-breaking study presents the findings of the first-ever inventory and assessment of Technical Education and Vocational Training institutions across Pakistan. This in-depth study documents current practices and approaches that TEVT institutions undertake to improve employment outcomes for their students.

The study also compiles basic information on types of programmes and qualifications, courses in high demand, profile of students and status of infrastructure. It is hoped that this study will serve a wide range of audience: policy makers, donors, government authorities, civil society, researchers and academia.

I must acknowledge that without the help of responding organizations, this study would not have been completed at all. All TEVT institutions willingly and openly provided information asked for in a lengthy questionnaire. On behalf of the ILO and FCG Human Capital (FCGHC), I thank them all.

I must also thank the ILO for assigning us this pioneering study and express the hope that we have lived up to their expectations. The report is possible because of the extremely valuable support and contribution from a host of people. I would like to acknowledge in particular the contributions from Syed Saad Hussain Gilani, Senior Programme Officer, ILO and Mr Paul Comyn, Senior ILO Specialist on Skills to the finalization of this study. The support provided by Mr Abid Niaz Khan, ILO Project Coordinator towards proofreading this document, is highly appreciated. Within FCGHC, Asghar Hussaini, Rana Imran, Shahzad Bukhari and Tahir Iqbal have been instrumental in making this report possible. My thanks to all of them.

I have made every effort to make the report error-free. Responsibility for any errors that might remain, along with overall responsibility of the study, rests solely with me.

Shadab Fariduddin
CEO and Lead Consultant
FCG Human Capital Pvt. Limited
Karachi
Emails:
shadab@fourcg.com
sfuddin@gmail.com

Executive Summary

The current Technical Education and Vocational Training (TEVT) system in Pakistan was designed to meet the needs of industrialization in the 60s. Over the decades, the system has fundamentally changed due to technological advancements in almost every sector of economy-changing employers' needs with respect to skilled workforce, shifts in employment patterns both local and overseas, and advent of private non-profit and for-profit providers in the face of receding role and quality of public sector TEVT institutions.

This study (conducted from November 2013 to May 2014) attempts to contribute towards a comprehensive knowledge-base about the current situation of Pakistan's TEVT institutions mainly comprising: organizational practices; the types and number of institutions; the qualifications available to students and the profiles of target markets; degree of employers' involvement with TEVT institutions; current status of current ancillary services such as job placement and career counselling; students' selection procedures; exams and assessment mechanisms and status of processes related to (i) monitoring and evaluation (ii) entrepreneurship training and support, and (iii) research being conducted by the TEVT institutions.

The ILO commissioned this first ever assessment of the TEVT institutions across Pakistan. The assessment provides critical insights into the current state of effectiveness of the TEVTs and should inform any future capacity-building support by the ILO and other stakeholders for vocational education and training institutions.

The assessment captures basic information about the TEVT Organizations. It also presents an in-depth analysis of the system-wide approaches within TEVT institutions which affect the employment outcomes for TEVT students. The focus of the assessment is not individual colleges or institutes but TEVT institutions which may have several affiliated institutes or colleges operating under their purview.

Section one of the report contains the inventory of physical infrastructure and the academic programmes offered at these institutions. Section two discusses the factors that potentially impact the employment outcomes of the TEVT students. It provides data on the existence and quality of the aspects of TEVT institutions listed below. These are all directly or indirectly linked to ensuring that TEVT students secure employment that is related to the skills they have acquired at TEVTs. These focal areas of assessment are:

1. Formal linkages with, and involvement of, employers and enterprises in training design, implementation, and assessment
2. Selection and monitoring of trainees for the courses
3. Selection of courses in line with market demand
4. Training follow-up mechanisms
5. Career counselling and vocational guidance (CC/VG)
6. Jobs placement services
7. Entrepreneurship development
8. Research in TEVT institutions.

Section two also contains case studies of current practices that explains the process contributing in achieving positive employment outcomes.

Against a planned sample of 62 TEVTs the study assessed 126 institutions in three Provinces, classified in six categories: (i) public; (ii) semi-public; (iii) private (fee-based, for-profit); (iv) private non-profit; (v) NGO-led; and (vi) industry-led institutions. Full details of the types of respondent institutions are shown in Tables 1 and 2.

Summary of key findings of the study is as follows:

- Diploma is the most in-demand qualification offered across the spectrum of TEVT institutions. The target market is predominantly youth aged 15-29 years. The top five trades in demand for Diploma are: **electrical, civil technology, beautician, computer applications and tailoring**. The Diploma is followed by six-month courses, which are offered by all types of institutions for all applicable ages. Bachelor's and post-bachelor's degree programmes are very uncommon, offered by only four to eight per cent of institutions
- Overall 56 per cent of all TEVT institutions have no **formal linkage with local employers**. Meaningful and active participation of employers in governance and management of TEVT is weak with only 39 per cent of TEVTs reporting that they have employers' representation in their governing or advisory bodies. In NGO-led and fee-based private TEVT institutions, the role of employers is even lesser.
- Around 49 per cent of TEVT institutions **conduct any aptitude** tests for potential students and most of those tests are rather perfunctory. The practice of matching courses with candidates' vocational aspirations is followed primarily in industry-led and semi-government institutions and less among other institutions.
- The **alignment of courses offered with industry requirements** is also characterized by weak practices: only 32 per cent of all institutions report that they formally consult employers before finalizing their programme schedules. Although all TEVT institutions maintain electronic databases of graduated students, only 33 per cent of them use the database to periodically check the employment status of their students through any kind of tracer studies. Overall 79 per cent of institutions indicate that the qualifications they provide are recognized by the industry.
- TEVT institutions have very weak systems in new and emerging employability factors, such as: **career counselling and vocational guidance (CC/VG)**, job placement services, entrepreneurship development and in-house research and development. CC/VG was absent in 62 per cent of all institutions. Only 33 per cent of institutions have any formal office or department providing job information and placement services to their graduates. Although about 50 per cent of all institutions claim that entrepreneurship skills and/or experience are included in the qualifications offered, ancillary services such as business "incubation" and knowledge of (and links to) the start-up funding required for successful entrepreneurship are not part of the curriculum. About 24 per cent of institutions report having an in-house research cell, although these produce only rudimentary outputs.

In nutshell, of the eight focal areas of assessment, TEVT institutions are found weak in six of them namely: i) formal linkages with employers; ii) training follow-up mechanisms; iii) career counselling

and vocational guidance (CC/VG); iv) jobs placement services; v) entrepreneurship development; and vi) research in TEVT institutions.

TEVT institutions need support in terms of policy cover for certain areas. For example there is no policy framework for career counseling/vocational guidance, incubation and innovation. While public policy would help, the institutions need to invest in and develop themselves holistically across all eight systemic areas required for generating positive employment outcomes. To achieve this end, TEVT institutions need to adopt a systemic approach towards ensuring their institutional effectiveness, which will require technical assistance, capacity building support, investment in human resources and organizational systems mainly under the aegis of NAVTTC, provincial TEVTAs, donors and technical agencies. TEVT institutions should organize themselves to cater to needs of their clients, which are best fulfilled when a full-range of services aimed at employability enhancement are built into institutional systems. These multiple services will support the core of 'skill building' and thus make TEVTs both relevant and demand-driven.

For TEVT institutions to remain relevant, useful, and avoid becoming obsolete, there is a need to adopt modern methods of 'TEVT management, employment support and placement' for enhancing the employability of their students.

Abbreviations

BISP	Benazir Income Support Programme
BTE	Board of Technical Education
CC/VG	Career Counselling and Vocational Guidance
COTHM	College of Tourism and Hotel Management
IBA	Institute of Business Administration
ILO	International Labour Organization
KP	Khyber Pukhtunkhwa
LUMS	Lahore University of Management Sciences
NAVTTTC	National Vocational & Technical Training Commission
NUST	National University of Science and Technology
PSDF	Punjab Skill Development Fund
TEVT	Technical Education and Vocational Training
TEVTA	Technical Education and Vocation Training Authority
TTB	Trade Testing Board

Introduction

Technical Education and Vocational Training (TEVT) is considered to be central to the socio-economic goals of Pakistan, which currently faces high youth unemployment and is in need of equitable income growth and industrial uplift.

The International Labour Organization (ILO) is at the forefront of promoting employable skills across the world and it considers TEVT essential in ensuring a country's competitiveness in the global labour market and ensuring decent work for all.

In 2008 the World Bank sought assistance from the ILO and studied ILO's approaches towards TEVT in order to design "...a new capacity development programme on TEVT for policymakers and senior technical staff from the Bank's client countries, intended to help member countries in the search for innovative methods to reform their current TEVT and education systems."¹

ILO advises a system-wide approach towards enhancing the relevance of skills development programmes. A TEVT institution must reform all its systems and align them to the needs of the market that includes learners as well as employers. Employers' inputs and needs should be factored into the selection of candidates, design of curriculum, class and laboratory work, instructors' selection, credentialing of qualifications, the graduates of TEVT institutions to ensure smooth entry of TEVT students into the job-market. Similarly, unless TEVT students are developed holistically through internships, apprenticeships, soft skills, job search skills, and career counselling, they will remain ill-prepared for wage- or self-employment.

TEVT institutions in Pakistan are traditionally focused on preparing their students for wage-employment whereas many developing countries have now introduced entrepreneurship education as a subject for students in schools, in order to reach early school leavers. Such education can be useful for all types of students but is considered particularly relevant for TEVT students because they are better equipped than students in general education for production of goods and services that others are willing to pay for.

The current TEVT system in Pakistan was designed to meet the needs of industrialization in the 60's. Over the years the TEVT system has evolved: private sector has entered into the system but these providers have limited scale of operations while the public sector, which has the national scale and outreach now finds its relevance and quality declining. As of now, the TEVT system includes a wide range of institutions which provide technical and vocational education. A unique feature of Pakistan's TEVT system is that universities and higher-education colleges also offer TEVT courses, degree programmes and qualifications. This diversification by tertiary institutions is caused by the unmet demand for high-quality TEVT services that the public sector cannot provide both in terms of quantity and quality.

Although some new initiatives in the private, for-profit and NGO sectors have emerged as models worth replicating, as noted in section-II of this report, there is no comprehensive knowledge about types and number of institutions, qualifications available to students, profile of target market, level of employers' involvement, status of modern ancillary employment enhancement services such as job placement career counselling, monitoring and evaluation, and research in TEVT institutions.

¹<http://web.worldbank.org/WBSITE/EXTERNAL/WBI/WBIPROGRAMS/EDUCATIONLP/0,,contentMDK:21782476~menuPK:460926~pagePK:64156158~piPK:64152884~theSitePK:460909,00.html> (Date Accessed: December 20, 2013)

Without such an up-to-date knowledge-base, all TEVT-related policy reforms and future programming by donors and government and development agencies is likely to be built on weak foundations. Realizing this critical gap in knowledge the ILO has designed this study, to understand the dynamics of employment outcomes of TEVT system in Pakistan.

About the Study

The purpose of this assessment is to provide critical insights into the effectiveness of TEVT in Pakistan in terms of employment outcomes for TEVT students.

Objectives of the Rapid Assessment

The overall objective of this study is to facilitate the policy-makers of human resource development in Pakistan to promote access to transform TEVT System into a high-quality and employment-oriented vocational education and training and enable people seeking the skills and knowledge to prepare themselves to enter the job market with better opportunities to secure decent employment. Specifically, the assessment of TEVT institutions was conducted to meet the following objectives:

1. Establish an inventory of TEVT providers in Pakistan: Collection of basic information about the TEVT-providers in government, semi-government and private sectors, and
2. Conduct an assessment of system-wide approaches within an institution which result in positive employment outcomes for TEVT graduates: Ascertain the degree to which these employability factors are present or otherwise within the organizational systems of a TEVT institution.

System-wide approach refers to presence and functioning of organizational systems that work in sync with each other and support graduates before, during and after their training towards ensuring gainful employment.

Methodology

Instrument Design & Pre-Testing

The study design incorporated all the important factors of positive employment outcomes for TEVT students. The instrument for the rapid assessment² had three main components:

- Part One concerns the collection of basic quantitative data from the training institutions: this forms an 'inventory' of major training-providers in the public, semi-government and private sectors.
- Part Two involved data concerning the factors of employability and allowed a responding institution to assess itself and report how well these factors are present or otherwise. Responses were sought from a member of senior management of the institution having ample knowledge of prevailing systems/mechanisms.
- Part Three focuses on practice and was designed to collect case studies of institutions to better understand current practice with respect to 'employment facilitation'.

The instrument was pre-tested with seven responding organizations to find out:

- The amount of time required to complete the questionnaire
- Whether the questions, statements and categorizations were easily understood by the respondents
- Whether the measurement scale was adequate and appropriate for the purpose
- Whether the response fields in the instrument were adequate for capturing the responses, especially the qualitative ones.

Based on the results of the pre-test, both the instrument and the coding scheme were revised. A list of functional definitions for the technical terms in the instrument was prepared and given to the enumerators, who used it to give standard answers in response to queries from respondents.

Three teams of enumerators (total 12) were trained: one each for Sindh, Punjab and Khyber Pakhtunkhwa (KP). Baluchistan province could not be included due to security in field, accessibility and outreach limitations. Province-wise lists of potential respondents were prepared using secondary sources. These included listings and databases from the ILO, NAVTTC, Sindh TEVTA, Chambers of Commerce and Industry and newspapers, magazines and journals. City-wise lists of respondent institutions were then prepared. These institutions were approached through email, phone and fax and invited to participate in the research. Those who consented became the final list of 138 respondent institutions. The team then approached each institution to request an interview with either the head of the institution or a senior member of the management team. Then, the trained enumerator, along with an associate, conducted an interview with the key informant and gathered information for case studies. These sessions lasted for two to three hours.

In all, 12 respondent institutions did not engage in the assessment, resulting in the final total of 126 responding TEVT institutions.

²Shown in full in Annex 02.

Selection Matrix of Responding Institutions

A sampling frame for TEVT institutions was made based on their types, significance and accessibility. Initially it was considered that 60-70 institutions across Pakistan would be a good number for this study. Depending upon operational scale and outreach of the category, a level of priority was assigned to each type and then decided that for 'high' priority 100 per cent of respondents would be included and for 'medium' and 'low' priority a sample would be chosen in a manner that ensured geographic representation as well. The following table resulted from this selection logic.

Table 1: Target Types of TEVT Institutions for Sampling

Type of Institution	Priority level assigned	Total Number	Sample	Target Sample
1. Provincial TEVTAs and Directorates of Technical Education	High	5	100%	5
2. Skill Development Councils	High	5	100%	5
3. Industry-led Training Institutes	Medium	10	50%	5
4. Donor-Funded Vocational Training Program me	Medium	10	50%	5
5. Social Welfare Departments & Vocational Training Programmes for Women	Low	5	40%	2
6. Private Sector Vocational Training Institutions	Medium	30	50%	15
7. Vocational and Technical Institutes run by Armed Forces of Pakistan	Low	5	40%	2
8. Technical & Vocational Skills Program mes of Engineering Universities	Medium	10	50%	5
9. Government-funded TEVT Programmes	Medium	10	50%	5
10. Vocational Skills Program mes and Institutes run by the NGO Sector	Low	20	40%	8
11. Others	Medium	10	50%	5
TOTAL		120		62

Based on the feedback from respondents during the pre-test, the categories were aggregated into the following five types of TEVT institutions and the same types were followed throughout the study:

1. Government/Public institutions
2. Private/Fee-Based institutions (for-profit)
3. Private - NGO-Led institutions
4. Private - Industry-Led institutions
5. Semi-Government³ institutions

Defining a TEVT Institution for this Study

The object of assessment in this study is a TEVT Institution, the purpose of which is to build the skills of students and to prepare them for eventual wage-employment or self-employment. A TEVT institution for this study therefore means an organization or an entity, duly registered under the laws of Pakistan that is offering courses, programmes and qualifications in the field of technical education and vocational training. Such an organization may or may not run a number of institutes or campuses. For example Sindh TEVTA is an institution that runs over 120 institutes and colleges in 23 districts of Sindh, with a combined enrolment capacity in the range of 30,000-60,000 per annum. For this study the Sindh TEVTA is one responding institution. Similarly, the PIA Training Institute is also categorized as an institution for this study because all systems are practiced at its single campus.

Understanding this difference is of paramount importance to appreciate the significance of this study. By assessing an institution, the study captures how well-spread the employment-enhancement practices are across all constituent colleges or institutes that come under the TEVT institution.

Coverage and Scope of the Assessment Study

This study has a national coverage and it is significant for the fact that this is the first-ever study of its kind on the subject. It should be noted that the study covers only those TEVT institutions that are involved in providing training services to students. It does not cover any institution involved in policy making such as the Ministries, the National Vocational & Technical Training Commission (NAVTTTC) or those bodies tasked with conducting examinations like the Trade Testing Boards (TTBs) and provincial Boards of Technical Education (BTE). Geographically the study covered Sindh, Punjab and Khyber Pukhtunkhwa (KP).

Duration of the Assessment Study

The study was conducted from November 2013 to May 2014.

Final Tally of Respondents

Against a planned sample of 62 as described above in Table 1, the study successfully covered 126 TEVT institutions across Pakistan. The break-up is given in Table 2:

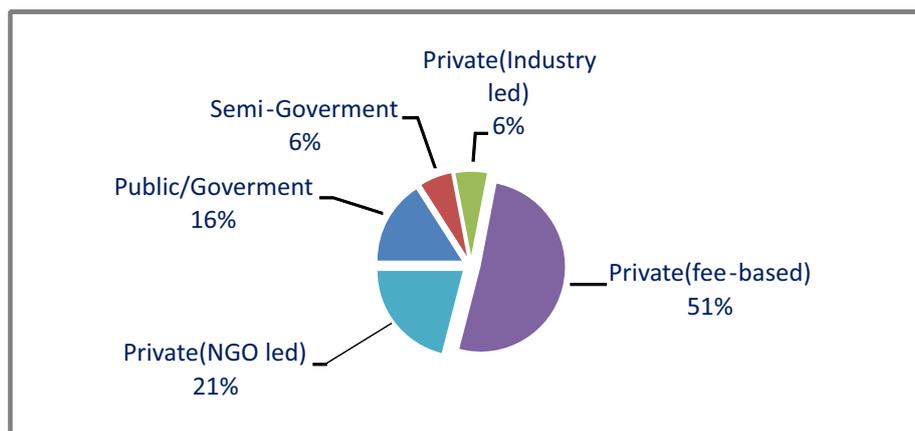
³ Defined as semi-autonomous corporate entities of the government

Table 2: Final List of Respondent Institutions and Their Categories

Type of Institution	Number of Respondents
Government/Public institutions	20
Private/Fee-Based (for-profit) institutions	64
Private/NGO-led institutions	26
Private/Industry-led institutions	8
Semi-Government institutions	8
Total	126

The percentage representation of each category in the final tally is captured by the graph below.

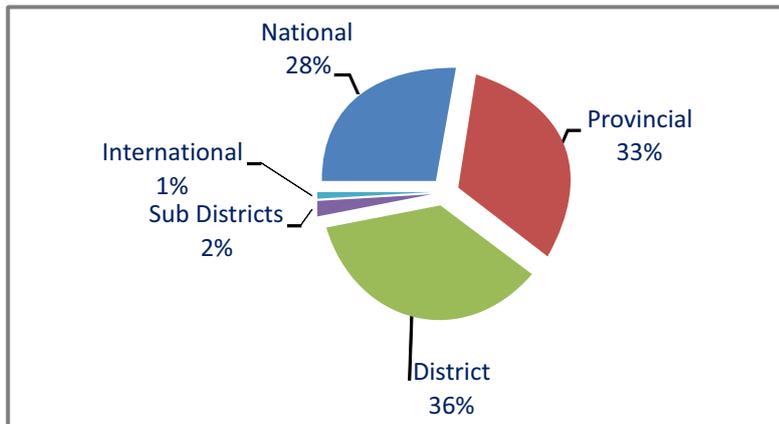
Figure 1: Types of Institution



The study covered all types of target institutions such as: Provincial TEVTAs and Directorates of Technical Education; Skill Development Councils; Industry-led Training Institutions; Donor-funded Vocational Training Programmes; Private Sector Vocational Training Institutions; Government-funded TEVT Programmes; Technical & Vocational Skills Programmes of Engineering Universities; and Vocational Skills Programmes and Institutes run by the NGO Sector

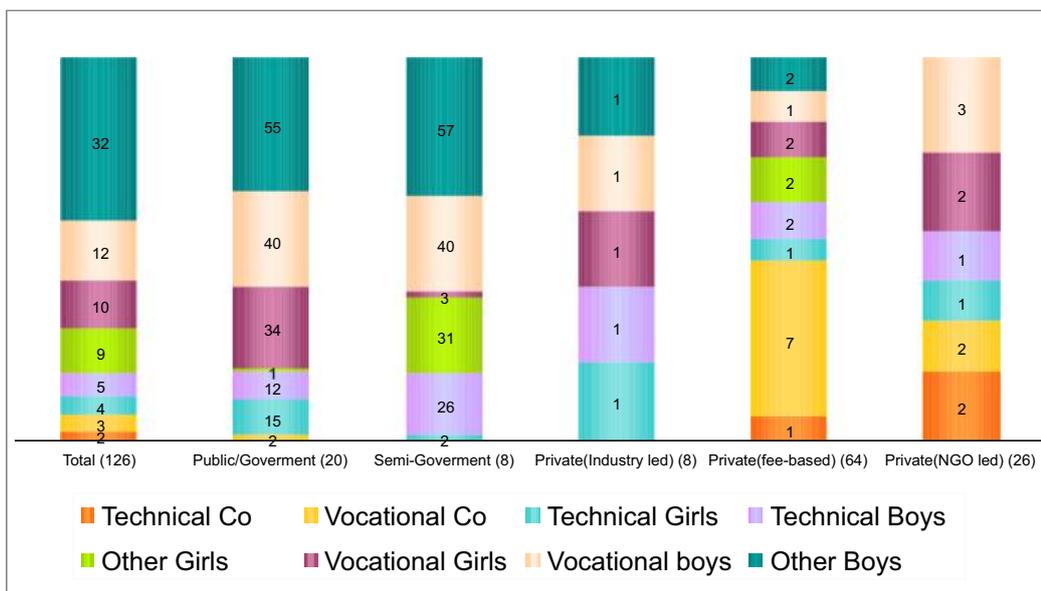
The responding institutions have a variety of geographical coverage:

Figure 2: TEVT Coverage by Administrative Division



These institutions run a total of over 300 constituent institutes and colleges, spanning a wide variety of technical and vocational training entities for both men and women.

Figure 3: Type of Institutes under each Category of TEVT Institution



Overall there are more institutes (or places for training) for boys and men than for girls and women, although the sex ratio in Pakistan is almost 1:1⁴. Institutes for boys/men outnumber those for girls/women by 3:1 on an overall basis and by 2:1 in institutes run by public and semi-government institutions. Private, fee-based organizations seem to provide the least access to girls, where the ratio is 1:3.5. Thus it is clear that the distribution of TEVT resources is heavily skewed in favour of men: this is corroborated by the enrolment data for various qualifications as presented in the next section of the report.

⁴ Pakistan Census Organization: <http://www.census.gov.pk/> (Date Accessed: May 20, 2014)

Research Findings

The research findings are presented in the following manner. Section One presents the findings concerning physical infrastructure and the academic programmes offered at the TEVT institutions. Section two presents the findings concerning the institutional factors that are likely to impact the employment outcomes for TEVT students.

Section One: Inventory of TEVT Providers

Programmes and Beneficiaries

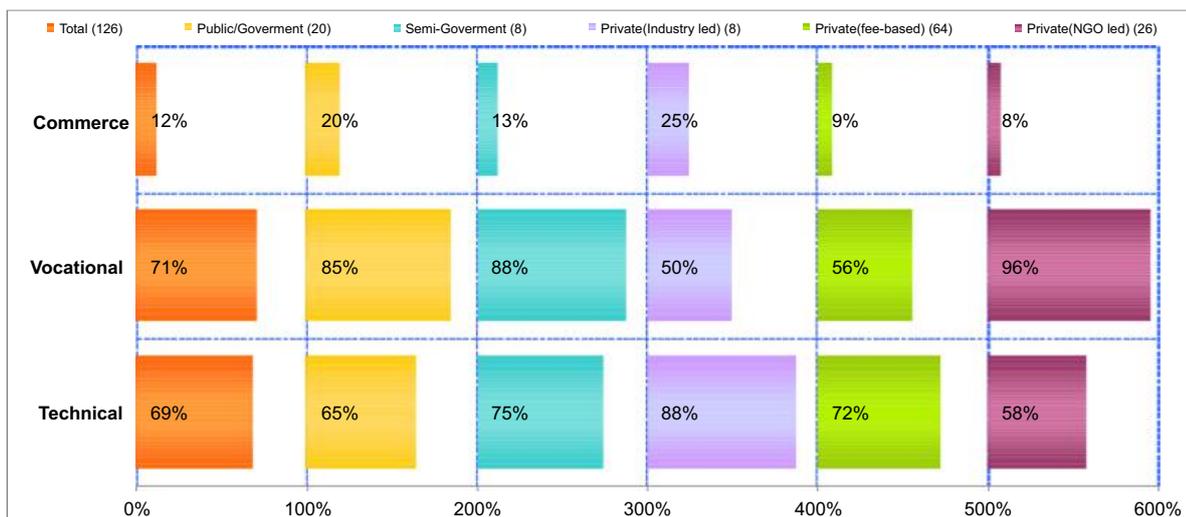
The survey gathered data about the types of programmes offered; the levels of competencies; the intended students for whom the courses are offered; the shifts operated; the age-range of enrolment and enrolment capacities and the duration of the programmes. It also examined library facilities, the number of classrooms and laboratories and the availability of electricity. There were over 50 variables in this area.

Types of Training packages offered by TEVT Institutions

The TEVT Institutions in Pakistan are offering three main types of courses including:

- Technical courses:** Courses with more than one year duration comprising Diploma, Bachelors and higher levels of education in generic trades including agriculture, mechanical & civil engineering and other high technical disciplines.
- Vocational courses:** are certificate level courses which are shorter in duration and prepares people for specific trades, crafts and careers at various levels from a trade, a craft and technician levels.
- Commerce:** are specific courses in commerce discipline in different levels including certificate, diploma, bachelors and post-graduate levels. Commerce was merged with Technical and Vocational Courses after reforms in late 1990s.

Figure 4: Types of Programmes by Institution Category



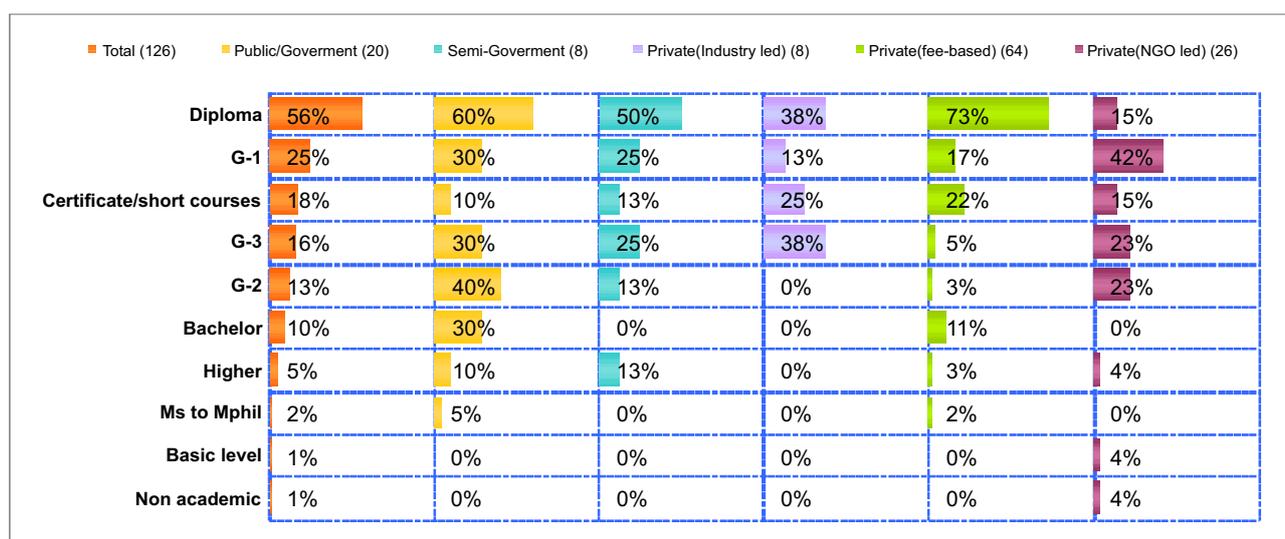
- Technical programmes are offered by 88 per cent of industry-led institutions and by 69 percent of institutions overall. Only 58 per cent of NGO-led institutions offer technical programmes.
- Private NGO-led institutions take the lead in offering vocational programmes with 96 per cent of their courses fall in the vocational category against a total average of 71 per cent.
- Only 12 per cent of programmes overall are commerce-related: these are offered to a greater extent by public (20 per cent) and industry-led (25 per cent) institutions.

Available TEVT Qualifications

The technical and commercial vocational education starts from upper secondary level (grade 11) to master level. Upon completion, the education leads to higher secondary certificates, diplomas, bachelor degrees and master degrees. Vocational training consists of short courses which are targeting youths and adult with 6-12 years of schooling. Vocational certificates G-III, G-II, G-I and diplomas are the result of completed vocational training.⁵

The nature of available programmes is closely linked with the level of competencies that can be earned as a qualification at TEVT institutions. Figure 5 indicates the level of competencies available and offered at the responding institutions.

Figure 5: Qualifications Offered by TEVT Institutions



The Diploma is the most popular programme overall (56 per cent) across-the-spectrum of TEVT institutions except for NGO-led institutions, where G1 level takes lead. The figures for the Diploma are highest for private fee-based institutions 63 per cent followed by 60 per cent for Government institutions, 50 per cent for semi-Government ones and 38 percent for industry-led institutions. NGO-led institutions are more focused on offering trade and vocational competency level: G1 scores highest (41 per cent) followed by G2 and G3 at 23 per cent each⁶. Public institutions take the lead in offering the Bachelor's degree which is available from 30 per cent of them as compared with 10 per cent overall. Post-Bachelor's degrees are available mainly in public, semi-government and private, fee-based institutions. Semi-Government, NGO-led and industry-led institutions do not offer the

⁵ World Bank, National Qualification Framework Essentials, South Asia Human Development Unit; March 2009

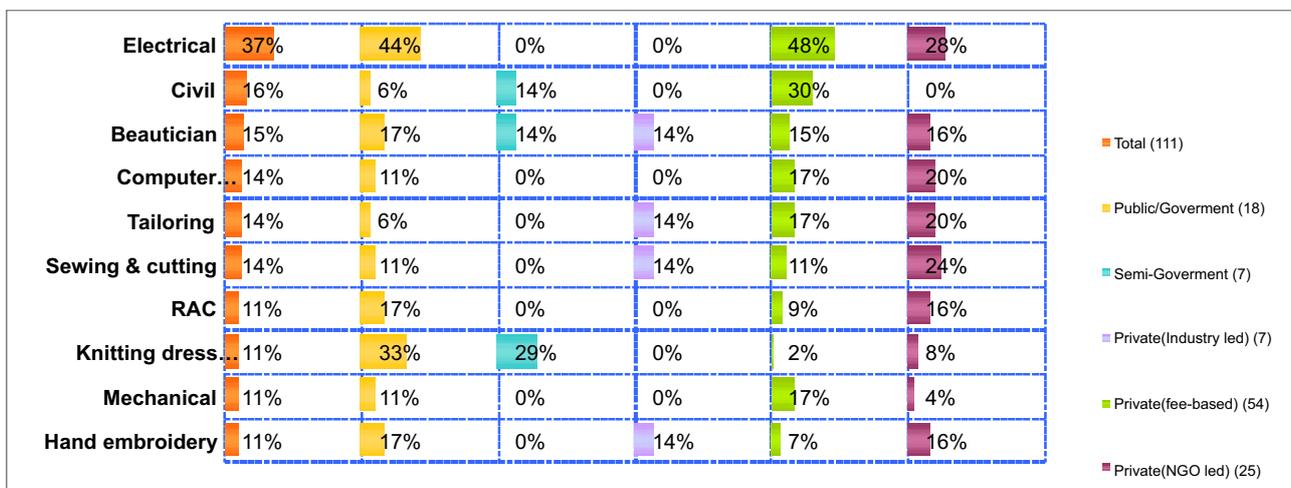
⁶ G1, G2 and G3 are competency levels in trade and vocational certificates (three months to 2 years). G3 is the lowest and G1 the highest vocational qualification. G1 is considered just below a diploma.

Bachelor's degree although all institutions except for the private-led ones offer a higher-than Bachelor's degree.

Types of Certificate Programmes

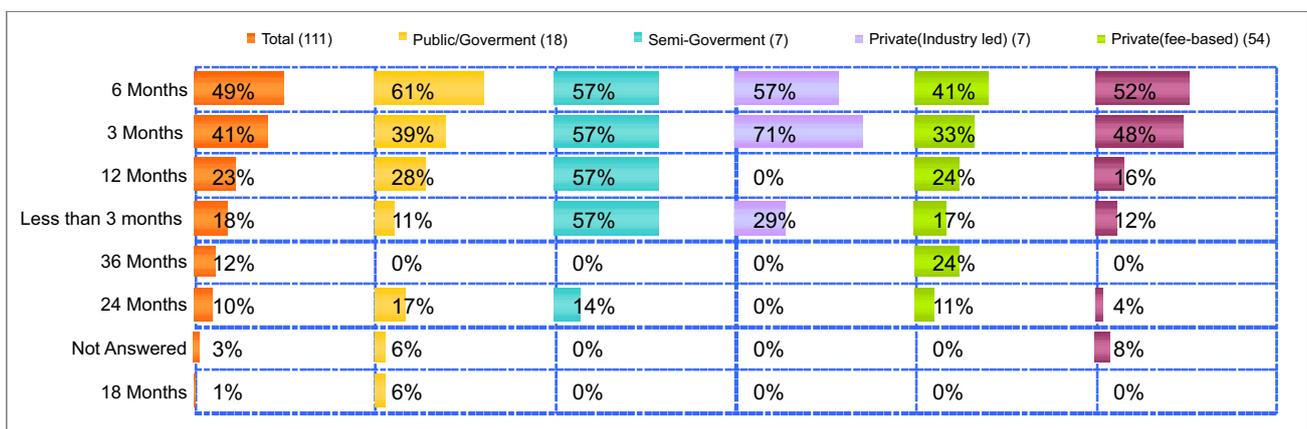
Certificate courses are offered in 111 of the 126 (88 per cent) of the institutions surveyed. The top five trades offered in this level of qualification (Figure 6) are: electrical, civil, beautician, computer applications, tailoring and sewing/cutting. The demand for these courses is specifically due to the fact that students consider them to be more economically viable with greater chances of employability in the market. Private (fee-based) institutions offer the second-highest percentage (33 per cent) of civil engineering courses.

Figure 6: Level of Demand for Certificate Courses



The 6-month short courses are most consistent across all types of institutions (Figure 7). The 3-month duration is preferred by industry-led institutions (71 per cent), which indicates industry's desire to have trained staff quickly on-board. Three-month and 12-month courses are common across all TEVT institutions: the exception is industry-led institutions which offer no courses under one year duration.

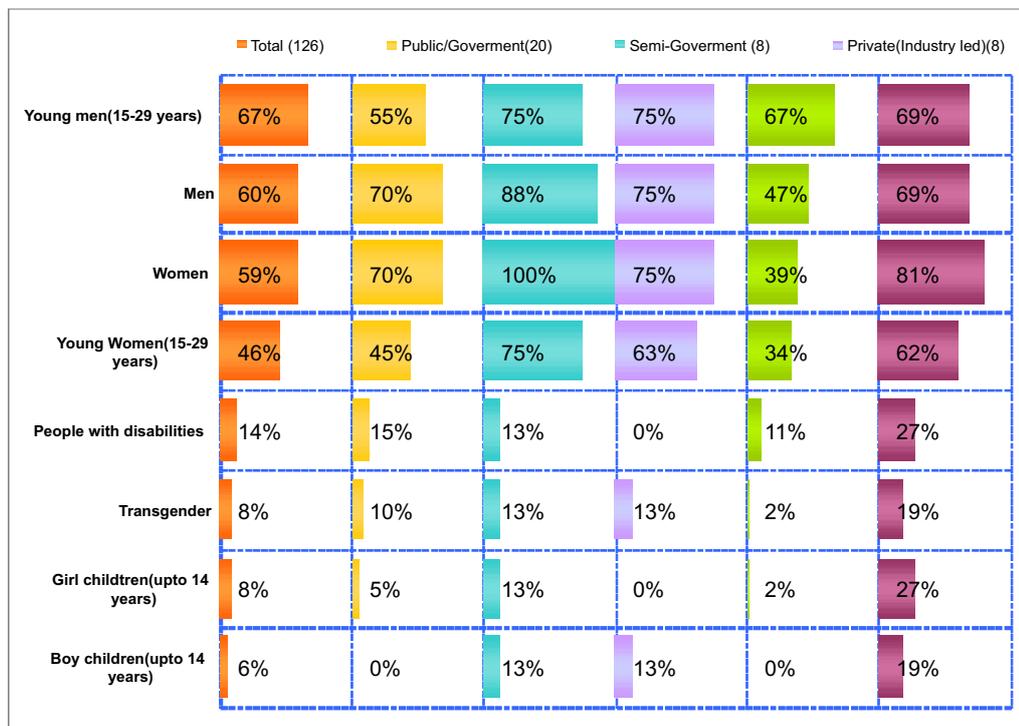
Figure 7: Duration of the Courses/Programmes



Beneficiaries' Analysis

TEVT Institutions in Pakistan are serving different categories of beneficiaries which generally includes (i) Men; (ii) Women; (iii) Young men (15-29 years); (iv) Young Women (15-29 years); (v) Boys (up to 14 years); (vi) Girls (up to 14 years); (vii) Trans-genders; and (viii) Persons with disabilities.

Figure 8: Courses Offered for Age-specific Target Markets, by Gender



There are useful insights across the gender spectrum: although men and women are almost tied at 60 per cent and 59 per cent respectively overall, NGO-led institutions offer more courses for women (81 per cent) than for men (69 per cent). Course offerings are skewed in favor of young men (67 per cent) compared to young women (46 per cent) overall.

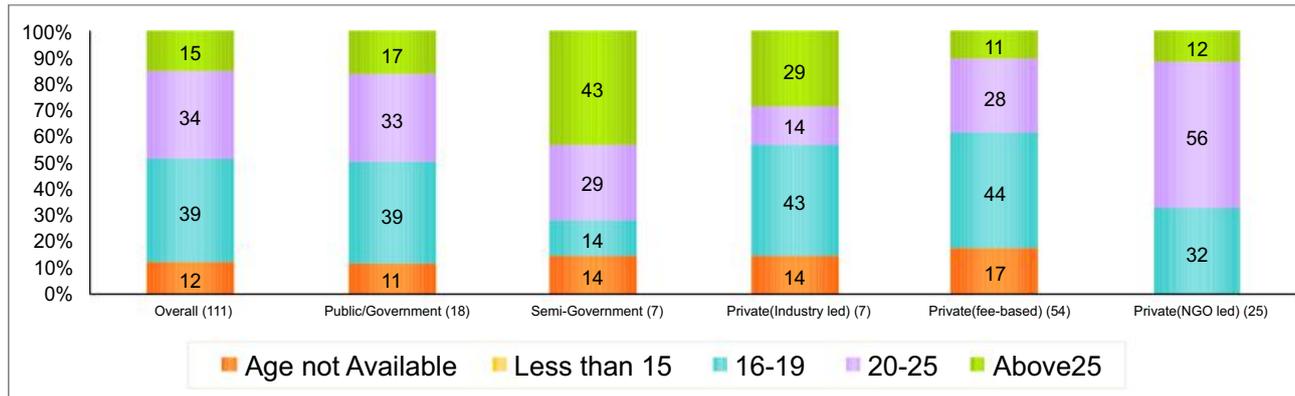
Private, fee-based and industry-led institutions are found to be offering no course (zero per cent) at all for people with disabilities, while these learners are served by NGO-led institutions (27 per cent), public (15 per cent), semi-government (13 per cent) and even private, fee-based training providers (11 per cent). However, industry-led institutions take second place (at 13 per cent) after NGO-led institutions (19 per cent) when it comes to serving another disadvantaged group: transgendered people.

In addition to the macro-level assessment given above, the survey also looked deeper into the current situation of the top TEVT qualifications in demand: short courses, diploma, and degree programmes. Each of them was assessed in terms of trades in demand, duration, age, enrolment, rate of graduation, and beneficiaries.

The majority of 16-25 year olds enroll in short courses (Figure 9). This age group consists of both new students and those who are looking to improve their skills and gain formal training experience. Only

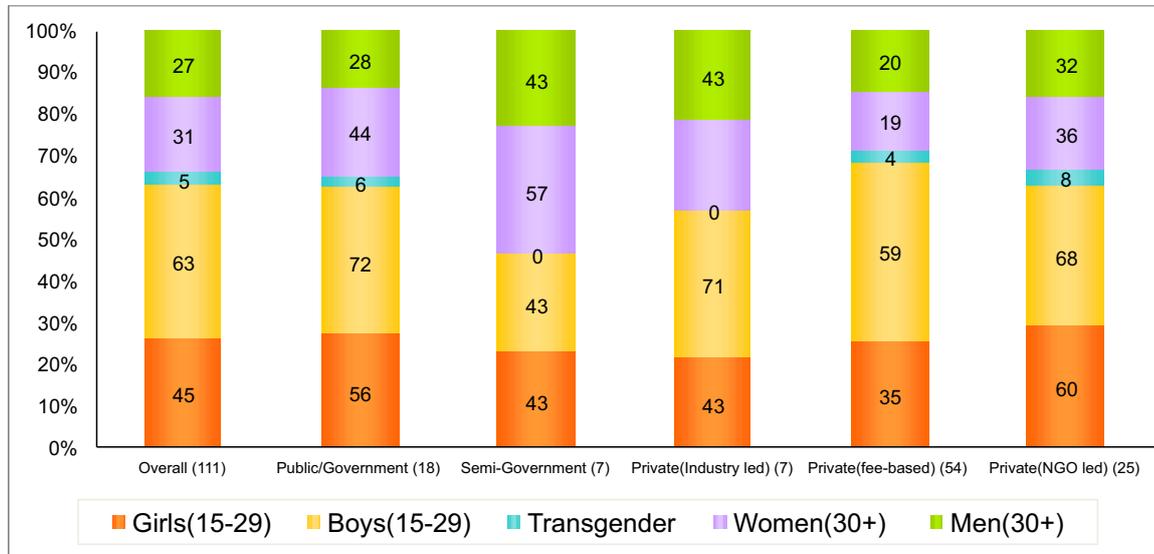
in the semi-government institutes is the enrolment trend contrary to the general trend: 43 per cent of enrolment in semi-government institutions is by people over 25 and 29 percent of those over 25 enroll in industry-led institutions.

Figure 9: Enrolment by Age Group



Beneficiaries of short courses (3-12 months) are rather mixed; this qualification is popular among boys, girls, men, women and transgendered persons, which constitute 5 per cent overall and are found in NGO-led (8 per cent), public (6 per cent) and private, feed-based (4 per cent) institutions.

Figure 10: Certificate Programme Participants by Gender

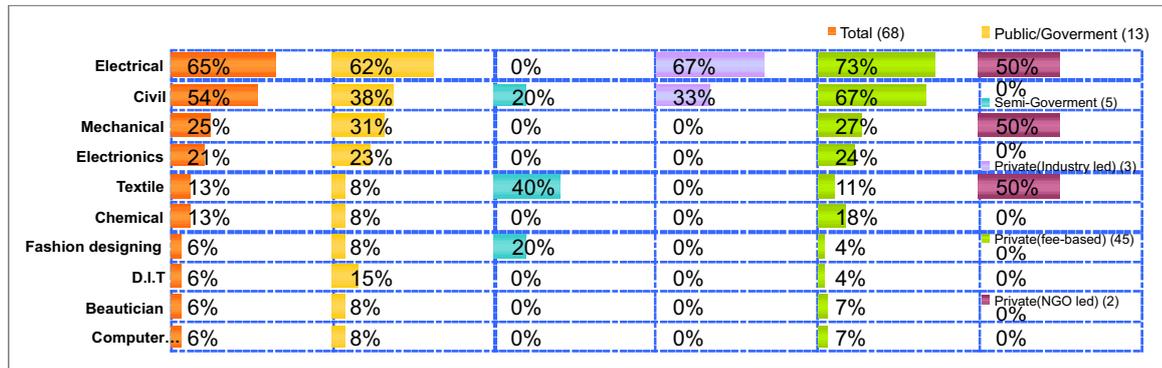


Diploma Programmes

The Diploma is the most commonly offered qualification (Figure 11), available in 68 of 126 TEVT institutions (46 per cent). Diplomas are widely accepted by local industries and as the duration of the course is shorter than the degree programme it is preferred by those students who want to enter the job market as quickly as possible. The socio-economic conditions of the students also play a role in this regard as fees for Diploma courses are generally lower than those for the certificate courses.

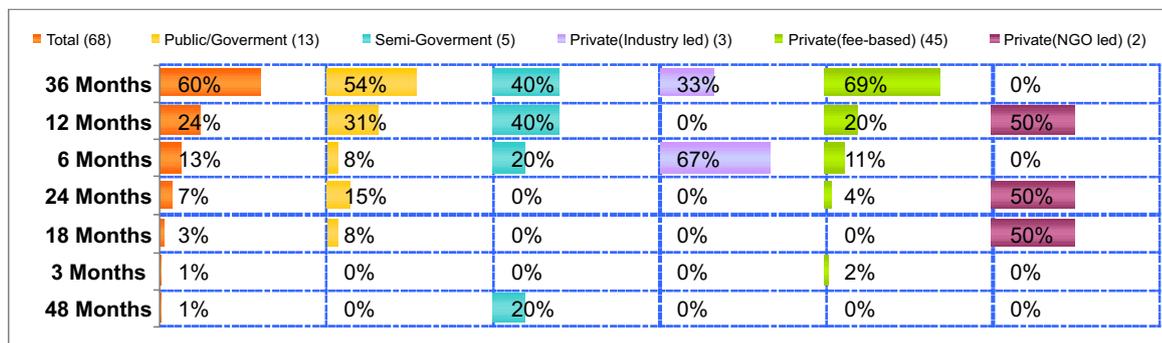
The top-five Diplomas preferred by students (both boys and girls) are all in the traditional fields of electrical (65 per cent), civil (54 per cent), mechanical (25 per cent), electronics (21 per cent) and textiles (13 per cent)

Figure 11: Diploma Courses/Programmes



Both public and private, fee-based TEVT training providers offer almost the same course. Fashion design, IT, beautician, computer accounting seem to be upcoming fields.

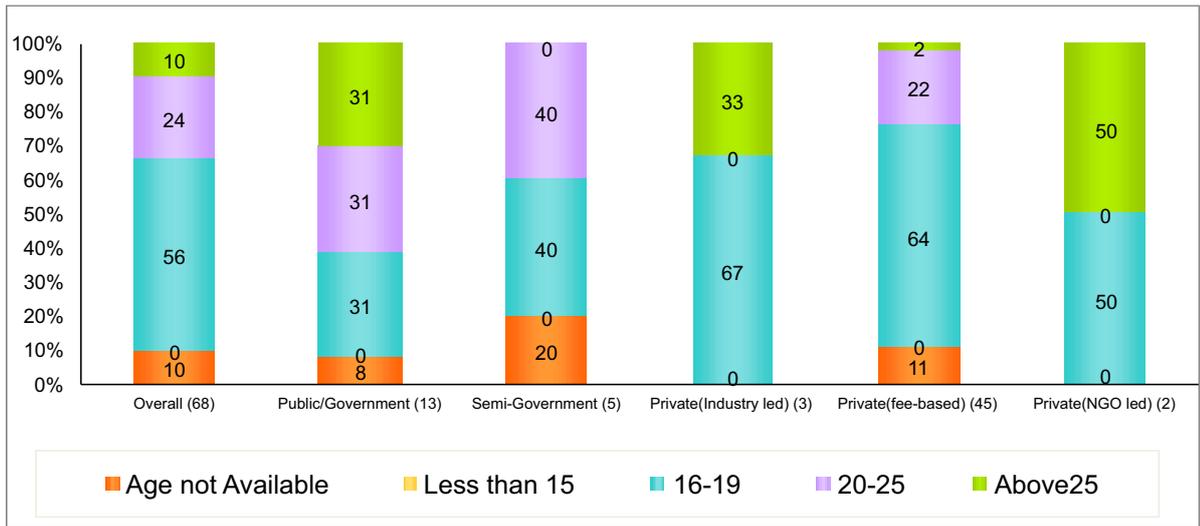
Figure 12: Duration of the Diploma Programmes



Public institutions offer the widest variety in terms of duration of diploma programmes. The 36-month Diploma is the most common across all types of institutions followed by the 12-month Diploma.

56 per cent of diploma enrolment is by 16-19 year olds, while 24 percent of people enrolled in Diploma courses are 20-25 years old, making it most suited and popular among youth population.

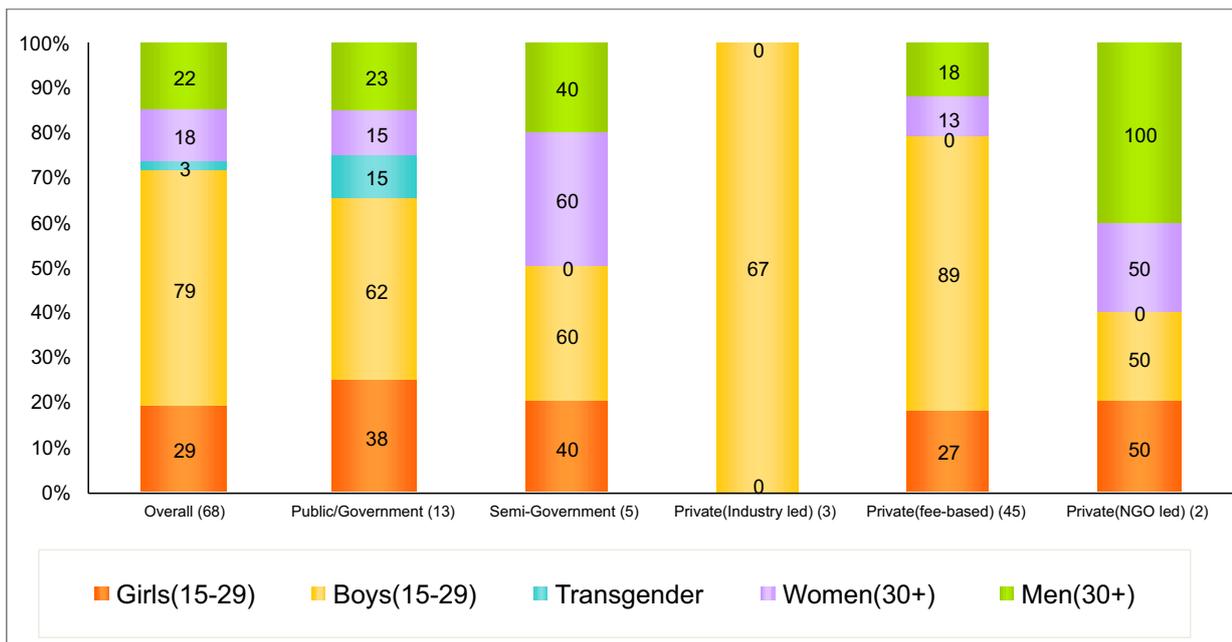
Figure 13: Maximum Enrolment by Age Group



An interesting picture emerges when diploma beneficiaries are analyzed by gender. The diploma scene is dominated by boys and men (79 per cent) as compared to girls and women (21 per cent). In public institutions boys' enrollment is 62 per cent compared to girls' at 38 per cent. The figures are very similar to those in semi-government institutions. The worst gender "ratio" comes from private, fee-based institutions which are dominated by boys between the ages of 15 and 29 (67%).

An encouraging aspect is the representation of transgendered people. Overall 18 per cent of institutions identify transgendered persons as diploma earners: these people are absent from the diploma programmes of private, fee-based and industry-led institutions. Transgendered people are mainly served by semi-government (60 per cent), NGO-led (50 per cent) and public (15 per cent) TEVT institutions.

Figure 14: Diploma Recipients by Age Group

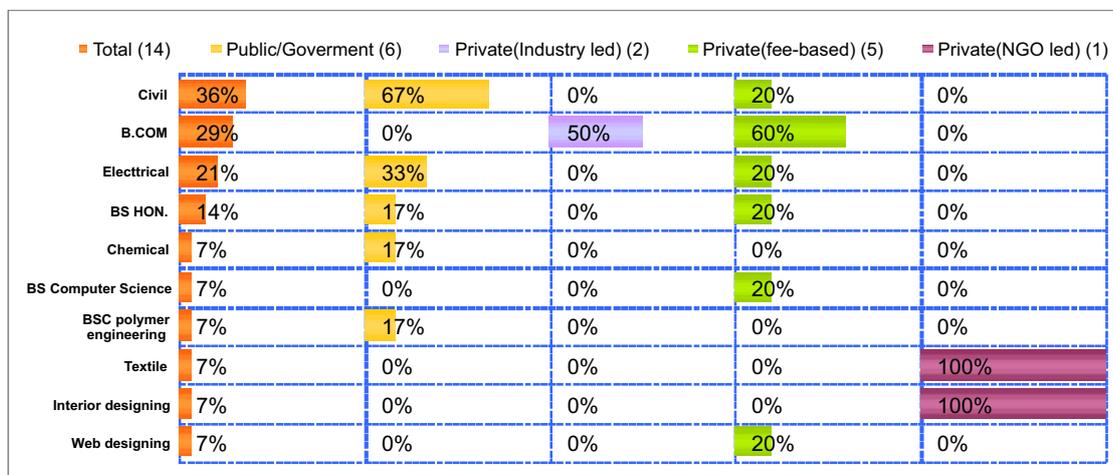


Bachelor's and Post-Bachelor's Programmes

Bachelor's and post-bachelor's degree programmes are very uncommon in the TEVT institutions surveyed. Only 9% organizations offer a Bachelor's degree and just 4% offer a post-Bachelor's degree.

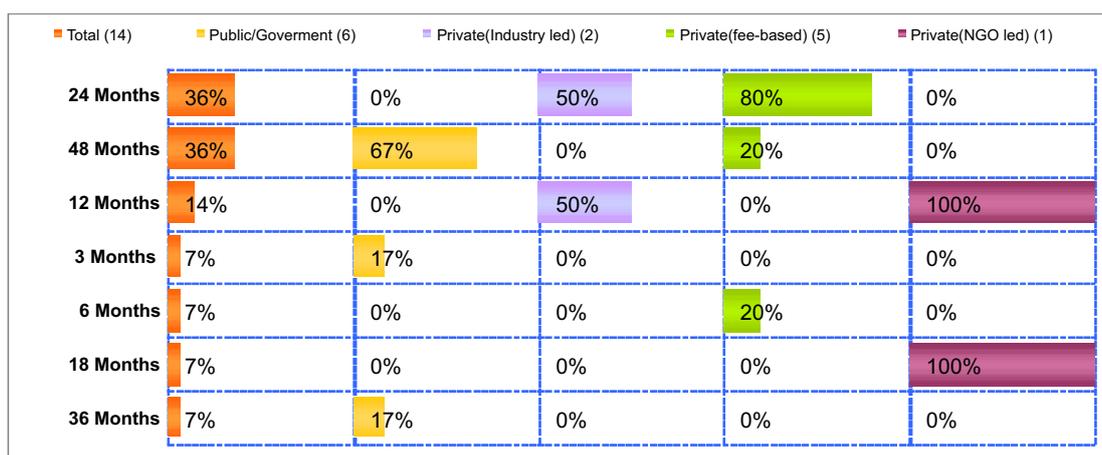
The top three Bachelor's degree programmes are civil (36 per cent), commerce (21 per cent) and electrical (21 per cent). While the public institutions are more focused on traditional trades like civil engineering (67 per cent), electrical (33 per cent) and chemical (17 per cent), the private sector is offering a Bachelor's degree in new technologies like computer science, web designing, textiles and interior decoration (Figure 15).

Figure 15: Bachelor's Degree Programmes



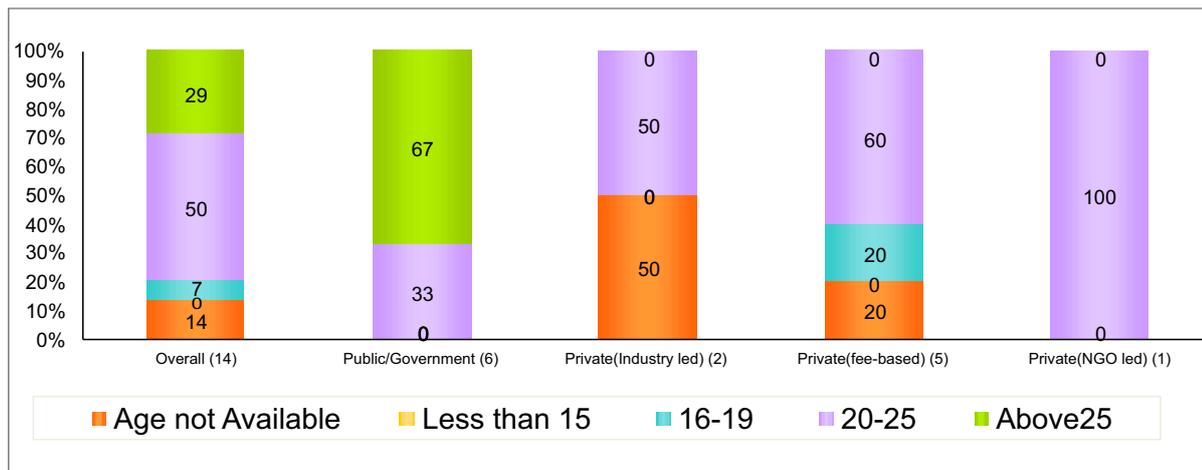
Two and four year Bachelor's degrees are most commonly offered by 36 per cent of the surveyed institutions. Only Private (NGO-led) institutions offer Bachelor's degree programmes for textile and interior designing courses.

Figure 16: Duration of the Bachelor's Degree Programmes



Much as with Diploma programmes, the majority of those enrolled in Bachelor's degree programmes are young people (Figure 17): 79 per cent of those in Bachelor's programmes are 20-25 years old. In private (NGO led) institutions 100 per cent of people enrolled in degree programmes are aged 20 to 25. In government institutions, however, 67 per cent of those enrolled are over 25 years of age.

Figure 17: Maximum Enrolment by Age Group



Summary of findings on infrastructure and enrolment

The details below show the key overall findings from the questions related to infrastructure, the shifts operated and enrolment capacity of the institutions are shown below.

- 99 per cent institutions operate morning shifts; 59 per cent operate both morning (8 am to 1 pm) and evening shifts (5 or 6 pm to 9pm); and 27 per cent institutions offer afternoon shifts (2 pm to 6 pm).
- Qualifications offered include Certificates (88 per cent), Diplomas (54 per cent), Bachelor's degrees (9 per cent) and post-Bachelor's degrees (3 per cent).
- 28 per cent of all institutions, predominantly public and semi-government ones, have an annual enrolment capacity of more than 1,000 students. Thirteen per cent claim to have an enrolment capacity of between 500 - 1,000. Around 38 per cent have an enrolment capacity of between 100-500 students and 21 per cent have fewer than 100 students.
- 49 of 126 institutions (39 per cent) report that men make up 76 per cent of the total enrolment in Certificate, Diploma and Bachelor's programmes each. In comparison only 17 per cent report having similar percentages (greater than 75 per cent) of women enrolled in Certificate courses. This number drops to only six to seven per cent with respect to women's having more than 75 per cent enrolment in Diploma and Bachelor's degree programmes.
- Fifty six per cent of institutions report having a library
- 37 per cent of institutions have more than 10 classrooms and 28 per cent have 6-10 classrooms at a campus.
- 60 per cent of institutions have electricity and about 40 per cent (51 of 126) have their own generators.

There is no bench-mark against which to judge the adequacy of these facilities. The respondents however find them adequate for their purposes and several are contemplating more investments in physical capacity and facilities, which might point to increasing demand for TEVT services. This assertion, however, requires further investigation to determine more precisely the magnitude of change in demand.

Section 2:

Assessment of Institutional Systems for Employment of TEVT Students:

This section concerns the substantive questions related to positive employment outcomes. The survey focused on the factors listed below, which potentially impact the employment outcomes of students from the TEVT system. The following are the focal areas of assessment.

1. Formal linkages with, and involvement of, employers and enterprises in training design, implementation, and assessment
2. Selection and monitoring of trainees for the courses
3. Selection of courses in line with market demand
4. Training follow-up mechanisms
5. Career counselling and vocational guidance
6. Job placement services
7. 
8. Research in TEVT institutions.

Each of these factors was assessed separately in the questionnaire. Significant findings are presented under each assessment area. Where appropriate, the sections contain “mini case studies” to explain current practices for employment promotion.

Focal Area 1: Formal Linkages with Local Employers for Inputs in Training

Rationale

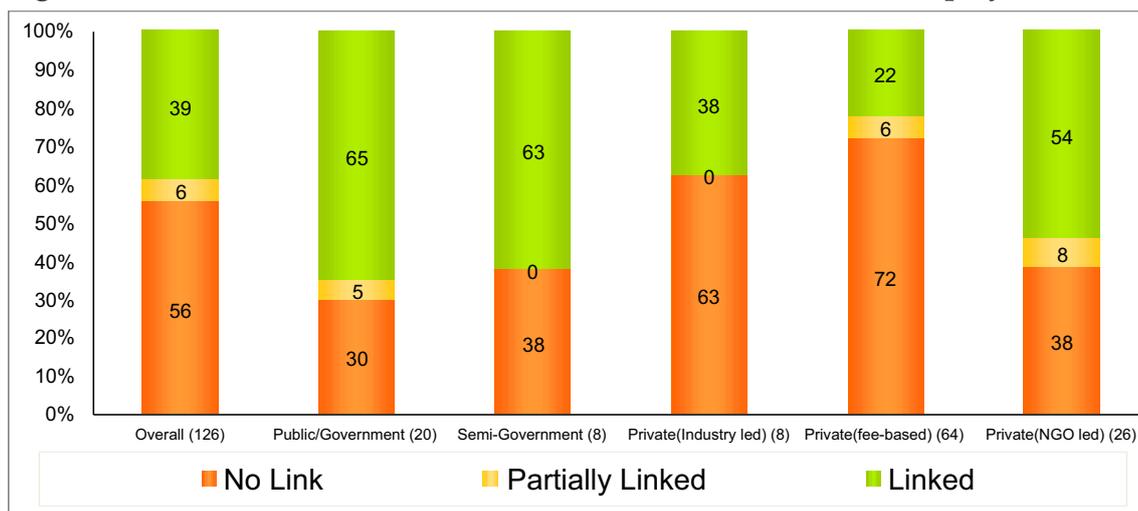
Formal linkages with local employers for the purpose of improving existing training courses and introducing new demand-driven courses is pivotal for the success of TEVT institutions. This practice enhances the capacities of the institutions and helps them to keep pace with the changing employment-market scenarios. Global experience^{7,8,9} has established that the more employers have a say in course design and setting academic calendars, the greater the likelihood that TEVT graduates taking these courses will find employment. The assessment focused on several aspects of these linkages.

This focal area examined organizational practices that allow industry to help the TEVT institutions to (i) understand the latest developments with respect to particular trades for which employers need skilled people and (ii) formulate oversight committees staffed with local experts for each trade on the curriculum. Specifically, the study analyzed the organizational practices of TEVTs that allow industries to:

- be represented on decision-making forums;
- involved in identifying and recruiting staff with the requisite qualifications;
- involved in determining course contents and influence the academic calendar;
- monitor the quality of training provided; and
- offer on-the-job training, apprenticeships and internships to students.

Findings

Figure 18: Institution with Formal and Across-the-Board Links with Employers



An overall 56 per cent of all institutions have no formal linkage with employers and local enterprises. Seventy two per cent of the private, fee-based institutions have no linkages and only six per cent have

partial linkages, such as occasionally seeking employers input on curriculum and having them on the governing body.

Linkages with employers are considered to be institutionalized if the employers have representation and a voice in decision-making. Meaningful participation overall is weak, as only 39 per cent (49 out of 126 institutions) reported having formal employers' representation on their governing or advisory bodies. Within these institutions, the weakest industry representation prevails in private, fee-based institutions at 14 per cent and is obviously highest among those that are industry-led.

Within this sample of 49 out of 126 (39%), the industry's most active role is in influencing course-selection decisions. 19 per cent institutions allow industry to decide on the selection of courses. Industry's role in recruitment of staff is even more limited: 14 per cent of overall institutions allow industry to decide on hiring of staff.

An identical 19 per cent of institutions allow industry to participate in curriculum development. The role of industry in course selection and curriculum development is not as substantive as influencing the hiring and firing of instructors.

Figure 19: Institutions Allowing Employers to Decide on Course Selection

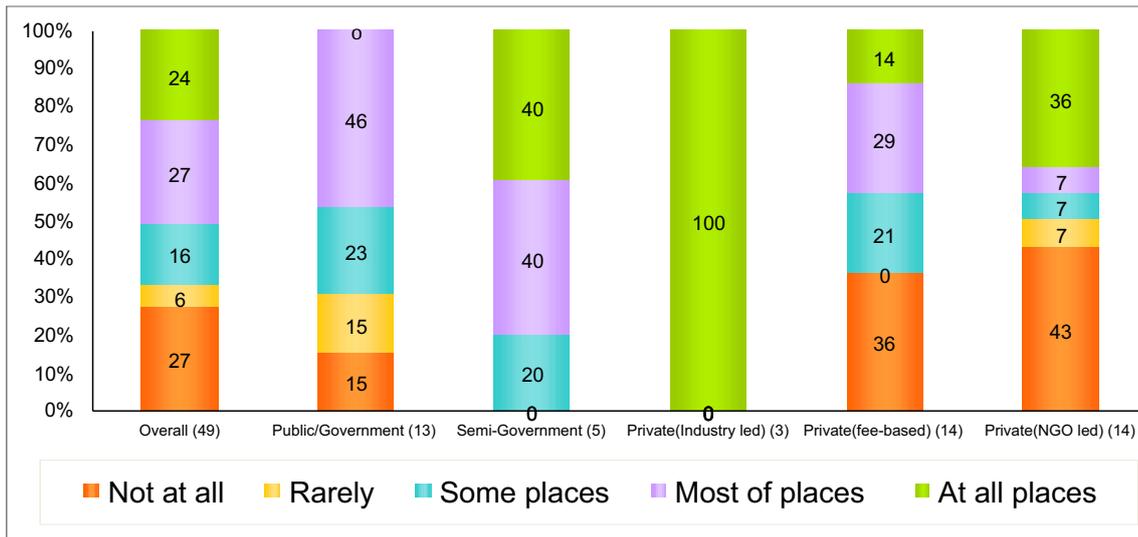


Figure 20: TEVTs where Industry decides on Recruitment of Instructors/Staff

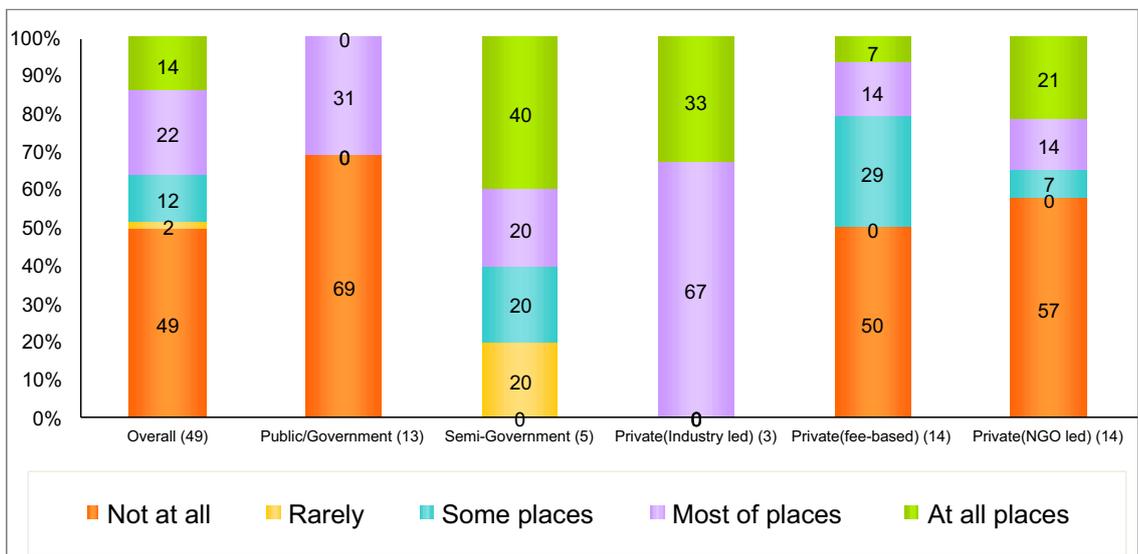
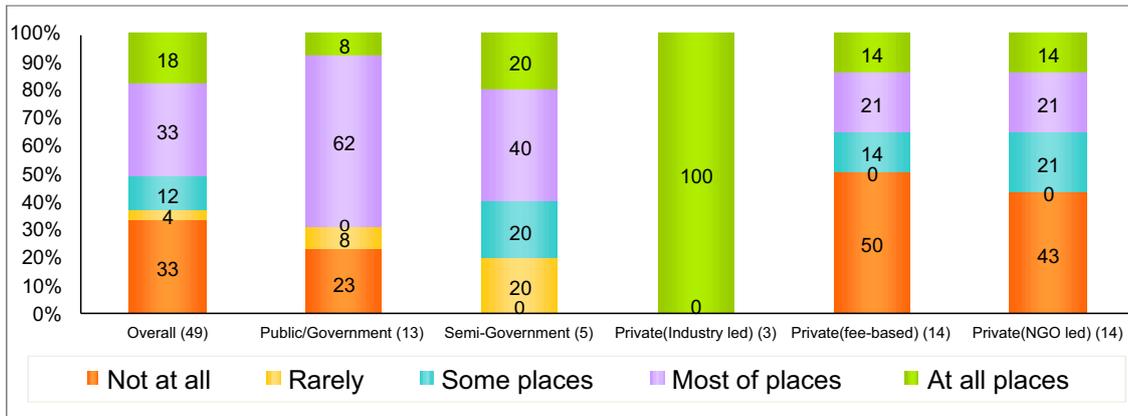
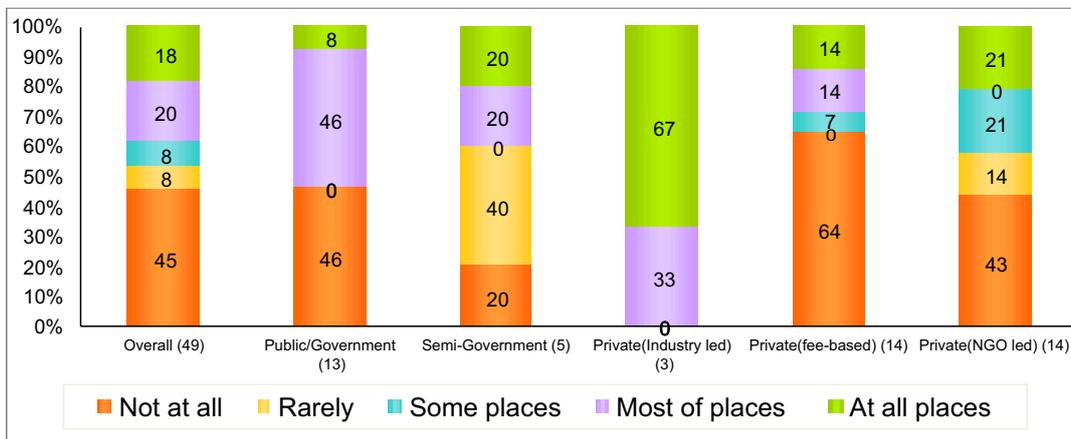


Figure 21: Industry Participation in Curriculum Development and Revision



Alignment of curriculum with industry could be beneficial for all institutions and stakeholders. However, the study found that linkages between institutions and industry are very limited and only in the private (industry-led) institutions is industry fully responsible for developing and updating the curriculum. 62 per cent of public/government sector institutions and 40 per cent of semi-government institutions have some level of linkage with industry. Industry has a role in monitoring the training courses in 18 per cent of the institutions while 33 per cent of the institutions indicated that they do not have any such linkages.

Figure 22: Institutions where Industry Advises on Purchase of Equipment for the Institution



A key determinant of quality TEVT education is the equipment used in technical and vocational training which has a significant bearing on the employability of students. When trained on the most modern equipment, TEVT graduates would be highly welcomed by industry. Like hiring of instructors, procurement of training equipment suggests the need for a greater role to be played by the industry. The survey findings in this respect are similar to those related to industry's involvement in staff hiring: 38 per cent of 49 institutions (15 per cent overall) have the involvement of industries to advise them on the purchasing most relevant training equipment.

A similar trend emerged with respect to industry's provision of apprenticeships: 40 per cent of 49 (16 per cent of 126 TEVT institutions) receive support from industry in providing work experience such as apprenticeships and own staff training opportunities.

Table 3: Case Study 1 - Involving Employers Improves Employment Outcomes

Case Study 1: Involving Employers Improves Employment Outcomes (By: Tahir Iqbal)

Mr. Mansoor Ahmed works as the Director of Academics at a government TEVT institution and firmly believes in establishing strong linkages with local employers and industries. He believes that an institution must coordinate actively with local industries and other relevant stakeholders. Sharing his experience of collaborating with the local Chamber of Commerce and a local motorcycle manufacturer in Karachi to conduct a course on motorcycle maintenance, Mr. Mansoor stated that the experiment proved to be of immense value for the staff at the institution and the students. Trainers from the motorcycle manufacturer provided hands-on knowledge, which is generally not imparted to students during the courses offered by the TEVT institution. The encouraging results of the collaborative effort were appreciated by the Head of the TEVT institution, and by members of the local Chamber of Commerce and the motorcycle manufacturer.

In their feedback on the course the students unanimously praised the efforts of their institution and thanked the trainers from the motorcycle manufacturer. Some of them said they felt as if they were working in the industry. A number of students decided to switch to the motorcycle repair course because of the manner in which the training had been conducted. The students remarked that the hands-on experience and the chance to learn directly-relevant skills from the industry trainers gave them a sense of importance, which was different from that of the everyday classroom lectures and laboratory work. One student called the training “marvelous”. Mr. Mansoor suggests that other organisations should also involve the local industries, relevant associations and other key stakeholders to provide better educational experiences for their students. He believes that the collaboration worked in favour of all the collaborating organisations.

*Names of the individual and institution are not mentioned, at the request of the respondent.

Focal Area 2: Selection & Monitoring of Trainees for the TEVT Courses

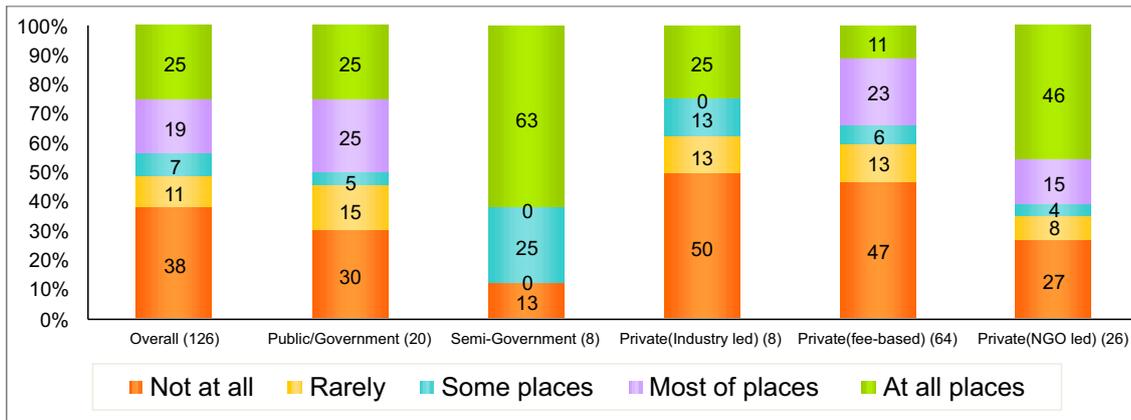
A student's aspiration can be defined as the “ability to identify and set goals for the future, while being inspired in the present to work toward those goals”. This way of viewing student aspirations is unique in that it combines the motivational components of the present (inspiration) with the future (ambitions). Individuals' perceptions may reflect only one of the dimensions, however (Quaglia and Cobb, 1996). It is, therefore, very important that the trade selected by vocational students are in line with the ambition, inspiration and socio-cultural conditions of the students. Monitoring and evaluation of student selection, learning pattern and assessment at every level is necessary for any institution in order to improve its effectiveness: this begins with the selection of the students and continues to their graduation and eventual employment. This assessment focal area considers (i) the organizational practices related to monitoring students' selection; (ii) their performance during training and their post-training evaluation. It also analyses whether and how well a TEVT institution assesses the potential trainees' technical aptitudes for the courses offered and his or her socio-economic backgrounds (which help address issues of continuing affordability and realistic career aspirations by the applicants and their families) and whether the TEVT conducts aptitude tests, gives the students useful and regular feedback during the course of studies; whether it addresses their concerns, allows them to evaluate courses and teachers and uses their feedback to improve its systems. All of these factors contribute to how good the final product from the institution is going to be: that is, how prepared the graduates are to enter the workforce and be productive employees.

Findings

Pre-Training Selection Practices

- Only 51 per cent of the TEVT institutions conduct any kind of course-related aptitude tests;
- Only 31 per cent of the respondent institutions have any formal mechanisms by which to assess the technical appropriateness of trainees at the time of admissions: 25 per cent have no such mechanism.
- Only 20 per cent of the institutions have a selection system which evaluates the socio-economic background of the students while 37 per cent do not have a system. The private-NGO led institutions lead in this area with 46 per cent of them having a formal system for this purpose.
- 29 per cent of institutions have systems in place to identify and verify the economic conditions of their students. 60 per cent of the public/government-led institutions have no system in place for this purpose while 46 per cent of the NGO-led institutions do have a system for this purpose.

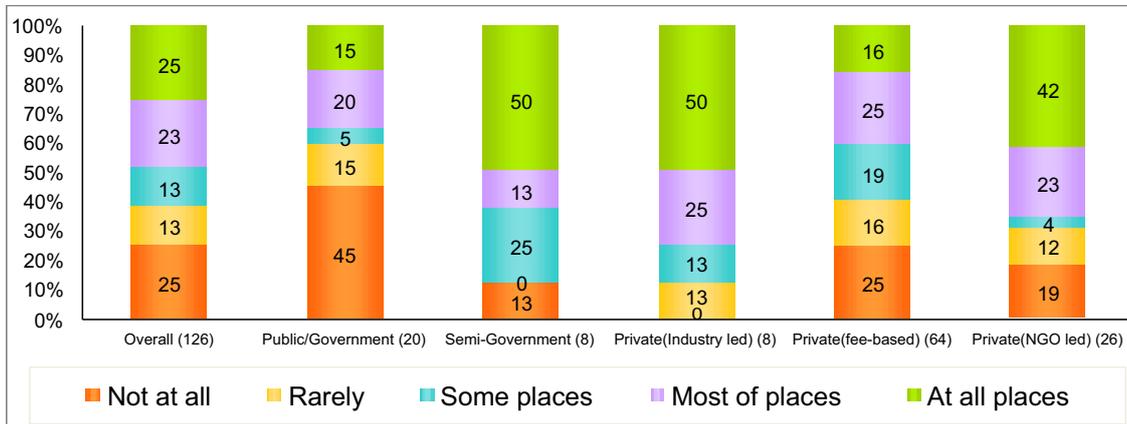
Figure 23: Pre-selection Aptitude Tests for Trainees



Overall, 49 percent of respondent institutions do not or rarely conduct any pre-selection tests. Aptitude tests are most common in semi-government institutions (63 per cent) followed by NGO-led (46 per cent) and by government and industry-led institutions (25 per cent each).

The practice of aptitude tests is closely linked with determining the suitability of a course with the candidates' vocational aspirations (Figure 24).

Figure 24 : Mechanism for Finding Suitability of a Course with Candidates' Vocational Aspiration

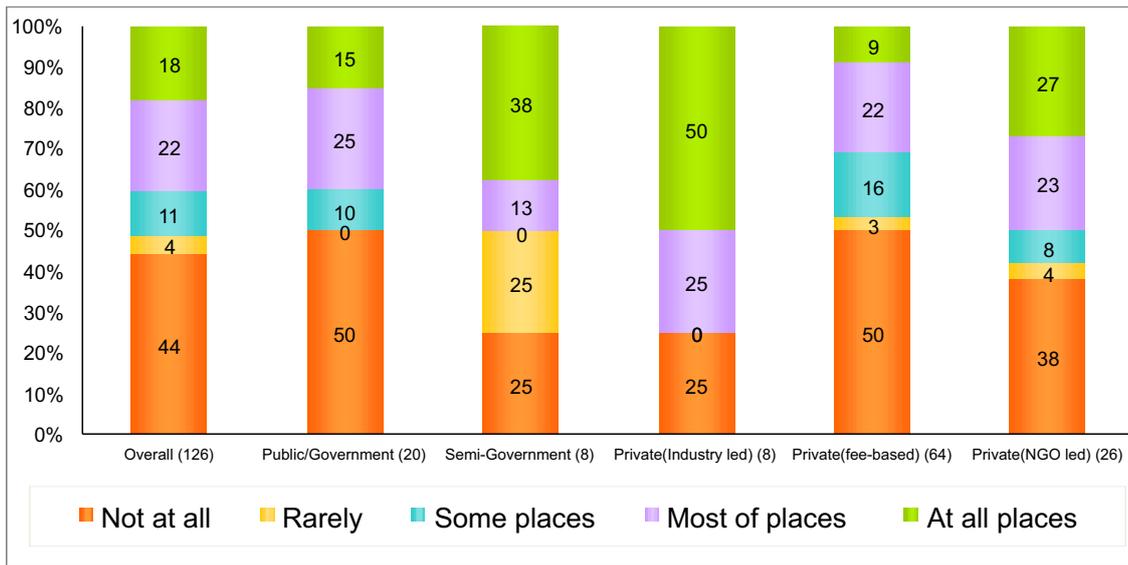


The practice of matching courses with candidates' vocational aspirations is most securely established in industry-led and semi-government institutions (88 per cent), followed by NGO-led (69 per cent), private, fee-based (59 per cent) and government (40 per cent). In other words 60 per cent of public and 41 per cent of private, fee-based institutions do not have a system of matching course suitability with vocational aspirations.¹⁰

The survey also examined aspects of accessibility at TEVT institutions for physically-challenged students. Convenient physical access for special-needs trainees is missing across the TEVT institutions: close to 45-50 per cent of all training providers have no system to make physical access convenient for special-needs trainees (Figure 25).

¹⁰ The percentages mentioned here are sums of "at all places", "most of the places" and "some places" (Or 100 percent minus "not at all" and "rarely")

Figure 25: Accessibility for Special-Needs Trainees

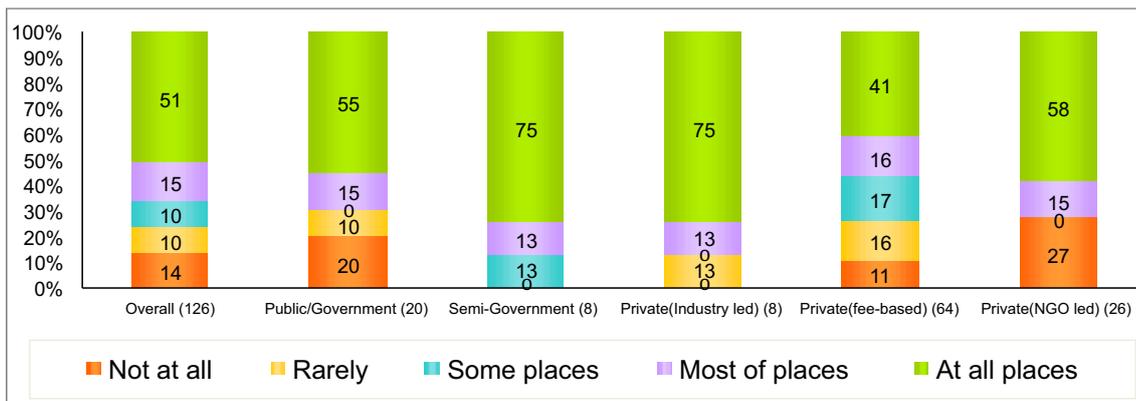


Private, industry-led institutions seem to be more sensitive about the needs of special trainees as 25 per cent of them do not have a convenient physical access compared with 50 per cent of public and private institutional and 38 per cent of NGO-led institutions that lack convenient accessibility.

Progress Monitoring Practices during Training

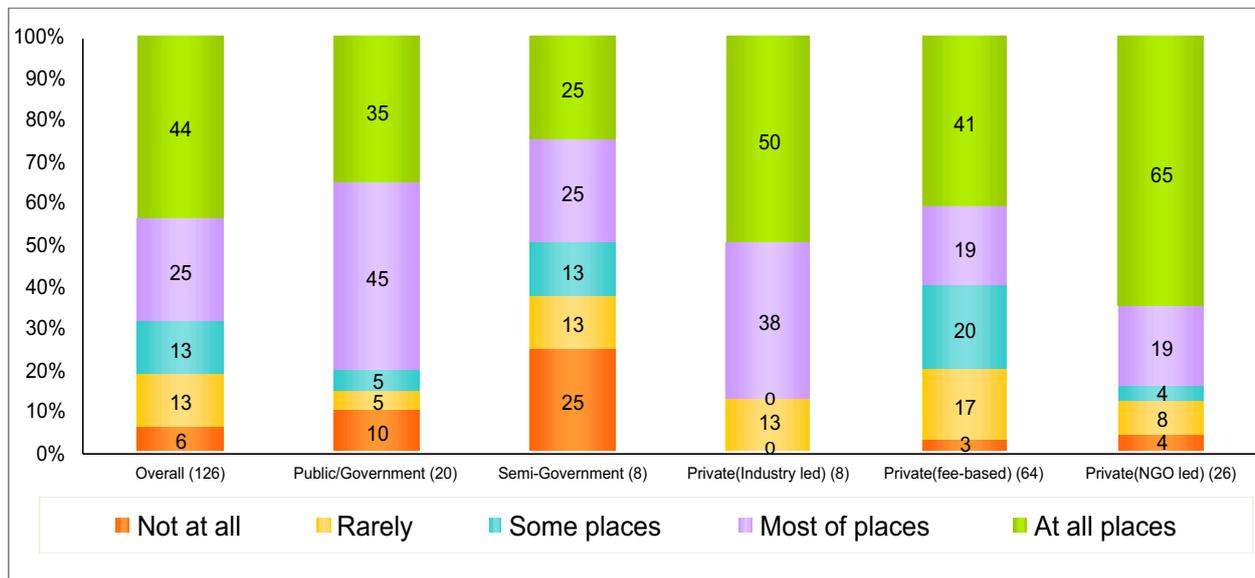
During training good practices are well established across all institutions. At more than 70 per cent of all TEVT institutions there is a system of students receiving formal evaluation and feedback through assessments. This practice is weakest in NGO-led and public institutions; 27 per cent of the former and 30 per cent of the latter lack a system of formal progress evaluation and feedback. This finding is particularly significant for the public institutions: since they have multiple constituent colleges, this 30 per cent deficiency may mean a much deeper and wider weakness in their system (Figure 26).

Figure 26: Formal Feedback to Students on Their Progress through Assessments



Similarly more than 65 per cent of TEVT institutions (Figure 27) report having a formal system that allows trainees to express their problems and have them resolved. This finding sums the responses for “all places” and “most of the places”. In response to the supplementary question on this, it was found that only 41 per cent of all respondents have a formal mechanism through which they measure whether trainees maintain their interests in the course. This finding is in line with the next supplementary question on having a system to allow trainees express their problems with the course; only 45 per cent of institutions report having such a system. Problem-recording should lead to problem resolution if it is to have any beneficial effect; otherwise there is no point in having a complaint registration mechanism. Overall, 69 per cent of all the institutions have such a system in place. When responses to “most” and “all” places are combined, it is found that 75 per cent of the private (industry led) institutions have a formal problem-identification system in place. This is followed by semi-government (63 per cent) and 54 per cent of private-NGO led organizations, respectively.

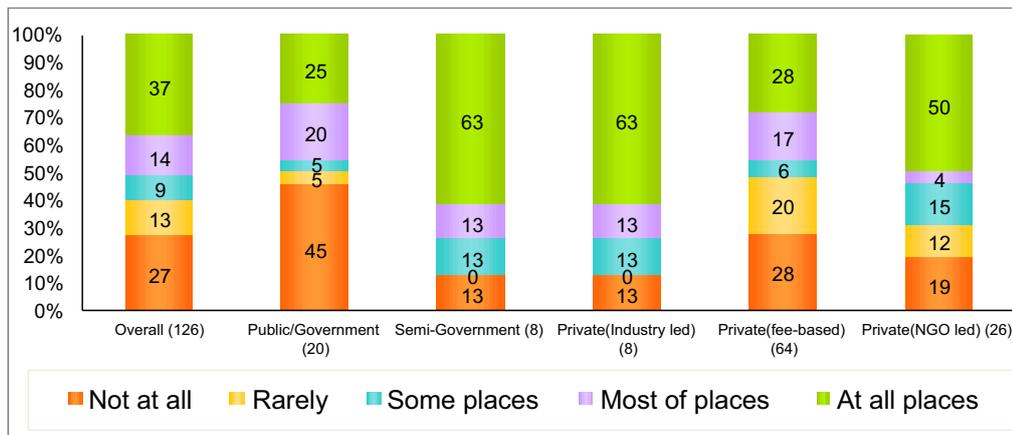
Figure 27: Presence of a Formal Mechanism to Help Resolve Trainees' Learning Difficulties



Post-Training Monitoring and Evaluation Practices

Post-training evaluation provides important feedback to institutions and helps them improve quality of instructors, curriculum, training equipment and various other services.

Figure 28: Students Formally Evaluate Instructors and Institution at the End of the Course



Overall (51 per cent of the institutions have a formal mechanism through which students can evaluate the course and their institutions at the end of the course. The practice is more rigorous (76 per cent each) in private-industry-led and semi-government institutions and is fairly well-established at around 45-50 per cent in NGO-led, for profit and public institutions.

Two supplementary questions related with the practice of conducting exit interviews and tracking graduation (pass-out) rates. A formal system for conducting students' 'exit interviews' at the end of the programme does not exist in 44 per cent of respondent institutions. Government/public institutions have the least regard for this matter: only 50 per cent have any evaluation system in place. However, a system for checking the formal output of each course (i.e. the pass-out-rate) exists in 74 per cent of the respondent institutions.

Table 4: Case Study 2 - Rigorous Selection and Monitoring of Students Helps Get Good Jobs

**Case Study 2: Rigorous Selection and Monitoring of Students Helps Get Good Jobs
(By: Tahir Iqbal)**

Zahid Mirani* lives in the Rehri Goth area of Karachi. He and his family members live on meager resources. As the youngest member of the family Zahid had the opportunity to study up to Intermediate level (12th grade) and secured good grades in his final examinations. He found a job as a social organizer in a local NGO and worked for that NGO for three years primarily organizing social action committees. He then got the idea of doing a course in Project Management. He was advised to take admission in an NGO-managed vocational educational institution. Zahid was accepted and completed a six-month course in Project Management. He was also fortunate to receive a 50 per cent fee-waiver from the institution on achieving first position in the final assessment.

Zahid states that he had a wonderful experience at the institute. He particularly liked the fact that his job and employment history were thoroughly assessed during his admission interview, as were his career needs. He acknowledged that he was surprised on the very first day: he had to take an exam even before the training started. He says, "I was told that this was a baseline assessment of my current level of knowledge and skills in project management and that my progress would be measured against this baseline ... this was totally new experience for me but I really liked the idea very much".

He also recalls that there were regular quizzes and monthly exams. "Every month the management held an open session with the students and listened to their complaints, suggestions and feedback." Counselling is provided after the initial selection of the candidate for the purpose of identifying the best courses and constant progress managing helps students perform well.

The head of the Institute, Naeem Jatoi, says that the management is very serious about the quality of the training programmes. The students' evaluations of their instructors go into the instructors' performance appraisals and the free flow of feedback on their administrative services helps the organisation improve. Naeem says, "We have implemented ISO 9000 accreditation for our quality management system. This system requires us to act upon customers' complaints and suggestions. It also allows us to monitor the key processes of before, during and post training follow ups".

Zahid is very grateful to the Institute and considers that it should be taken as a role model for other institutes in the country. Currently Zahid Mirani works at an international company, as a Senior Social Mobilization Officer.

*Permission to use real name was granted by the respondent.

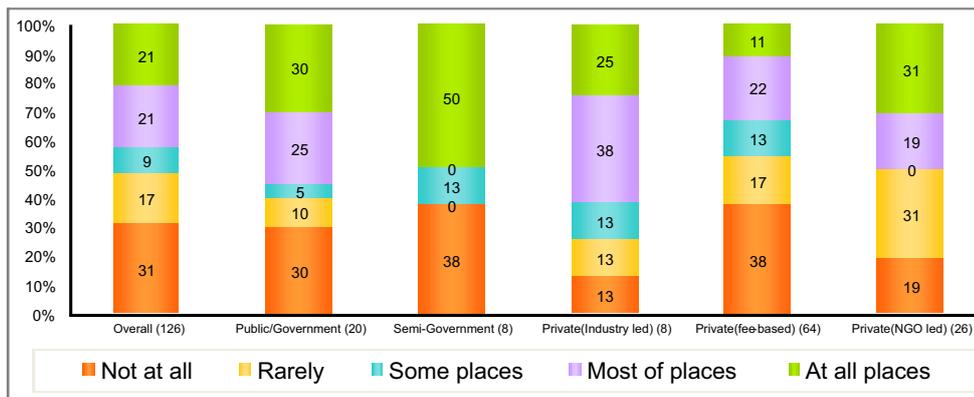
Focal Area 3: Selection of Courses Offered

The TEVT institutions' course offering should match industry's requirements in terms of a) technical competency and b) timely availability of graduates. Synchronizing course content and timing in the academic calendar with market demand means that a TEVT institution is producing employable graduates in line with employers' hiring cycles.

Findings

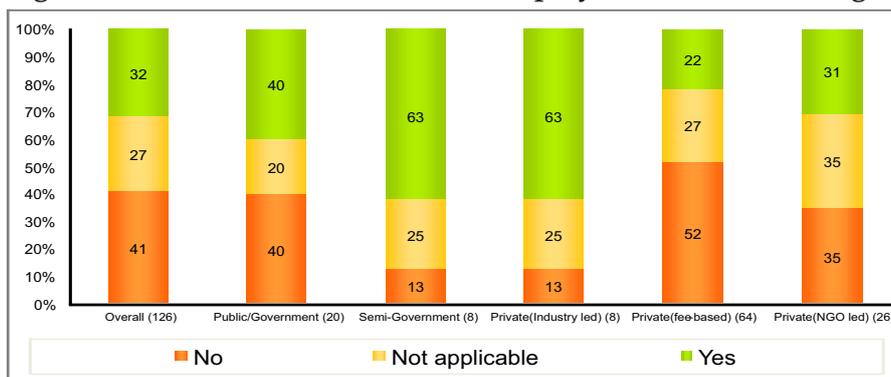
Varied results were obtained regarding formal systems of aligning academic calendars with employers' needs. Understandably, industry-led institutions lead the trend as only 26 per cent (the two lowest percentages) of these TEVT institutions do not practice this. Forty per cent of publicly-funded TEVT institutions, 55 per cent of fee-based private institutions and 50 per cent of NGO-led TEVT institutions do not practice this.

Figure 29: Formal Systems for Aligning Course Offering with Market Demand



This finding is corroborated (Figure 30, below) by the finding that only 32 per cent of all institutions report formally consult employers before finalizing their programme schedules.

Figure 30: Formal Consultation with Employers before Finalizing Programme Schedules



If and when the student's employment outcomes are considered, this helps the TEVT institutions to align their curricula with industry needs. This practice, however, requires that TEVT institutions have in place a system for tracking their students and staying in touch with them long after they have graduated. It was found that only 36 per cent of the institutions have a system for updating the curriculum based on students' employment outcomes.

Focal Area 4: Training Follow-up Mechanisms

Rationale:

Training follow-up with graduates and employers and, systematically building relations with alumni very positively impact the employment of TEVT graduates. The follow-up not only builds relationships; it allows TEVT institutions to be aware of industry dynamics, including technological changes, expansion plans and current and upcoming job opportunities.

Findings

Across all types of TEVT institutions there is a formal electronic data base of graduate trainees: 70 per cent of public, 75 per cent of semi-government and industry-lead and 77 per cent of NGO-lead institutions maintain these records. The lowest incidence is in fee-based private institutions, of which 47 per cent have this type of data base.

Figure 31: There is a Formal Comprehensive Electronic Database of Graduates

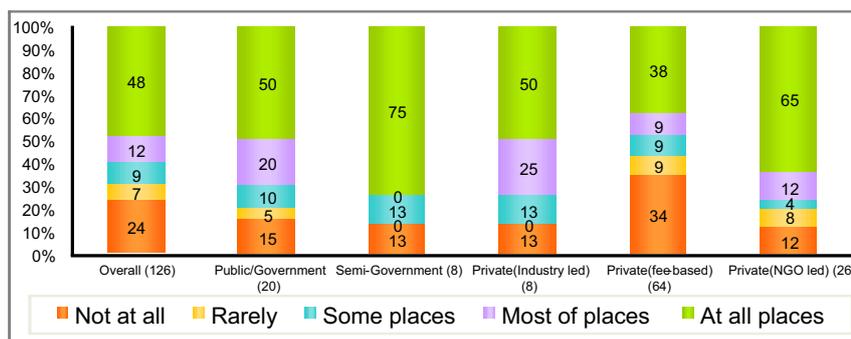
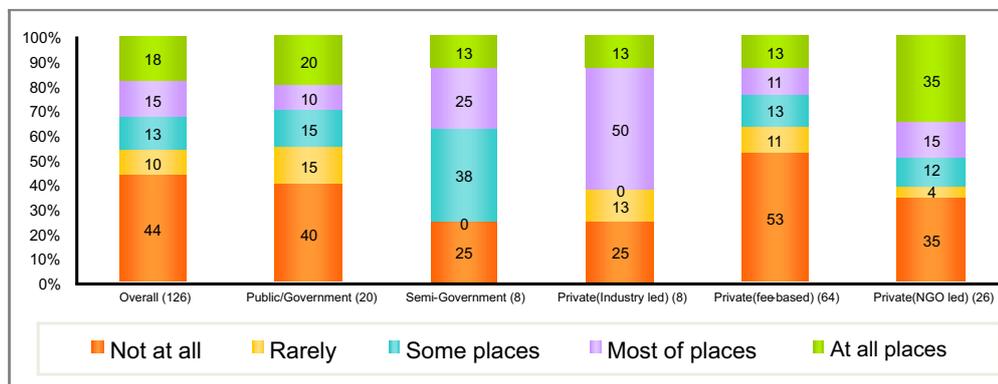


Figure 31, above, indicates the number of institutions having a formal, comprehensive, electronic database of their graduates. Only 48 per cent of the institutions maintain a database in place. Only 42 per cent of institutions record multiple contact details of students for future follow-up on a regular basis. In 63 per cent of the semi-government institutions there is a formal follow-up mechanism in place: 39 per cent of private - fee based institutions do not have a follow-up mechanism.

Figure 32: Formal System to Periodically Check Employment of Every Graduate



However utilizing this data base is a different issue. Overall only 33 per cent of institutions use the data base to periodically check the employment status of every graduate (i.e. through tracer studies). During the follow-up sessions with the students 48 per cent of the institutions do not assess the degree to which the course prepared the students for future employment.

Similarly, there is a lack of importance given to formally seeking inputs from the students on the appropriateness of equipment which they used during their course. Fifty two per cent of the institutions have no system in place for this purpose. Thirty nine per cent of all institutions compile formal reports on this subject and only 32 per cent of them use the employment-status report for policy decisions about future course corrections.

Figure 33: Institutions Using 'Employment Status Report' into Policy Making

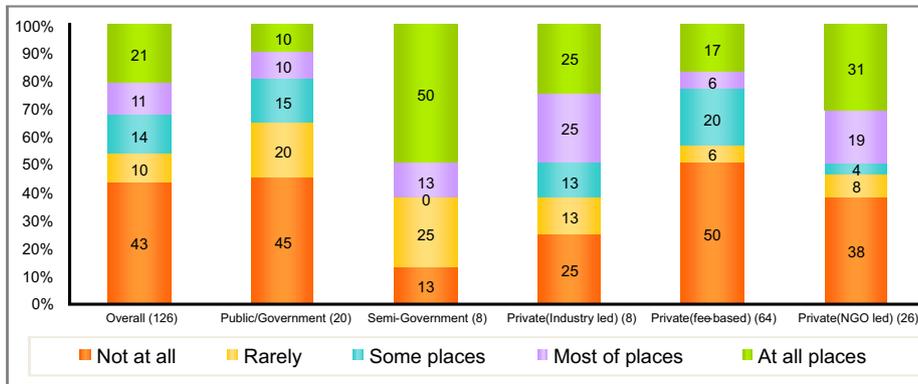
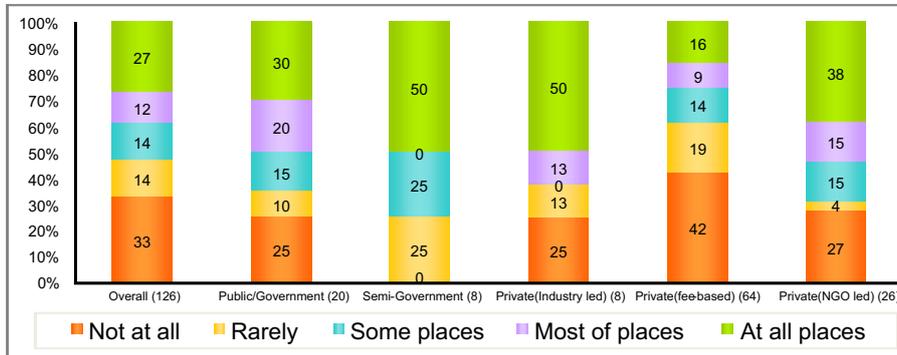
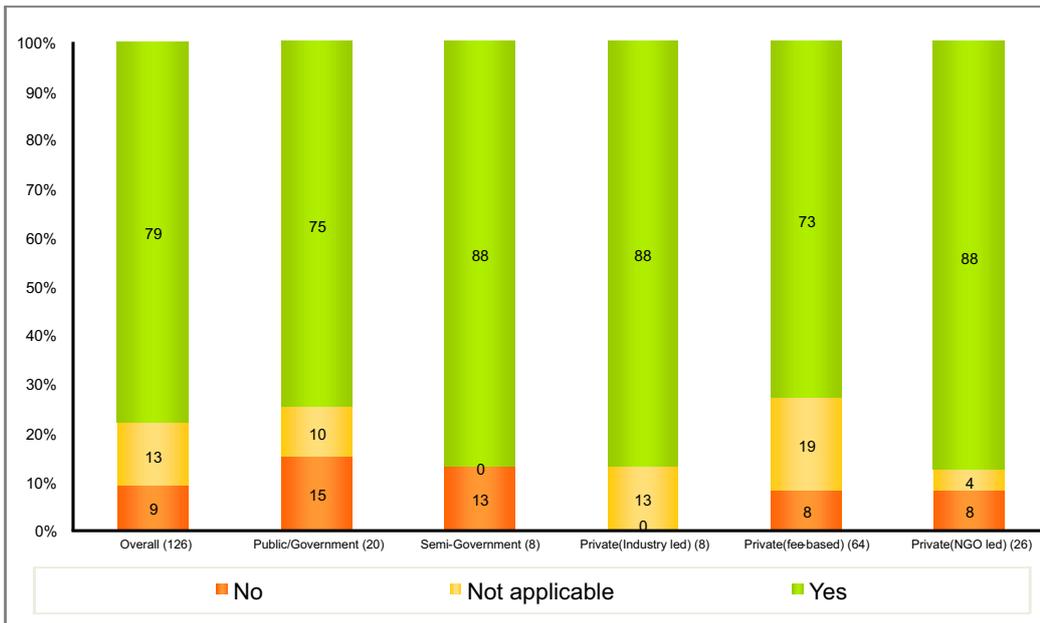


Figure 34: Mechanism for Formally Checking Employability Potential of Each Training Course



Forty seven per cent of the institutions do not formally check the employability potential of each training course offered.

Figure 35: Formal Recognition by Employers of Qualifications Earned at the Institution



The survey found that at 79 per cent of all responding institutions, the qualifications earned at these TEVT institutions are formally recognized by the industry.

Focal Area 5: Career Counselling

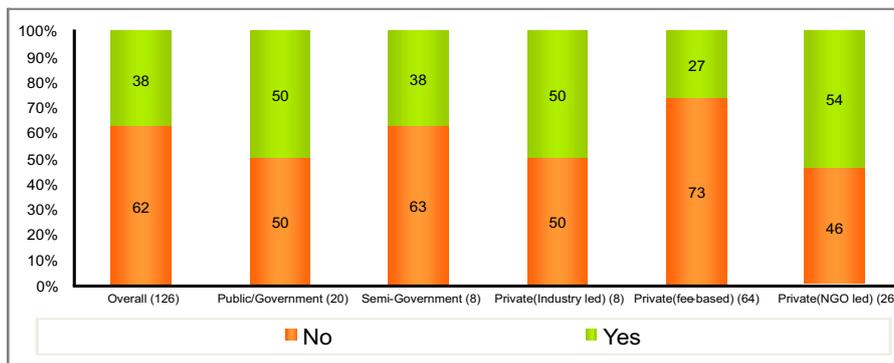
Rationale:

Career counselling and vocational guidance (CC/VG) is another highly crucial factor in enhancing student's employability. CC/VG services consist of the provision of advice and information about the specific details of individual careers, career requirements, ways of funding vocational education and training and important trends in the world of work. CC/VG also provides up-to-date information on the situation and development of labour markets at home and abroad, as well as advice on finding employment relevant to the training received. The CC/VG services are primarily available in universities in Pakistan but unfortunately they have a very negligible presence in the TEVT sector where they are perhaps needed the most.

Findings

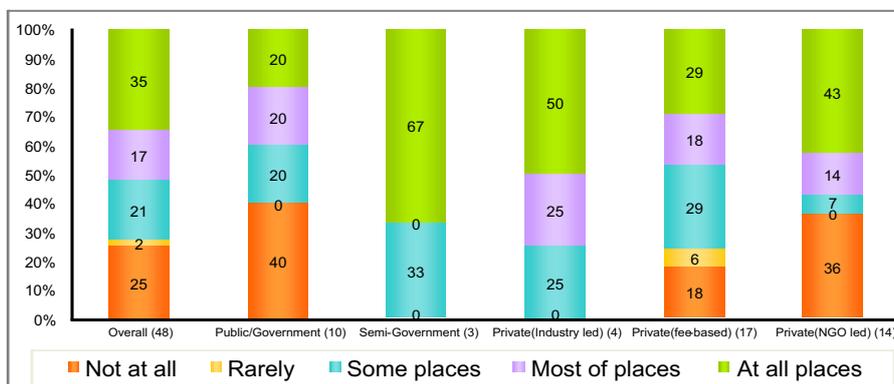
Institutional arrangements for CC/VG services are absent in 62 per cent of all institutions (Figure 36), with varying degree of prevalence across the types: 50 per cent of government and industry-led, 54 per cent of NGO-led institutions offer CC/VG whereas only 27 per cent of fee-based private institutions make CC/VG available to their students.

Figure 36: Institutional Arrangement for Career Counselling and Vocational Guidance



62 per cent of all respondent institutions have no institutional arrangement for career counselling and vocational guidance for students. Fifty per cent of the Government and industry-led TEVTs do provide CC/VG. Only 48 out of 126 (38 per cent) institutions have a professional career counsellor available. Institutions with professional counsellors also tend to offer soft skills trainings to their students.

Figure 37: System to Conduct Psychometric Analysis of Trainees and Soft Skill Training



Sixty seven per cent of the semi-government institutions which have a dedicated counsellor available with them also use modern techniques such as conduct psycho-metric assessment of trainees (Figure 37). Overall, only 35 per cent of the institutions conduct psycho-metric assessment. In varying degrees 56 per cent of the institutions stated they have a system to inform trainees about emerging trends in various job sectors.

Institutions with professional career counsellors also report having a system to guide students about different employment options including self-employment and over-seas employment. The practice is more pronounced in semi-government, private and NGO-led institutions (64-75 per cent) and less in public and private institutions (40-45 per cent).

Table 5: Cases Study 3 - Career Counselling, Vocational Aspiration and Employment

Cases Study 3: Career Counselling, Vocational Aspiration and Employment (By: Tahir Iqbal)

Ms. Uzama Shah* is a Director at an NGO-led institution in Karachi. She thinks that each institution should have a Department of Career Counselling. She says that her institution has a professional career counselor who provides guidance to students about their career choices. The need to have a full-time dedicated staff to provide the students with guidance became apparent when it was observed that the students were not performing as well as had been expected. This was attributed to their not receiving adequate vocational guidance after being admitted. This problem was pointed by the instructors and by some of the students. There are many examples of this kind of problem. Ms. Uzama Shah narrates the experience of two girls who chose the stenography course but lost interest in the first month, She identified the absence of proper guidance as the reason for the girls' selection of an inappropriate course. They later left the institute.

The organization took on-board the services of a trained career counselor, which proved to be a wise decision. Ms. Uzama Shah gave another example: two young women got admission in one of their institutes and wanted to enroll in the embroidery course. The career counsellor interviewed and recommended that should take a sewing course rather than embroidery. Accepting the advice, they took the course and finished it successfully. Similarly, she said that a group of students (all living in same vicinity) insisted on being admitted to the civil engineering program. During the counselling session it became clear that some of the students were opting for the course because their friends were taking it. During a lengthy interview the counselor assessed each student's capabilities and then advised them to take other courses. The students agreed that the other options were a better match between their aptitudes and career choices.

Ms. Uzama Shah's organization now has two full-time expert career counselors, one for technical and one for vocational education and training.

* The name of the respondent and her institution are not used, at their request.

Focal Area 6: Job Placement Services

Rationale:

A job placement office offers two main types of services. One is directed at the TEVT graduate who is a job seeker and the other to an employer looking to hire new workers. Acting as a bridge, a job placement office connects supply with demand; it helps potential employees to find a suitable place of employment, where the candidate's skills and experience would benefit the industry. The overall goal of the job placement office is to provide both the employer and the TEVT job seeker with the best fit possible, based on personality, experience and skills. Job placement is also an indicator of employment success that shows whether or not a course or a training programme has prepared students adequately to address employers' needs for qualified technical workers. Job placement services are therefore central in ensuring positive employment outcomes for any type of graduates and more so for TEVT students because they need more assistance and help in getting through the hiring process: how to conduct job search, how to write CV, and how to prepare for an interview. .

Findings

Only 33 per cent of respondent institutions have any formal institutional arrangements for the placement of successful trainees (Figure 38). This crucial factor is weak across the spectrum: it does not exist in 60 per cent of public, 63 per cent of semi-government, 80 per cent of fee-based institutions and 50 per cent of NGO-led and industry-led institutions.

Figure 38: Institutional Arrangement for Job Placement of Successful Trainees

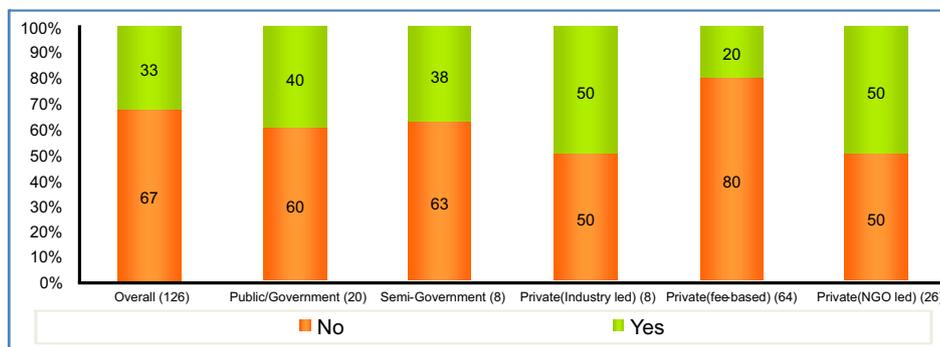
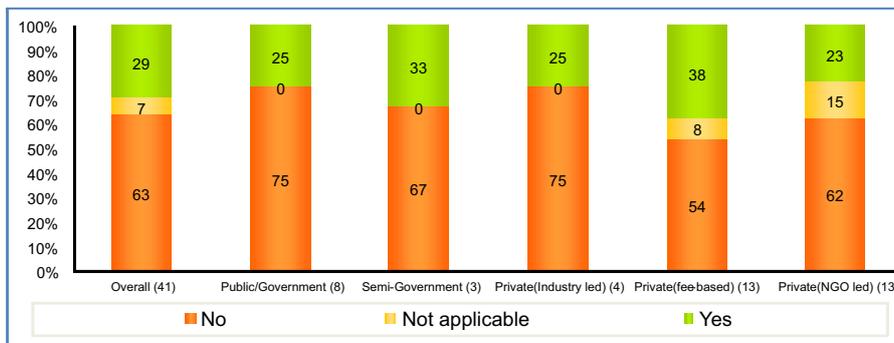


Figure 39: Formal Linkage with Overseas Employment Promoters



Within these 41 institutions close to 70 per cent do not have arrangements with overseas employment promoters for their graduates (Figure 39).

Table 6: Case Study 4 - Value of Job Placement Services

Case Study 4: Value of Job Placement Services (By: Tahir Iqbal)

Noman belongs to a lower income household and in order to support his extended family he started to work at a very early age, as his father and elder brothers had done. After passing his Intermediate exam in the science group, Noman stopped his education and shifted his focus in finding a better job. He found out about the Amantech (an NGO led Institute) from his neighbour's son and went to the Institute with him. Being a good student, he fulfilled all the entry requirements and was admitted to the Mechanical Metal Machinery certificate program. He was astonished to know that the institute offers training without fee. The environment and training at Amantech provided him an opportunity to unearth his hidden talents. He proved to be a brilliant student and received appreciation from his teachers. The well-developed systems at Amantech and a conducive educational environment honed his ability to learn more and more.

After passing the certificate course, Noman was admitted to the advanced level of the Mechanical Diploma programme. He passed the programme with high distinction. Later, he appeared in the City and Guilds (United Kingdom) examination and received a Medal of Excellence. Nowadays he works with the Arab Tech firm in Dubai and earns 1,600 dirhams (PKR 43200) per month. This employment opportunity was arranged by Amantech.

Amantech promises overseas employment to every one of its top graduates. “We do this as part of our business model and we believe that it is the duty of an (TEVT) institution to provide placement services to its students, who, on their own are less likely to succeed in finding jobs... University graduates are well prepared for job hunting and they have effective social networks to help them find suitable jobs. This is not the case with our graduates and hence we have made strong institutional arrangements in this regard using our international network, especially in the UAE ... where several of our graduates like Noman are following their dreams”, says the Placement Manager at Amantech. Noman feels he is indebted to Amantech. He feels he has achieved his goal and he believes that Amantech is playing a great role in society by providing overseas placements with their excellent technical education.

*Real names of the individual and the institute are used with their permission.

Focal Area 7: Entrepreneurship Education in TEVT Curricula

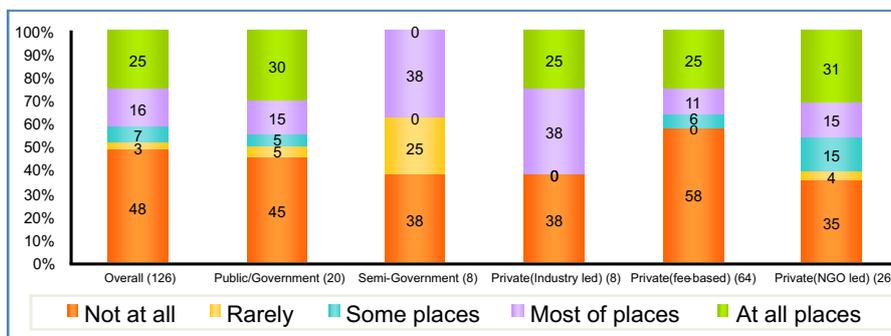
Rationale:

Entrepreneurship means self-employment and is a suitable way for TEVT students to earn a livelihood, especially those who cannot find gainful employment in industry. Students with innovative ideas for a business and women who prefer to work in their homes also need business-oriented skill-training. Armed with skills that can be sold as service business, TEVT students need to be prepared in the fundamental skills and attitudes of self-employment. It is the responsibility of the TEVT institutions to prepare their graduates to take on the multiple challenges they will encounter in earning a livelihood. Imparting basic entrepreneurial skills to the students during their course work should be complemented by other systemic elements of enterprise-promotion such as access to all aspects of finance, systematic mentoring and business incubation. Only then can successful TEVT entrepreneurs be created. There is evidence from Pakistan and around the world that this can be accomplished.

Findings

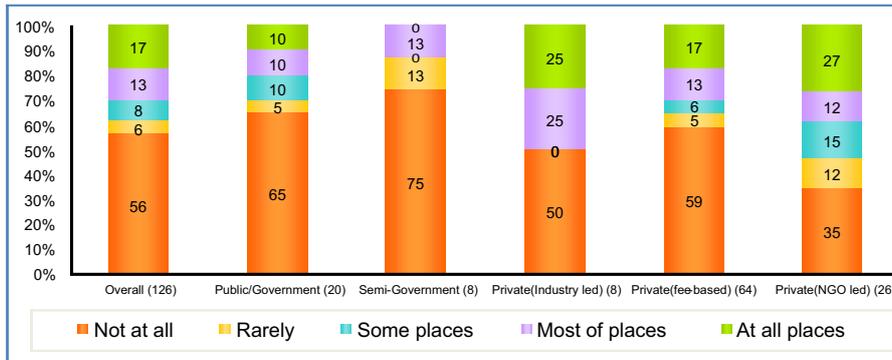
The assessment of entrepreneurship reveals sector-wide weaknesses: it is absent at nearly 50 per cent of all institutions. Ironically, the highest neglect of entrepreneurship is among the private, fee-based institutions (58 per cent). Industry-led TEVT organizations are found to be leading (all places and most places combined percentage of 63 per cent) in teaching the essentials of entrepreneurship followed by NGO-led and public at around 45 per cent each.

Figure 40: Entrepreneurship Education as Part of the Qualifications Offered



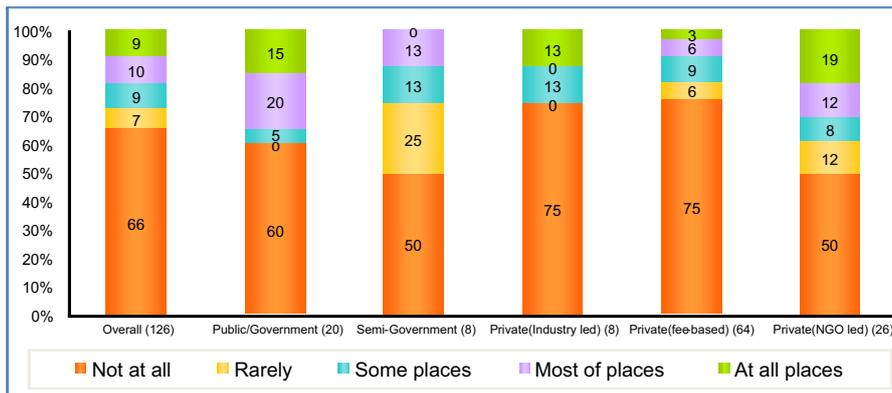
Although about 50 per cent of all institutions claim that they offer entrepreneurship as part of the qualifications offered, the ancillary services required (see Figure 41, below) to make entrepreneurship successful are either missing or inadequate.

Figure 41: Formal System Exists To Provide Business Incubation Service



Overall 62 per cent¹¹ of institutions have no formal system to provide business incubations services: 70 per cent of government, 88 per cent of semi-government, 60 per cent of fee-based and 50 per cent of both NGO-led and industry-led institutions do not have any working mechanism for business incubations services.

Figure 42: Formal System to Provide Business-Development Services to New Start-Ups



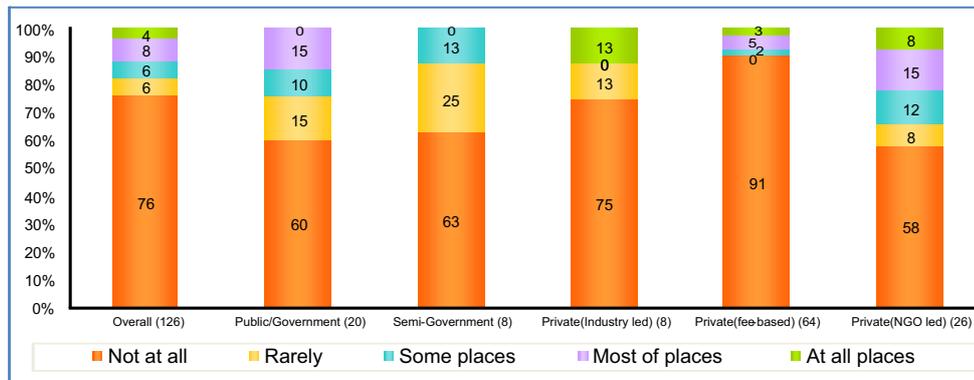
Similarly, overall in 73 per cent¹² of the institutions there is no formal system to provide new-business development services. Ideally, these services would consist of mentoring, access to finance, management skills, market advisory, financial planning, marketing and promotion support etc.

Mentoring services by local industrialists/employers to graduates who have newly-established enterprises are not available at 80 per cent of the institutions.

¹¹ combined percentage of “not at all” and “rarely”

¹² combined percentage of “not at all” and “rarely”

Figure 43: Institutional Linkage to Provide Small Loans for Starting New Businesses



On the supplementary questions the find is that linkages or systems to ensure access to finance (small loans) is totally inadequate: 82 per cent of institutions have no links or systems and 71 per cent of responding institutions do not conduct any competitions for encouraging new business ideas.

Table 7: Case Study 5 - Entrepreneurship Support System and Employment of a Skilled Person

Case Study 5: Entrepreneurship Support System and Employment of a Skilled Person (By: Tahir Iqbal)

Mrs. Dia was 35 years old and the mother of two girls when she decided to join the Association of Human Development's (AHD) Vocational training Centre. She lives with her in-laws and husband in a small rented house in Latifabad, Hyderabad. The entire family works hard to make ends meet. AHD provides technical and vocational training to deserving students and charges a nominal fee for the offered courses.

Mrs. Dia has tried to work outside her home but social barriers did not allow her to earn in this manner. The Association of Human Development (AHD) Sewing Center has given her an opportunity to learn sewing skills while remaining close to her children and home. She proved herself to be a keen learner and within two months she learned to sew a complete dress. At the end of the training course Mrs. D had perfected the art of sewing women's dresses. She can sew the latest styles of shalwar kameez as well as children's frocks. During the training she made new friends at the centre and she felt happy among them.

After the training Mrs. Mrs. Dia was attached to a local boutique with the help of AHD. The boutique was managed by a lady who took in Mrs. Dia as a trainee tailor. Mrs. Dia said that she honed her sewing skills at the boutique where the owner paid her and taught her to sew new styles. Mrs. D. spent six months in the boutique as a trainee and polished her technical skills while also learning valuable lessons in managing business operations from the boutique owner.

AHD later connected her with a local micro-finance institution and she was given a loan of PKR 30,000 (US \$ 272) on the guarantee of the boutique owner. Within three months Mrs. Dia had employed three other women from her locality and she was making dresses for the boutique and for her family, neighbours and even other tailors. In less than a year she paid back the loan and now happily manages her small dress-making business Mrs. Dia is now supporting her family and is sending her daughters to a nearby vocational school.

*Real names of the individual and the institute are used with their permission.

Focal Area 8: Research in TEVT Institutions

Rationale:

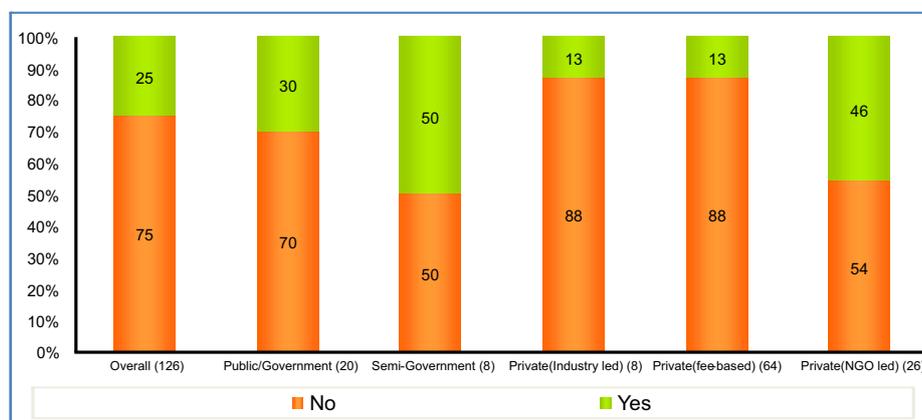
Research and development is the key to any organisation's success. Organisations which invest heavily in formalizing research are able to stay ahead in their respective areas of business. TEVT research has become a recognized and well-defined area of interdisciplinary research and therefore it has its own set of 'constructs', allied research methods and definitions.¹³ According to UNESCO, research on TEVTs "should shape the provision of (required) skills, e.g. via pilot projects, or via monitoring and international comparison"¹⁴. TEVT research not only informs public policy but also helps TEVT institutions to: align themselves with market needs; determine where their students are getting jobs; and identify emerging technical areas which require trained people and thus ultimately align their curriculum and teaching methodologies with emerging trends.

This area of the assessment therefore focused on finding out: the presence of research functions at TEVTs; the types of research conducted and the uses of the research outputs.

Findings:

The status of research in the TEVT institutions is rather negligible, as only 31 out of 126 institutions (25 per cent) have an in-house research cell.

Figure 44: TEVT Institutions with an In-House Research Cell



Of those 31 institutions which do have a research cell, 50 per cent are in semi-government and 46 per cent are in private-NGO-led institutions.

The summary of findings on types and uses of research in the 31 institutions is as follows:

- 71 per cent have research units that regularly conduct research
- 81% have an adequate number of -qualified personnel in their research units. This translates into 17 per cent and 20 per cent respectively on an overall base of 126 institutions. Those TEVT

¹³ UNESCO Handbook of TEVT Research, ISBN: 978-1-4020-8346-4

¹⁴ *ibid*

institutions which do have research cells report that their cells conduct the required functions: e.g. 61 per cent report that they conduct regular analyses of 'labour market trends'. (15 per cent overall).

- 74% of the research department periodically carry out 'sector assessments to identify skills needs' (18 per cent overall)
- 68 per cent conduct 'tracer studies' for each course (16 per cent overall)
- 77 per cent conduct 'employment opportunity assessments'. (19 per cent overall)
- 71 per cent of the research units conduct 'performance audits of each course' and 71 per cent of the institutions use their research unit for 'performance audits of every training centre' run by the institution. (17 per cent overall)
- At 68 per cent of the institutions 'research findings are periodically compiled and disseminated to relevant stakeholders'. (16 per cent overall)
- At 61 per cent of the institutions the 'research findings are shared with the management' of the institution and the management gives serious consideration to these findings; (15 per cent overall)
- 84 per cent report that the research findings are used by the management for making policy-level decisions on starting new courses, improving existing courses, enhancing job-placement efforts, and counselling and other necessary services (21 per cent overall). Research at TEVTs for enhancing employment outcomes (e.g. job placement services, entrepreneurship and CC/VG) is an emerging area: it is therefore at a rudimentary stage of development.

Summary of Findings as a TEVT System Assessment Model for Employment Promotion

This study has identified numerous critical gaps in the provision of services to male and female students who are working to acquire the skills that will enable them to enter the labour market on terms that will provide decent work, proper remuneration and conducive working environments.

ILO promotes system-wide approach for generating positive employment outcomes for TEVT graduates. System-wide approach refers to presence and functioning of at least eight organizational systems that work in sync with each other and support graduates before, during and after their training towards ensuring gainful employment.

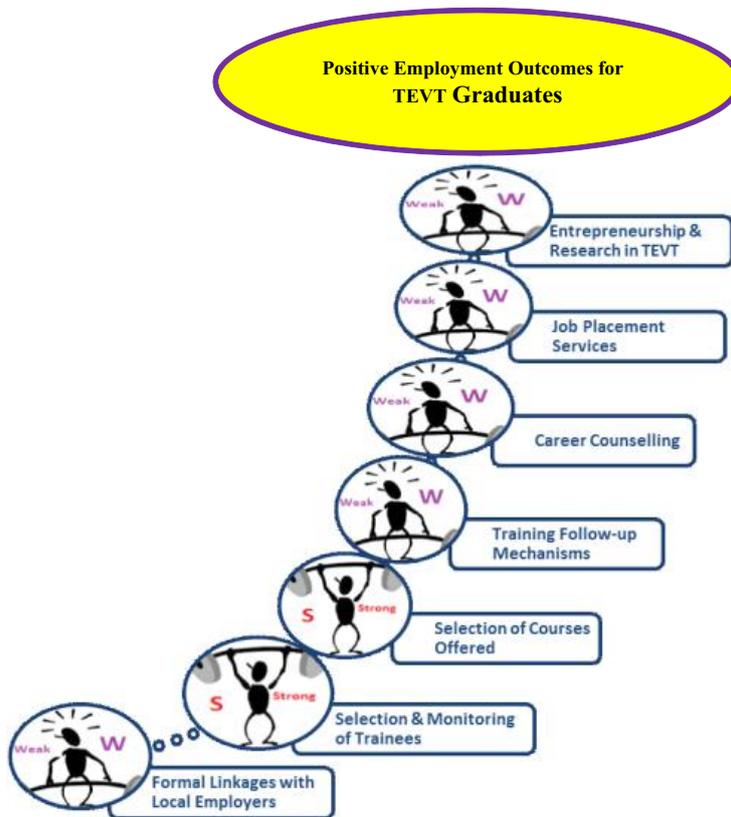
Focal Components of System-Wide Approach towards Employment of Graduates	Applicable and Useful during		
	Pre-Training	During-Training	Post-Training
1. Formal linkages with, and involvement of, employers and enterprises in training design, implementation, and assessment	Yes	Yes	No
2. Selection and monitoring of trainees for the courses	Yes	Yes	No
3. Offering courses in line with market demand	Yes	Yes	No
4. Training follow-up mechanisms	No	Yes	Yes
5. Career counselling and vocational guidance	Yes	Yes	No
6. Job placement services	No	No	Yes
7. Entrepreneurship education and development	Yes	Yes	Yes
8. Research in TEVT institutions.	Yes	Yes	Yes

From the preceding findings of this research the TEVT institutions can be judged to have weak or strong organizational system for positive employment outcomes for their graduates. A particular system has been judged strong if it is found implemented widely across the TEVT sector, i.e., reported by at least 40 per cent participating institutions; otherwise the system has been categorized as weakness across the institutions. In addition to this quantitative criterion, overall impression gained from qualitative responses (not reported here) has also been used for the categorization of institutional systems into sector-wide strength of weakness.

Of the eight focal assessment areas, study has found that TEVT sector has “strengths” in just two components of the system-wide approach comprising eight focal areas. Some gaps are particularly noteworthy: for example, the lack of linkages with industries seeking employable workers, absence of career counseling and vocational guidance, job placement service and entrepreneurship support. TEVT institutions tend to focus only on systems required for effectiveness “during-training”; pre- and post-training systems are generally found neglected.

The study makes it clear that there are system-wide gaps and shortfalls in training follow-up mechanism and other modern ancillary services such as entrepreneurship, career counselling and vocational guidance, TEVT research. These are practically non-existent in the TEVT institutions of Pakistan. Unless the full spectrum of services in these eight areas is improved, the employment prospects of TEVT graduates will remain slim.

The findings are summarized as a model below followed by recommendations and conclusion.



Assessment of Organizational Systems in TEVT Institutions of Pakistan

Recommendations

Following set of recommendation are aimed at addressing the gaps identified in the assessment study.

Career Counselling & Vocational Guidance

- There is a need to create CC/VG as a profession whereby trained professionals are licensed to offer CC/VG services.
- Respective provincial government should formulate a public policy on career guidance and make it mandatory service to be offered a free good across all TEVT institutions. The policy should have appropriate safeguards and regulations for service provider in this field.
- The government should strengthen private-sector's role in promoting CC/VG services and regulating itself. NAVTTC or provincial TEVTAs should take lead in creating model CC/VG centres in all major cities under public-private partnership mode.

Entrepreneurship Development

- Entrepreneurship training should be made compulsory component of TEVT curricula and qualifications. All courses taught at TEVT institutions should have an entrepreneurship module built into them.
- There is a need for a national incubation strategy which should specially focus on creating incubation centre at TEVT institutions. Pakistan can learn a great deal from Saudi Arabia which crafted a National Policy for Technology Incubation under which several incubation centres have been established at technical institution and universities since 2007.¹⁵
- NAVTTC, provincial TEVTAs or SDCs should take lead in creating business incubation models specific to the needs to TEVT sector in Pakistan.
- TEVT institutions would require capacity building in establishing and running incubation centres successfully. International organizations, such as the ILO and Ashoka Foundation, which have a mandate to promote entrepreneurship education, may be approached by TEVT institutions for technical assistance.
- Some local universities such as National University of Science and Technology (NUST), Institute of Business Administration (IBA), Karachi and Lahore University of Management Sciences (LUMS) have been running business incubation centres. TEVT institutions should be learn from these initiatives. Similar linkages with TEVT institutions abroad may also be helpful in finding best-practices in integrating entrepreneurship with technical education and vocational training imparted to students.
- TEVT graduates should have easy access to finance. Local microfinance institutions should be encouraged to provide funds to them under an institutional arrangement with the TEVT institutions. Creating a workable system would require a piloting sturdy or project involving TEVT and microfinance organizations. NAVTTC, provincial TEVTAs or private-sector institutions should come together and create scalable model.

¹⁵ <http://sbin.org.sa/en/about/incubation-in-saudi-arabia> Date Accessed: December 2013

Formal Linkages with Employers

- Valuable lessons in forging formal linkages can be learned from top universities such as IBA, LUMS etc. They maintain regular formal and informal contact with employers and continuously market themselves.
- TEVT institutions need to go beyond just having the industry represented on governing body; they need to allow the employers more say in devising organizational policies and accountability mechanisms.
- TEVT institutions should have more extensive interaction with the industry at all levels and not just the governance matters. Encouraging instructors to have more guest speakers from industry should happen routinely. Similarly, more field visits by students to industry should happen. These practices only require managerial resolve and commitment.

Jobs Placement Services

- TEVT institutions can again learn from top universities in the country and adopt their best practices in establishing and running effective job placement services for their students.
- This again is an area in which TEVT institutions would require technical assistance and training support, which NAVTTC or donors should provide.
- TEVT institutions should form their own network and learn from each other's experience in employer's engagement and effective job placement practices.

Research in TEVT Institutions

- The government should take lead in this respect. NAVTTC, in collaboration with provincial TEVTAs and private institutions, should identify one TEVT institution in each category and invest in building its understanding and capacity in TEVT research, which is now considered a distinct discipline. The government may also consider establishing a TEVT research centre in each province.
- Donors like the ILO can lend a helping hand to interested governments in strengthening their public institutions in TEVT research skills. Alternatively, capacity of private sector outfits could also be enhanced by way of technical assistance.

Training Follow-Up Mechanisms

- NAVTTC and provincial governments should invest in capacity building and system development to enhance M&E capabilities of TEVT institutions.
- Pakistan's top universities already have useful models of alumni engagement. TEVT institutions should learn from their academic counterparts and implement these time-tested practices.
- TEVT institutions need to build their capacity in conducting regular tracer studies and using them for improving organizational practices. Tracer studies should be cornerstone of the M&E system at TEVT institutions.

Conclusions

The system-wide gaps identified in this study call for immediate action on part of policy makers, institutions themselves, employers and other key stakeholders. If these gaps are allowed to persist it will be a great disservice to TEVT students, their parents, and ultimately to the economy itself, which requires skilled workforce to grow.

This ground-breaking study comes with data-rich compendiums of survey results. Each compendium is available as an e-publication, details provided in Annex 1 below.

It is hoped that the study will attract the interest of researchers, academicians, donors, TEVT institutions, and most importantly policy makers (e.g. in labour, economics and education) and that they will use it to derive new insights and to inform their policy and programming decisions for modernizing the sector-wide TEVT systems. This has the potential to result in far better employment outcomes for TEVT graduates inside and outside Pakistan.

Annex 1:

Supplemental E-Publications

Following additional e-publications are available and can be purchased online or delivered as PDF document by e-mail. Please write to: shadab@fourcg.com (or) sfuddin@fourcg.com

Directory of TEVT Institutions in Pakistan

This Directory provides details key contacts, programmes offered and other key information on 126 institutions surveyed for the study

Compendium of Detailed Survey Results

This publication presents key findings. However, we feel that the processed data, as presented here, is a rich source of insights and information on practices and systems obtaining in TEVT sector. Therefore this compendium has been brought out to present all the findings, with details, to various stakeholders of TEVT sector in Pakistan.

This 126-page publication contains graphical presentation of each and every question contained in the questionnaire (Annex 3 below). Graphs come with section-wise notes and annotation for. Following is the Table of Content of the Compendium

A Note on the Compendium to the Assessment Study on TEVT Institution

Survey Results and Presentation

Part One: Target Market, Academic Programmes and Physical Infrastructure

Details of TEVT Courses Offered by Institution: Certificate Courses

Details of TEVT Courses Offered by Institution: Diploma

Details of TEVT Courses Offered by Institution: Bachelor's Degree

Details of TEVT Courses Offered by Institution: Post Bachelor's

Details of Physical Infra Structure

Part Two: Assessment of institutional mechanisms to support employment of TEVT students

- Area # 1: Linkages with and involvement of employers and enterprises in training design, implementation, and assessment
- Area # 2: Selection & Monitoring of Trainees for the Course (Pre-Selection)
- Area # 2: Selection & Monitoring of Trainees for the course (During Training)
- Area # 2: Selection & Monitoring of Trainees for the course (Post-Training)
- Area # 3: Selection of Courses
- Area # 4: Training Follow-up Mechanism
- Area # 5: Career Counselling
- Area # 6: Jobs Placement
- Area # 7: Entrepreneurship
- Area # 8: Research in TEVT

Annex 2:

List of TEVT Organizations Surveyed

1. Academy for Engineering Courses
2. ACTMA Textile College & Technical Institute
3. AHD (Association of Human Development)
4. Ahmed Hassan Polytechnic
5. Aik Hunar Aik Nagar (AHAN)
6. Al-Habib College of Engineering and Technology
7. Ali Institute of Education
8. Allama Iqbal College of Commerce
9. Allama Iqbal College of Technology
10. Amantech
11. Lahore Polytechnic Institute
12. Apex Bolan College of Technology
13. Arshad Institute of Technology
14. Art Council Institute of Arts & Crafts
15. Basic Urban Services for Kachi Abadi
16. Boston College
17. Chenab Group of Colleges
18. Creative College
19. Descon Technical Institute
20. Don Basco Technical & Youth Center
21. Faisalabad College of Technology & Management Science
22. Faisalabad Polytechnic Institute

23. Faiz-ul-Islam Technical Training Inst
24. Family Education Services Foundation
25. Family Welfare Kohiraito Society
26. Faran Institute of Technology Gujranwala
27. Faran Institute of Technology Gujrat
28. Federal Institute of Technology
29. Fountain House
30. Girl Vocational Center
31. Govt Technical Training College Pakistan
32. Govt. Institute for Blind, Peshawar
33. Govt. Institute of Information Technology
34. Govt. Technical College
35. Hamza Dastakari Centre
36. HANDS (Health and Nutrition Development Society)
37. Hayat Nan
38. Hunar Foundation
39. Hunerkada
40. Imit College of Technology
41. Imperial Institute of Technology
42. Indus College of Technology
43. Industrial Home
44. Injaz Pakistan
45. Institute of Leather Technology
46. Institute of Professional Advancement
47. Institute of Rural Management, Islamabad

48. Institute of Rural Management, (UFECRIO), R Pindi
49. International Institute of Technology
50. IRC (Indus Resource Center)
51. ISC (Institute of Social Change)
52. Islamabad Vocational & Technical Institute
53. ITA
54. Jamia Hafsa Lilbanat
55. Jinah Endeavours Institute
56. Kaka Bawany Vocational Cener
57. Karachi Vocational Training Center
58. Karwan Foundation Kraft Livelihood
59. Kasib Polytechnic Institute
60. Kasib Vocational Training Institute
61. Khadim Vocational Center
62. Khatoon Industrial Centre
63. KTDMC (Karachi Tools Dies & Moulds Center)
64. Lahore College for Women University Lahore
65. Laila's Institute for Beauty And Fashion Training
66. Leather Product Development Inst
67. Leeds Training Centre
68. M. Amin Polytechnic Voc. Institute
69. Mughal Pura Society
70. Multan Polytechnic Institute
71. Multan Vocation Training Centre
72. Muslim Hand Technical Training Center

73. National College of Textile
74. National Institute of Design & Analysis
75. New Pak Technical Training Institute
76. Nimra Silaee Centre
77. Nishtar College of Commerce
78. Oxford College of Engineering and Technology
79. Pak International Technical & Vocational Institute
80. Pak Polytechnic Institute (Girls)
81. Pak Polytechnic Institute (Boys)
82. Pak Polytechnic College
83. Pak Technical & Vocational Centre
84. Pakistan Education Network
85. Pakistan Institute of Tourism & Hotel Management
86. Pakistan Institute of Technical Studies
87. Pakistan Readymade Garments Technical Training Institute Karachi
88. Pakistan Society for Training & Development
89. Peshawar Foundation Vocational Institute
90. Phma Institute of Knitwear Technology
91. PIA Training Center
92. Plastic Technology Center
93. Premier Institute of It & Management Sciences
94. Prime Institute of Technology
95. Punjab Vocational Training Council
96. Qasar-e-Behbood
97. Qureshi Collage of Technology

98. Rana Liaquat Craftsmen Colony
99. Rawal Technical Training Institute
100. Resource Access
101. Rise Skill Building Institute
102. S.M.A Rizvi Textile Institute
103. Siddiqui International Tech and Tech Centre
104. Saleeqa Selai Centre
105. Sanatsaz
106. Sir Syed College of Technology
107. Skill Development Council Karachi
108. Skill Development Council, Punjab, Lahore
109. SOS Technical Training Centre
110. SRSP Technical & Vocational Centre
111. Standard Polytechnic Institute
112. STEVTA
113. Swedish Institute of Technology
114. Techni Test
115. Technology Upgrading & Skill Development Company (TUSDEC)
116. TEVTA (Punjab)
117. The City College of Technology
118. The National College
119. The Oxford Institute of Technology
120. Technical Vocational Centre
121. Vocation Institute of Training (women)
122. YMCA Polytechnic Institute

123. Zeeshan Institute of Science & Technology
124. ZVMG Rangoonwala Community Center
125. Zulfiqar Ali Bhutto Institute of Science & Technology
126. Zulfiqar Ali Bhutto Community & Technical College

Annex 3:

Assessment Survey Questionnaire

The ILO is undertaking an assessment of the employment outcomes of vocational education and training graduates. This assessment will provide critical insights into the current effectiveness of TEVT in Pakistan and will inform future capacity-building support for vocational education and training institutions delivered by the ILO and concerned stakeholders in Pakistan.

The overall objective of this work is to provide improved access to high-quality vocational education and training and to enable vulnerable people greater opportunities to secure decent employment.

Instructions

Part One of this instrument requires the collection of basic quantitative data from the training institution. This will form an 'inventory' of major training-providers in the public, semi-Government and private sectors. This information will be based on institute data, not on personal observations by the assessor.

Part Two of the instrument involves data regarding the employers'/industry's participation, selection and monitoring of trainees, selection of courses, follow-up mechanisms, career counselling, job-placement, entrepreneurship and research in TEVT.

Part Three of the instrument requires a case study of each institution where its 'employment facilitation' aspect is adequately highlighted or some challenges in this regard are identified and discussed.

Under each main heading in both parts there are tables and boxes into which the data should be entered.

Confidentiality and consent

The assessor needs to explain that the data collected in this survey is for the use of the project only and will not be published or released to the public in any way that identifies respondents.

Individual institutional data will be coded by the ILO so that specific institutions are not identified.

The participants also need to be informed that this survey will respect the wishes of any participant not to provide data or information which they feel is confidential.

Assessment Questionnaire

Part-1 - Inventory of TEVT Providers in Pakistan

Serial Number	
Name of the Assessor	
Date	
City/Province	

Basic Information

Name of Institution	
Established under which (LAW/ACT)?	
Date Established	
Name & Designation of Head of Institution	
Address of Headquarters	
Contact Numbers	
E-Mail Address	
Website (if Any)	
Name of Respondent	
Designation	
Contact Details	

Type of Institution	<input type="radio"/> Public / Government <input type="radio"/> Semi-Government <input type="radio"/> Private (Industry-led) <input type="radio"/> Private (fee-based) <input type="radio"/> Private (NGO-led) <input type="radio"/> Other (please specify)
---------------------	--

PROGRAMME COVERAGE

Geographic Coverage	<input type="radio"/> National <input type="radio"/> Provincial (Name) <input type="radio"/> Districts (Names) <input type="radio"/> Sub-Districts (Names) <input type="radio"/> Others (Names)
Types of Programmes Offered	<input type="radio"/> Technical <input type="radio"/> Vocational <input type="radio"/> Commerce <input type="radio"/> Others (Name)

<p>Level of Competencies offered</p>	<p><input type="radio"/> G-1</p> <p><input type="radio"/> G-2</p> <p><input type="radio"/> G-3</p> <p><input type="radio"/> Diploma</p> <p><input type="radio"/> Bachelor's</p> <p><input type="radio"/> Higher</p> <p><input type="radio"/> Others (Name)</p>
<p>Courses Offered for</p>	<p><input type="radio"/> Men (18+)</p> <p><input type="radio"/> Women (18+)</p> <p><input type="radio"/> Transgender</p> <p><input type="radio"/> Young men (15 -29 years)</p> <p><input type="radio"/> Young women (15 -29 years)</p> <p><input type="radio"/> Boy Children (up to 14 years)</p> <p><input type="radio"/> Girl Children (up to 14 years)</p> <p><input type="radio"/> People with Disabilities</p> <p><input type="radio"/> Any other special group (Name)</p>

<p>Number of Institutes Operated</p>	<p><input type="radio"/> Total _____</p> <p><input type="radio"/> Vocational (Boys) _____</p> <p><input type="radio"/> Vocational (Girls) _____</p> <p><input type="radio"/> Technical (Boys) _____</p> <p><input type="radio"/> Technical (Girls) _____</p> <p><input type="radio"/> Others (Boys) _____</p> <p><input type="radio"/> Others (Girls) _____</p>
<p>Shifts Operated</p>	<p><input type="radio"/> Morning _____</p> <p><input type="radio"/> Afternoon _____</p> <p><input type="radio"/> Evening _____</p>

<p>The estimated percentage of institutes/campuses offering more than one shift is</p>	<p>a) 25%</p> <p>b) 50%</p> <p>c) 75%</p> <p>d) 100%</p>
<p>Qualifications Offered</p>	<p><input type="radio"/> Certificate _____</p> <p><input type="radio"/> Diploma _____</p> <p><input type="radio"/> Bachelor's _____</p> <p><input type="radio"/> Higher _____</p> <p><input type="radio"/> Other _____</p>
<p>Number of posts of instructors in your institution</p>	<p><input type="radio"/> Less than 20 _____</p> <p><input type="radio"/> 20-30 _____</p> <p><input type="radio"/> More than 30 _____</p> <p><input type="radio"/> Do not know _____</p>
<p>Number of instructors' positions vacant in your institution</p>	<p><input type="radio"/> Less than 20 _____</p> <p><input type="radio"/> 20-30 _____</p> <p><input type="radio"/> More than 30 _____</p>

Details of TEVT Courses Offered by Institution

a) CERTIFICATE Courses/Program

C1 The Top-5 offered CERTIFICATE courses are (most in demand)

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____

C2 The duration of the courses offered (check all that apply) is

- a) less than 3 months;
- b) 3 months
- c) 6 months
- d) 12 months
- e) 18 months
- f) 24 months
- g) 36 months
- h) others (please specify)_____

C3 The beneficiaries (check all that applies) are

- a) Men (30+)
- b) Women (30+)
- c) Transgender (any age)
- d) Boys (15-29)

- e) Girls (15-29)
- f) No specific focus (mixed)

C4 The annual physical capacity for Certificate Program/Courses is a) _____

C5 The annual enrolment capacity for Certificate Program/Courses is a) _____

C6 The total current enrolment in Certificate Programmes is (percentage)

Gender: a) Male _____ b) Female _____

C7 The (total) students graduated from Certificate Programmes last year were

a) _____

If exact number is not available from the respondent get the estimated range as follows:

- b) up to 2,000
- c) 2,001 to 5,000
- d) 5,001 to 8,000
- e) 8,001 to 10,000
- f) more than 10,000

C8 The maximum enrolment (of the total graduates) that falls in an age group is

- a) Less than 15
- b) 16-19
- c) 20-25
- d) Above 25
- e) Age Not Available

b) DIPLOMA Courses/Program

D1 The Top-5 offered DIPLOMA courses are (most in demand)

a) _____ b) _____ d) _____ e) _____ f) _____

D2 The duration of the Diploma course(s) offered is (check all that applies)

- a) less than 3 months;
- b) 3 months
- c) 6 months
- d) 12 months
- e) 18 months
- f) 24 months
- g) 36 months
- h) others: _____

D3 The beneficiaries (check all that applies) are

- a) Men (30+)
- b) Women (30+)
- c) Transgender (any age)
- d) Boys (15-29)
- e) Girls (15-29)
- f) No specific focus (mixed)

D4 The annual physical capacity for DIPLOMA Program is a) _____

D5 The annual enrolment capacity for DIPLOMA Program is a) _____

D6 The total enrolment is (percentage)

Gender: a) Male_____ b) Female_____

D7 The (total) students graduated last year were a)_____

If exact number is not available from the respondent get the estimated range as follows:

- b) up to 2,000
- c) 2,001 to 5,000
- d) 5,001 to 8,000
- e) 8,001 to 10,000
- f) more than 10,000

D8 The maximum enrolment fall in the age group is The highest number of drop-outs is in the age group

- a) Under 15
- b) 16-19
- c) 20-25
- d) Above 25
- e) Age Not Available

c) BACHELOR's Degree Program

B1 The Top-5 Bachelor Degree courses offered are (most in demand)

a)_____ b)_____ c)_____ d)_____ e)_____

B2 The duration of the course (check all that applies) is

- a) less than 3 months
- b) 3 months
- c) 6 months
- d) 12 months
- e) 18 months
- f) 24 months
- g) 36 months
- h) others

B3 The beneficiaries (check all that applies) are

- a) Men (30+)
- b) Women (30+)
- c) Transgender (any age)
- d) Boys (15-29)
- e) Girls (15-29)
- f) No specific focus (mixed)

B4 The annual physical capacity is a) _____

B5 The annual enrolment capacity is a) _____

B6 The total enrolment is (percentage)

Gender: a) Male _____ b) Female _____

B7 The (total) students graduated last year were a) _____

If exact number is not available from the respondent get the estimated range as follows:

- b) up to 2,000
- c) 2,001 to 5,000
- d) 5,001 to 8,000
- e) 8,001 to 10,000
- f) more than 10,000

B8 The maximum enrolment fall in the age group is The highest number of drop-outs is in the age group

- a) Under 15
- b) 16-19
- c) 20-25
- d) Above 25
- e) Age Not Available

d) HIGHER (Post-Bachelor's)

H1 The Top-5 offered courses are (most in demand)

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____

H2 The duration of the course (check all that applies) is

- a) less than 3 month
- b) 3 months
- c) 6 months
- d) 12 months
- e) 18 months
- f) 24 months
- g) 36 months
- h) others

H3 The beneficiaries (check all that applies) are

- a) Men (30+)
- b) Women (30+)
- c) Transgender
- d) Boys (15-29)
- e) Girls (15-29)
- f) No specific focus (mixed)

H4 The annual physical capacity is

- a) _____

H5 The annual enrolment capacity is

- a) _____

H6 The total enrolment is (percentage)

Gender: a) Male _____ b) Female _____

H7 The (total) students graduated last year were

a) _____

If exact number is not available from the respondent get the estimated range as follows:

- b) up to 2000
- c) 2001 to 5000
- d) 5001 to 8000
- e) 8001 to 10000
- f) more than 10000

H8 The maximum enrolment fall in the age group is

- a) Less than 15
- b) 16-19
- c) 20-25
- d) Above 25
- e) Age Not Available

e) OTHERS

O1 The Top-5 offered courses are

a) _____ b) _____ c) _____ d) _____ e) _____

O2 The duration of the course (check all that applies) is

- a) less than 3 month
- b) 3 months
- c) 6 months
- d) 12 months
- e) 18 months
- f) 23 months
- g) 36 months
- h) others

O3 The beneficiaries (check all that applies) are

- a) Men (30+)
- b) Women (30+)
- c) Transgender
- d) Boys (15-29)
- e) Girls (15-29)
- f) No specific focus (mixed)

O4 The annual physical capacity is

- a) _____

O5 The annual enrolment capacity is

- a) _____

O6 The total enrolment is (percentage)

Gender: a) Male _____ b) Female _____

O7 The (total) students graduated last year were

a) _____

If exact number is not available from the respondent get the estimated range as follows:

- b) up to 2000
- c) 2001 to 5000
- d) 5001 to 8000
- e) 8001 to 10000
- f) more than 10000

O8 The maximum enrolment fall in the age group is

- a) Less than 15
- b) 16-19
- c) 20-25
- d) Above 25
- e) Age Not Available

DETAILS OF PHYSICAL INFRASTRUCTURE

Infras 1 The percentage of campuses of your institution where library facility is available

- a) 0% b) 25% c) 50% d) 100%

Infras 2 The libraries meet the educational needs of students and instructor.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

Infras 3 The average number of classrooms available at a campus of your institution is

- a) Less than 2 b) 3-5 c) 6-10 d) More than 10

Infras 4 The classrooms at premise are according to the enrolment capacity.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

Ifras 5 Electricity is adequately available at ALL the premises/campuses

- a) Yes b) No (If No, answer the followings)

Infras 6 You have generator facility to run classroom, labs, etc. at premise(s).

- a) At all places b) Most of places c) some places d) Rarely e) Not at all

Assessment Questionnaire

Part-2 - Assessment of institutional mechanisms to support employment of TEVT students

Area # 1: Linkages with and involvement of employers and enterprises in training design, implementation, and assessment

Linkg: Your institution has formal and across-the-board links with employers or local enterprises.

- A) YES (fully) B) NO C) Partially

(If answer is no, please ignore this section and proceed to next section)

L1 Industry is formally represented in the Governing Body.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

L2 Industry is formally represented in Institute Management Committee.

- a) At all places b) Most of places c) Some places d) Rarely e) at all

L3 Industry decides on selection of courses.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

L4 Industry decides on recruitment of instructors/staff.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

L5 Industry participates in curriculum development and updating.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

L6 Industry participates in monitoring of training courses.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

L7 Industry provides 'training consumables/materials' to the institution or trainees.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

L8I ndustry advises on, donates or purchases equipment for the institution or trainees.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

L9 Industry helps in providing work experience or 'apprenticeships' for trainees.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

L10 Employers or industry approach(es) for assistance with recruitment or staff training services.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

Area # 2: Selection & Monitoring of Trainees for the course

PRE-SELECTION PROCESS

PT 1 There is a system to check technical appropriateness of trainees.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

PT 2 Your selection system evaluates socio-economic background of trainees.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

PT 3 There is a system to verify 'economic' condition of trainee.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

PT4 Your selection system conducts any aptitude test for trainees.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

PT5 Your system determines suitability of a course with vocational aspiration of candidates.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

PT6 There is a system to make physical access convenient for special trainees.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

DURING TRAINING

DT1 Students receive formal feedback on progress during the course through assessments.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

DT2 Your system has formal mechanism to measure whether trainees maintain their interest in the course/program.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

DT3 There is a formal system to allow trainees express their problems with the course.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

DT4 There is a formal system to help trainees in resolving their problem with the course or any learning difficulties they may have.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

POST-TRAINING

PST1 Your system formally allows students to evaluate the course and the institution at the end of the course.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

PST2 A formal 'exit interview' with students is conducted at the end of the program or do they receive any counselling about next steps.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

PST3 Your system checks formal output of each course (pass-out-rate).

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

Area # 3: Selection of Courses

Selection of Courses

SC1 There is a formal system in the institution through which the selection of courses for a year or semester is made against the needs of local employers and/or student demand.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

SC2 Your institution formally consults employers before finalizing course/program schedule.

- a) Yes b) No c) Not applicable

SC3 Your institution has a formal mechanism to update training courses/curriculum based on employment outcome or student feedback.

- a) Yes b) No c) Not applicable

Area # 4: Training Follow-up Mechanism

Training Follow-up Mechanism

TF1 There is a formal comprehensive electronic database of trainees.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

TF2 The database formally records multiple contact details of each trainee for future follow-up.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

TF3 Your institution has a formal system to periodically (annually/semi-annually) check employment of every trainee after completion of training

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

TF4 During follow-up, trainees are formally asked to comment on 'how well the course prepared them for future employment.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

TF5 During follow-up, trainees are formally asked to comment on 'appropriateness' of training equipment they used during training.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

TF6 Your institution formally compiles report on students follow up and course outcomes.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

TF7 Your institution formally uses the 'employment status report' is used for taking policy-decisions about future course correction.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

Tf8 Your institution formally maintains regular contacts with the alumni and involve them through various events.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

TF9 Your institution formally invites former trainees to share their practical life experiences with new trainees.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

TF10 Your institution formally checks employability of each training course.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

TF11 The industry formally recognizes qualification earned at your institution.

- a) Yes b) No c) Not applicable

Area # 5:

Career Counselling

C: There is an institutional arrangement for providing Career Counselling & Vocational Guidance to trainees

- a) Yes b) No

(If answer is no, please ignore this section and proceed to next section, if answer is yes, please elaborate the system)

Career Counselling

CC1 There is a professional career counsellor available

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

Cc2 There is a system to conduct psycho-metric analysis of each trainee to assess their aptitude and potential.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

CC3 There a system to inform trainees about the emerging trends in their respective job sectors.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

CC4 There is a training course about core/soft skills for students.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

Cc6 There is a system to guide students about different options for employment including self-employment and overseas employment.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

Area # 6:

Jobs Placement

There is an institutional arrangement for placement of successful trainees for jobs

Yes/No

(IF ANSWER IS NO, PLEASE IGNORE THIS SECTION AND PROCEED TO NEXT SECTION)

IF ANSWER IS YES, PLEASE ELABORATE THE SYSTEM

Jobs Placement

JP1 There is a formal linkage with local industries for placement of trainees.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

JP2 There is a formal system of periodical visits by Industry/employers to training institutes for guiding students.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

JP3 There is a formal system of periodical visits by 'TEVT Trainees' to local industries and workplaces.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

JP4 There is a formal system to guide trainees on job-hunting, CV-making, preparation for interviews and other related skills.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

JP5 There is a formal system of 'Jobs-Board' in each institute to facilitate trainees in job-search.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

JP6 There is a formal system of Apprenticeship with local industry/employers.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

Jp7 There is a formal linkage with overseas employment promoters for overseas employment of trainees.

- a) Yes b) No c) Not applicable

Area # 7: Entrepreneurship

Entrepreneurship

E1 Entrepreneurship education is part of the qualifications program offered

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

E2 There is a formal system to provide incubation service for new starters of business.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

E3 There is a formal system to provide business-development services to new starters either through the institution or through partner service providers.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

E4 There is a formal system to provide mentoring by local industrialists/employers to new starters.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

E5 There is an institutional system/linkage to provide small loans for starting new businesses.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

E6 There is a formal system to conduct 'business ideas competitions' for encouraging new business ideas.

- a) At all places b) Most of places c) Some places d) Rarely e) Not at all

Area # 8:

Research in TEVT

Your institution has research cell?

- a) Yes b) No

(If answer is yes, please answer the questions of this section.)

R1 There is a formal research unit which carries out research.

- a) Yes b) No c) Some Times d) Not applicable

R2 There are adequate numbers of qualified personnel available in research unit.

- a) Yes b) No c) Some Times d) Not applicable

R3 The research unit analyses statistical and other data on the labour market.

- a) Yes b) No c) Some Times d) Not applicable

R4 The research unit carries out sector assessments to identify skill needs.

- a) Yes b) No c) Some Times d) Not applicable

R5 The research unit carries out regular Tracer Studies for each course being offered by institution.

- a) Yes b) No c) Some Times d) Not applicable

R6 Research unit carries out 'Employment Opportunity Assessment' for designing future courses.

- a) Yes b) No c) Some Times d) Not applicable

R7 Research Unit carries out regular Performance Audit of training Institutes.

a) Yes b) No c) Some Times d) Not applicable

R8 Research Unit carries out regular Performance Audit of each course.

a) Yes b) No c) Some Times d) Not applicable

R9 Findings of Research Unit are compiled in a periodic report and disseminated to relevant Stakeholders.

a) Yes b) No c) Some Times d) Not applicable

R10 Findings of Research Unit are given serious consideration by the Management.

a) Yes b) No c) Some Times d) Not applicable

R11 Findings of Research Unit are used for Policy Decisions (starting new courses, modification of courses, job-placement efforts).

a) Yes b) No c) Some Times d) Not applicable

Assessment Questionnaire:

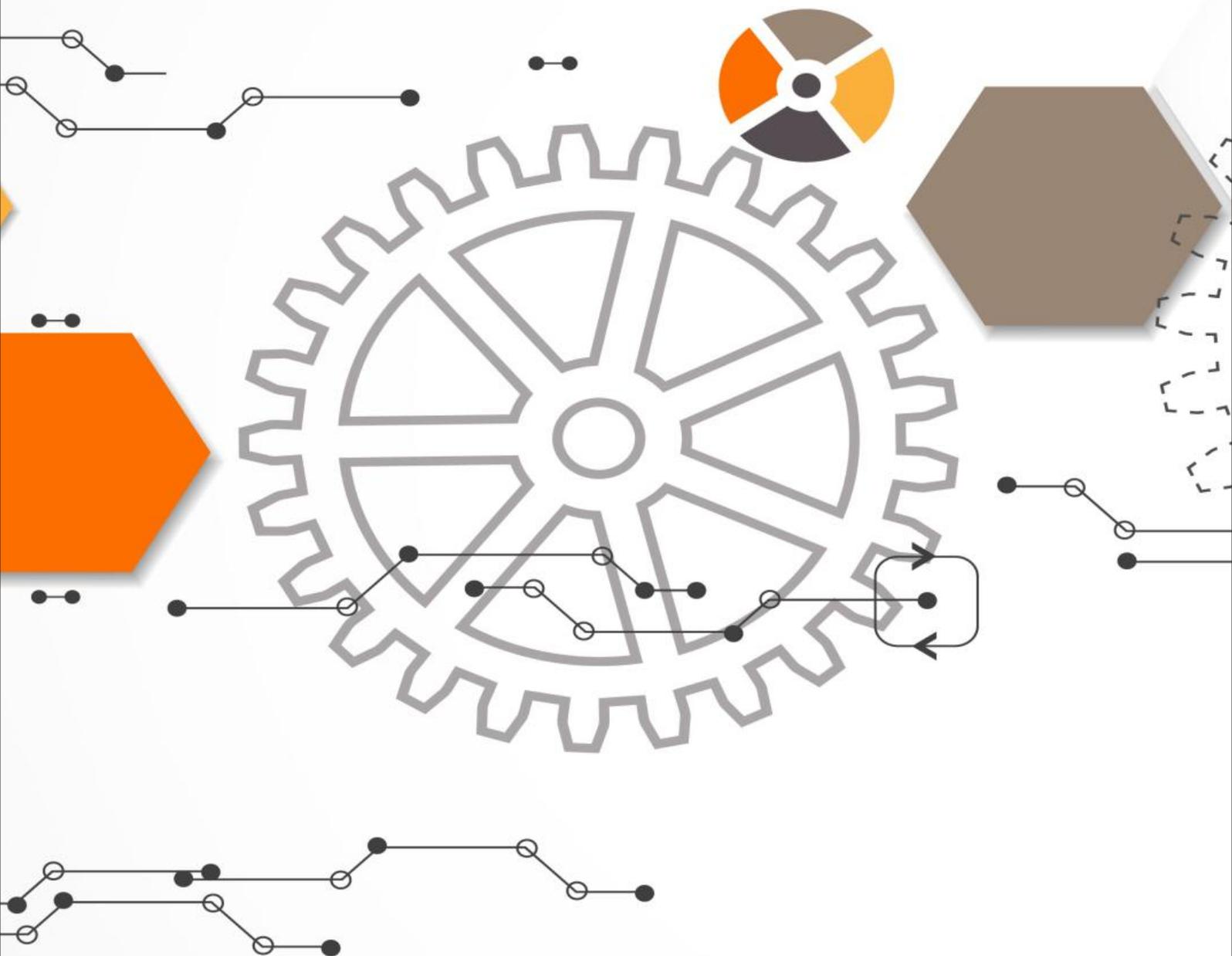
Part-3 – Case Study

Please identify one or two good case studies which closely depict the efficacy of your TEVT Programme linked with Employment – to be used a good-practice for future.

Max 300 words



Thank you for your cooperation



ILO Country Office for Pakistan
ILO Building, Sector G-5/2
Islamabad, Pakistan
Tel +92-51-2276456-8
Fax +92-51-2279181-2
E-mail: islamabad@ilo.org
www.ilo.org/islamabad

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