The Tracer Study Report
On
Pre-Diploma Mechanical Graduates

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May 2025

Abstract

This tracer study report investigates the post-graduation pathways, employment outcomes, and feedback of graduates from the Pre-Diploma in Mechanical Engineering program at Bheri Technical School (BTS). The study aimed to assess the effectiveness of the training provided by BTS in preparing students for the labor market and further education. Data were collected from 24 out of 32 total graduates between fiscal years 2076/77 and 2079/80, achieving a 75% response rate.

Key findings reveal that a majority of graduates have successfully transitioned into employment or further studies, with 75% employed or self-employed and 25% enrolled in continued education. Most respondents reported a positive experience with the BTS program, particularly appreciating the On-the-Job Training (OJT), practical lab sessions, and instructor support. Graduates also acknowledged the alignment of the curriculum with market needs, though several suggested updates to enhance training quality and industry linkage.

The study concludes that BTS has played a crucial role in equipping students with job-ready skills. Recommendations include strengthening practical training, improving facilities, updating the curriculum based on market demands, and expanding career guidance services. These findings will support BTS and stakeholders in improving the quality and relevance of technical education and training.

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LIST OF ACRONYMS

Acronym	Full Form
BTS	Bheri Technical School
CTEVT	Council for Technical Education and Vocational Training
TVET	Technical and Vocational Education and Training
ECDF	Early Childhood Development Facilitator
OJT	On-the-Job Training
NPR	Nepalese Rupees
NSTB	National Skill Testing Board
PTS	Pokhara Technical School
NBPI	Nepal Banepa Polytechnic Institute
ILO	International Labor Organization
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNEVOC	UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training
GIZ	Deutsche Gesellschaft für International Zusammenarbeit (German Development Agency)
TESDA	Technical Education and Skills Development Authority (Philippines)
ADB	Asian Development Bank
MoU	Memorandum of Understanding
FY	Fiscal Year
B.S.	Bikram Sambat (Nepali Calendar)

CHAPTER 1- INTRODUCTION

1.1 Background

Bheri Technical School (BTS) is a constituent school of the Council for Technical Education and Vocational Training **(CTEVT)**, established on July 9, 1993 (2050 Asar 25 B.S.). It is located in Nepalgunj Sub-Metropolitan City, Wards No. 10 and 12, Banke district. The school lies approximately 516 kilometers west of Kathmandu by road via the East-West Highway and is also well connected by air, with a flight time of about one hour covering a distance of 367 kilometers.

BTS is recognized as one of the leading **Technical and Vocational Education and Training (TVET)** institutions in Nepal under **CTEVT**. It plays a vital role in preparing a skilled workforce for employment in the construction, manufacturing, and service sectors. The school currently offers **five diploma-level programs:** Electrical, Mechanical, Civil, Pharmacy, and Radiography. Additionally, it runs 18-month **pre-diploma courses in seven technical and service fields:** Electrical, Mechanical, Automobile, Electronics, Refrigeration & Air Conditioning, Civil, and Secretarial. Alongside its regular programs, BTS also implements various **sponsored courses** and **apprenticeships**, including training for **Early Childhood Development Facilitators (ECDF), Mechanical** and **Automobile apprentices**, as well as **short-term livelihood skill training**.

Although **BTS** currently operates **12 different programs**, this **tracer study** focuses exclusively on graduates of the **Pre-Diploma in Mechanical Engineering** program. The primary objective is to assess the graduates' **employment status**, the **relevance**

of their training, involvement in **further education**, and **challenges encountered** in the labor market. The study includes graduates from **four academic years**: **2076, 2077, 2078, and 2079 B.S.**

Data were collected using a structured questionnaire consisting of 28 targeted questions. Responses were gathered through **telephone interviews**, **in-person visits**, and **virtual meetings**. The findings of this study are expected to support **evidence-based improvements** in **curriculum**, **teaching methods**, and **industry linkages** for better **employability** of future graduates.

1.2 Rationale of Tracer Study

A tracer study is a crucial tool for assessing the **relevance**, **effectiveness**, and **impact** of technical education and training programs. As a prominent institution under the **Council for Technical Education and Vocational Training (CTEVT)**, **Bheri Technical School (BTS)** strives to ensure that its graduates possess the necessary **skills**, **knowledge**, and **competencies** to meet the demands of the labor market.

Although BTS offers a wide range of **12 technical and vocational programs**, there has not been a comprehensive tracer study conducted to evaluate the outcomes and success of its graduates. This study focuses specifically on the **Pre-Diploma in Mechanical Engineering** program to address this gap. The primary aim is to evaluate the **employment status**, **skill applicability**, and the **real-world impact** of the training received by the graduates.

By identifying both the **strengths and challenges** of the program from the graduates' perspectives, the study will provide valuable insights into how effectively the program's training is translated into professional success.

The findings will enable BTS to:

- **Update and refine the curriculum** to ensure alignment with current labor market needs,
- **Enhance teaching and learning practices** to foster a more practical and industry-relevant education,
- **Strengthen collaborations** between the school and industry to improve employment outcomes for graduates, and
- **Support evidence-based decision-making** for program improvements and resource allocation.

Ultimately, this tracer study aims to contribute to the **continuous quality improvement** of technical education at BTS and ensure that graduates are better equipped, more competitive, and **better prepared for the job market**.

1.3 Problem Statement

The effectiveness of technical education and training programs largely depends on how well they equip graduates with the necessary skills and competencies to succeed in the labor market. Despite offering a variety of technical programs, **Bheri Technical School (BTS)** has not conducted a comprehensive tracer study to assess the long-term impact of its **Pre-Diploma in Mechanical Engineering** program.

As a result, there is limited information on the **employment status**, **income levels**, and **workplace contributions** of graduates. This lack of data makes it difficult to

determine whether the training provided aligns with current industry needs and enhances the employability of graduates.

Furthermore, without this crucial feedback, it becomes challenging for BTS to identify areas for improvement in the curriculum, teaching methods, and overall program structure.

Therefore, this study aims to address these gaps by tracing the **graduates' post-graduation experiences** and **assessing the effectiveness** of the training in relation to their career success and professional development.

1.4 Objectives of the Study

The main objective of this study was to trace the graduates of the **Pre-Diploma in Mechanical Engineering** program at **Bheri Technical School (BTS)** to assess their current **employment status**, **income levels**, and how the training has contributed to their **workplace performance**. The specific objectives of the study were:

1. To assess the income and employment status of graduates from the Pre-Diploma in Mechanical Engineering program.
2. To evaluate the nature of employment and its relevance to the training received.
3. To gather graduates' perceptions on the curriculum and teaching methods.
4. To determine the time taken for graduates to secure employment after completion.
5. To provide recommendations for improving the program to enhance employability and align with industry needs.

1.5 Scope of the Study

This tracer study is specifically focused on the graduates of the **Pre-Diploma in Mechanical Engineering** program at **Bheri Technical School (BTS)**. It covers graduates from the academic years **2076, 2077, 2078, and 2079 B.S.**, aiming to evaluate the effectiveness of the training provided under this program in terms of employment outcomes and practical applicability in the workplace.

The study explores key aspects such as:

- **Employment status** of graduates, including self-employment, wage employment, volunteer work, or unemployment.
- **Relevance of current employment** to the training received during the Pre-Diploma program.
- **Average monthly income** of employed graduates and the time required to secure employment after graduation.
- **Further study trends**, identifying graduates who have pursued higher education or additional training.
- **Graduate perceptions** regarding the quality and effectiveness of the curriculum, teaching-learning processes, and training facilities.

The study is limited to one specific program—**Pre-Diploma in Mechanical Engineering**—and does not include graduates from other diploma or pre-diploma programs offered at BTS. However, its findings are expected to provide valuable insights that can support **institutional improvement**, inform **curriculum revision**, and enhance the **overall quality and relevance** of technical and vocational education at BTS.

1.6 Limitation of the Study

While this tracer study provides significant insights into the employment status, further education, and workplace performance of graduates from the **Pre-Diploma in Mechanical Engineering** program at **BTS**, certain limitations remain:

1. **Limited Program Coverage**: The study is confined to a single program—*Pre-Diploma in Mechanical Engineering*. It does not include graduates from other diploma or pre-diploma programs offered at BTS.
2. **Restricted Time Frame**: Only graduates from four academic years—**2076 to 2079 B.S.**—were included. Therefore, the findings may not represent broader trends across different time periods.
3. **Partial Graduate Reach**: Out of the total **32 graduates**, only **24 could be successfully traced and contacted**. The remaining graduates were unreachable due to outdated contact details, migration, or other communication barriers.
4. **Subjectivity in Graduate Responses**: The accuracy of the findings depends on the graduates' recall and willingness to share information. This introduces potential for personal bias and variation in response reliability.
5. **Limited Employer and Workplace Feedback**: Although some employer feedback was collected, the study team was able to **visit only a few workplaces** and directly consult with a **limited number of employers**, which may not fully capture the perspectives of the broader employment sector.

CHAPTER 2- LITERATURE REVIEW

Tracer studies have become a crucial evaluation mechanism in the field of education, especially within the Technical and Vocational Education and Training (TVET) sector. These studies are designed to follow up on graduates after the completion of their training to assess their employment status, the relevance of their training, income levels, and workplace performance. In the context of Nepal, tracer studies are increasingly being used by TVET institutions under the supervision of the **Council for Technical Education and Vocational Training (CTEVT)** to improve program quality, enhance employability, and align curricula with the needs of the labor market.

Globally, tracer studies have been implemented since the 1980s and are now an established part of quality assurance systems in countries like Germany, Indonesia, the Philippines, and Tanzania. These studies are used not only to track the employment outcomes of graduates but also to gain insight into skill gaps, workplace relevance, and curriculum effectiveness. For instance, the **Philippines' Technical Education and Skills Development Authority (TESDA)** has institutionalized graduate tracer studies to continuously update training standards and labor market policies (TESDA, 2018). Similarly, countries like **Germany** integrate tracer feedback directly into their dual vocational training systems to ensure real-time alignment with evolving technological trends (UNESCO-UNEVOC, 2016).

In Nepal, the concept of tracer studies was formally introduced in the early 2000s as part of CTEVT's broader effort to improve quality and accountability in TVET programs. The first significant tracer study initiated by **CTEVT** was conducted in **2005**, focusing on short-term training graduates under its Skills Testing and

Certification system (CTEVT, 2005). Since then, tracer studies have been incorporated as part of the **monitoring and evaluation framework** of TVET programs across the country.

CTEVT's **Strategic Plan (2021–2025)** highlights tracer studies as a key tool for institutional performance assessment and continuous quality improvement. It mandates affiliated institutions and constituent schools to periodically conduct tracer studies to evaluate graduate outcomes, understand industry needs, and guide curriculum revisions (CTEVT, 2021).

Furthermore, the **National Skill Testing Board (NSTB)**, which functions under CTEVT, has also conducted several tracer studies to assess the post-certification employment status and income patterns of skill-tested candidates. These studies have shown that candidates from technical trades like mechanical, electrical, and civil engineering have relatively better job placement rates compared to non-technical trades (NSTB, 2020).

Several institutions under CTEVT have already conducted tracer studies to analyze the employability and workplace relevance of their training programs:

- **Pokhara Technical School (PTS)** conducted a tracer study in 2022 which focused on diploma and pre-diploma graduates. The study revealed that a high percentage of graduates were employed in their respective fields of study. However, it also highlighted the need for improved practical training, stronger industry linkages, and more effective career support services (PTS, 2022).

- **Nepal Banepa Polytechnic Institute (NBPI)** published a tracer study in 2021 which emphasized graduate satisfaction, industry feedback, and recommendations for curriculum improvement. Graduates appreciated the learning environment but called for more exposure to real industrial settings and updated equipment (NBPI, 2021).

- CTEVT also conducted a national-level tracer study in 2020, involving graduates from various short-term and diploma programs. The study concluded that while employment rates were relatively high, there were concerns about underemployment, lack of soft skills, and limited job placement support (CTEVT, 2020).

For Bheri Technical School, which is one of the leading CTEVT constituent schools in Nepal, this tracer study aims to build on such existing literature and practice. It focuses specifically on graduates of the Pre-Diploma in Mechanical Engineering program and is expected to generate context-specific data to support curriculum enhancement, better employability, and strategic planning. By comparing findings with those from similar studies, BTS can gain a broader understanding of the effectiveness of its training model and areas for potential improvement.

CHAPTER 3- RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a systematic approach that outlines how a particular study is conducted to address research objectives and answer relevant questions. This chapter explains the procedures used to conduct the tracer study of graduates from the Pre-Diploma in Mechanical Engineering program at Bheri Technical School. The study aims to assess graduates' employability, further study involvement, income generation, and application of learned skills in the workplace.

The study used a mixed-method approach, combining both qualitative and quantitative data collection techniques, to gain comprehensive insights into the relevance and impact of technical training provided by BTS. The methodology was guided by standard tracer study formats provided by CTEVT and other related literature.

3.2 Research Design

The study follows a **descriptive and analytical design**. It is descriptive in the sense that it explores the current status of graduates, their work profiles, and job relevance, and it is analytical as it assesses the relationship between the training provided and its impact on employability and income. This design enables systematic tracking of the post-graduation journey of learners to evaluate the effectiveness of TVET.

The tracer study adopts a **graduate-centered approach**, with a significant focus on graduates' personal experiences, employer perceptions, and institutional perspectives.

3.3 Area of Study

This study was conducted under the jurisdiction of **Bheri Technical School, Nepalgunj**, which is a constituent school of CTEVT. The graduates traced belonged to the Pre-Diploma in Mechanical Engineering program, specifically those who graduated in the fiscal years **2076/2077,2077/078, 2078/079, and 2079/080**.

Although the graduates were originally from Banke and surrounding districts, their current locations varied across Nepal. Therefore, data collection involved virtual, telephonic, and in a few cases, direct physical interaction, depending on accessibility and availability.

3.4 Sampling Method and Sample Size

Bheri Technical School currently runs **12 different academic programs** under various technical disciplines. For the purpose of this tracer study, **one program was selected** using the **Simple Random Sampling** method under **Probability Sampling**. A complete list of all 12 programs was prepared, and each was given an equal chance of being selected. Through a random selection process, the Pre-Diploma in Mechanical Engineering program was chosen for the study.

Once the program was selected, the study adopted a **Purposive Sampling** approach (a type of **Non-Probability Sampling**) to trace graduates from the selected program. Out of a total of **32 graduates** from the **last four academic years (2076–2079)**, **24 graduates were successfully traced and participated** in the study.

The remaining graduates could not be reached due to:

- Migration to unknown locations,
- Unavailable or outdated contact details, or

Additionally, a few **employers** who had hired BTS graduates were included using **Convenience Sampling**, based on their **availability and willingness to respond**. Their inputs offered valuable insights into:

- Graduate workplace performance,
- Industry expectations, and
- The relevance of technical education and training.

Hence, this tracer study used a **mixed sampling approach**:

- **Simple Random Sampling** for program selection,
- **Purposive Sampling** for graduate selection, and
- **Convenience Sampling** for employer selection.

3.5 Nature and Sources of Data

The success of any research largely depends on the quality and relevance of the data collected. In this tracer study, data were collected to capture the multifaceted outcomes of graduates from the Pre-Diploma in Mechanical Engineering program at BTS. The data helped in assessing employment trends, skill applicability, income generation, further education pursuits, and satisfaction levels of both graduates and employers.

3.5.1 Nature of Data

The nature of data used in this study can be broadly classified into **quantitative** and **qualitative**:

a) Quantitative Data: This type of data provides measurable and numerical information that can be analyzed statistically. It includes:

- Number of employed/unemployed graduates
- Type and sector of employment (e.g., self-employed, wage employment, government, private)
- Income levels (monthly earnings)
- Time taken to get first employment
- Number of graduates pursuing further education
- Mode of job acquisition (e.g., school support, self-search, reference)

b) Qualitative Data:

Qualitative data consist of descriptive, non-numerical information gathered to gain in-depth understanding of individual experiences and perceptions. It includes:

- Graduates' satisfaction with training and teaching methods
- Perceived relevance of skills acquired during the course
- Challenges faced in job search and workplace integration
- Employer opinions about the technical competencies, communication, and attitude of graduates
- Suggestions from graduates and employers for improvement

Qualitative data enrich the findings by providing context and meaning behind the statistics.

3.5.2 Sources of Data

To ensure the study was grounded on credible and relevant information, both **primary** and **secondary data sources** were used:

a) Primary Data:

Primary data were directly collected from individuals who were the main stakeholders of this study. These include:

- **Graduates** of the Pre-Diploma in Mechanical Engineering program (graduated in FY 2076/2077, 2077/078, 2078/079, and 2079/080)
- **Employers** who hired or supervised these graduates
- **Faculty and placement staff** from BTS who interacted with the graduates during and after training

Primary data collection methods included:

- Structured questionnaire surveys (telephonic, online, and in-person)
- One-on-one interviews
- Limited workplace visits and observations
- Informal discussions with instructors and coordinators

These sources provided firsthand insights into the graduates' post-training experiences and employment outcomes.

b) Secondary Data:

Secondary data were used to support and validate the primary findings. These were obtained from:

- **Institutional records** of Bheri Technical School (enrollment, pass-out lists, contact records)
- **Previous tracer study reports** conducted by CTEVT and its constituent schools
- **CTEVT Guidelines for Tracer Studies** and TVET strategy documents
- Reports and publications from national and international organizations (ILO, UNESCO, GIZ, etc.)
- Online sources and educational databases related to TVET outcome evaluations

These resources helped in framing the study design, benchmarking the findings, and contextualizing the outcomes within the broader framework of TVET development in Nepal.

3.6 Data Collection Tools and Techniques

Multiple data collection tools and techniques were employed to ensure a comprehensive and reliable understanding of the graduates' current employment status, experiences, and challenges. A combination of surveys, interviews, and direct observations was used to enhance data accuracy and validity.

3.6.1 Questionnaire Survey

A structured questionnaire consisting of **28 carefully prepared questions** was developed based on the standard **CTEVT tracer study format**. The questionnaire focused on:

- Demographic information
- Employment status
- Income range
- Further education status
- Relevance of technical training
- Job satisfaction
- Challenges faced in the labor market

The questionnaires were administered through **telephone interviews**, **Google Forms**, and **direct personal visits**, depending on graduate availability and location. This approach helped reach a higher number of participants and gather consistent data.

3.6.2 Interview

Semi-structured interviews were conducted to gain deeper insights into the experiences and expectations of key stakeholders:

- **Graduates** were interviewed to understand their career journey, satisfaction level, and expectations from technical education.
- **Employers** who had hired BTS graduates were interviewed during workplace visits to assess graduate performance, skill applicability, and workplace behavior.
- **BTS faculty members** were consulted to collect institutional perspectives and suggestions for improving program effectiveness.

These interviews provided valuable qualitative data to complement the survey findings.

3.6.3 Observation

In cases where **workplace visits** were possible, **direct observation** of graduates in their actual work environments was conducted. This helped validate the self-reported data from surveys and interviews. Observations included:

- The nature of the work being performed
- The relevance of training to the job
- Working conditions and tools used
- Interaction with colleagues and supervisors

These field observations added **accuracy and trustworthiness** to the overall data collected.

3.7 Experience of the Researcher

As the researcher conducting this tracer study, I undertook the responsibility of systematically collecting, analyzing, and interpreting data related to the employment outcomes of Pre-Diploma in Mechanical Engineering graduates from Bheri Technical School (BTS). With a background in technical education and institutional management, I approached this study with both academic rigor and a practical understanding of the technical and vocational education and training (TVET) landscape in Nepal.

Throughout the research process, I employed a mixed-methods approach that included direct interviews, structured questionnaires, physical and virtual follow-ups, and employer consultations. These interactions provided firsthand insights into the effectiveness of BTS's training programs, as well as the real-world challenges and opportunities faced by graduates.

This study provided me with the opportunity to enhance my research capabilities—particularly in field coordination, qualitative data handling, and stakeholder engagement. Managing challenges such as tracing graduates over multiple academic years also strengthened my organizational and problem-solving skills.

Engaging with this study has deepened my understanding of how tracer studies can inform curriculum reform and institutional planning. It reaffirmed the importance of continuous graduate follow-up for maintaining the relevance and quality of TVET programs. Overall, this experience has not only contributed to my professional development but also strengthened my commitment to contributing towards data-driven improvements in Nepal's technical education system.

CHAPTER 4- Data Analysis and Presentation

This chapter presents the analysis of data collected from graduates of the Pre-Diploma in Mechanical Engineering program of Bheri Technical School (BTS) from the academic years **2076 to 2079 B.S.** A total of **24 graduates** out of 32 were successfully traced using telephone interviews, physical meetings, and virtual interactions. Additionally, limited feedback was collected from a few employers to enhance the study's depth.

The responses were analyzed using descriptive statistics and presented in the form of tables, charts, and brief interpretations to show trends and outcomes.

4.1 Graduate Tracing Summary

Out of 32 total graduates during the study period:

- **24 graduates** were successfully traced.
- The **response rate** was approximately **75%**

Out of a total of 32 graduates during the study period, 24 graduates were successfully traced and participated in the tracer study. This represents a response rate of approximately 75%. The remaining 25% of graduates were not reachable or chose not to participate, which reflects a reasonable and good response rate for this type of survey. The data obtained from the 24 respondents provide valuable insights into the post-graduation outcomes, employment patterns, and overall satisfaction with the BTS Pre-Diploma in Mechanical Engineering program.

4.2 Year of Graduation of Graduates

The table below presents the year-wise distribution of graduates who participated in the tracer study, indicating the number of students who successfully completed

their Pre-Diploma in Mechanical Engineering program at BTS and were included in the survey. It is important to note that the number of admitted students each year may vary, and these figures specifically reflect the graduates from each academic year who were surveyed.

Table 4.1 Year of Graduation of Graduates

Table 1: Year of Graduation of Graduates.

Year of Graduation	Number of Graduates	Percentage (%)
2076/77	6	25.00%
2077/78	10	41.67%
2078/79	6	25.00%
2079/80	2	8.33%
Total	**24**	**100%**

4.2: Gender of Graduates

This section provides an overview of the gender distribution among the graduates of the BTS Pre-Diploma in Mechanical Engineering program. Understanding the gender demographics helps to assess diversity and identify potential areas for improvement in encouraging a more inclusive learning environment. Below is the gender breakdown of the 24 graduates who participated in the study:

Table 2: Gender of Graduates

Gender	Number of Graduates	Percentage (%)
Male	22	91.67%
Female	2	8.33%
Other	0	0.00%
	24	**100%**

The gender distribution of the 24 graduates in the study reveals that the majority of graduates are male, accounting for 91.67% of the total. Female graduates make up 8.33% of the total, with no graduates identifying as "other" gender. This indicates a strong male dominance in the field of mechanical engineering at BTS, which may reflect broader trends in the technical education and employment sectors. The gender disparity suggests potential opportunities to encourage greater female participation in the program, which could help diversify the workforce in the field.

4.3 Enrollment in Further Education or Training

This section focuses on the enrollment status of graduates in further education or training after completing the BTS Pre-Diploma in Mechanical Engineering program. It provides insight into whether graduates chose to pursue additional studies or training to enhance their skills and qualifications. Below is the breakdown of responses from the 24 graduates surveyed:

Table 3: Enrollment in Further Education or Training

Response	Number of Graduates	Percentage (%)
yes	6	25%
No	18	75 %
Total	**24**	**100%**

Among the 24 graduates surveyed, **25% graduates** reported that they are currently enrolled in **further education or training**. Of these, **4.17% graduate** is pursuing a **Diploma** program in a related technical field, while **20.83% graduates** are preparing for the **Public Service Commission** examinations. Notably, **none** of the respondents reported enrollment in a **Bachelor's Degree** or any **other educational program**.

The remaining **75% graduates** are currently **engaged in employment**, which includes both wage employment and self-employment. This indicates that a majority of the graduates have transitioned directly into the workforce after completing their pre-diploma program, while a smaller portion is focusing on further academic or competitive career preparation.

This analysis suggests a balance between immediate employability and long-term academic or government service aspirations among BTS graduates.

4.4 Employment Status of Graduates

This section highlights the employment status of graduates who participated in the tracer study, offering a clear view of the effectiveness of the Bheri Technical School (BTS) Pre-Diploma in Mechanical Engineering program in preparing students for the workforce or further education. Out of the 24 graduates surveyed, 75% reported being employed, while the remaining 25% either continued their education or training.

Table 4: Employment Status of Graduates

Employment Status	Number of Graduates	Percentage (%)
Employed	17	70.83%
Self-Employed	1	4.17%
Unemployed	0	0.00%
Volunteer	0	0.00%
Total	**18**	**75%**

Table: Employment Status of Graduates (Excluding Further Education)

Among those not currently pursuing further education:

- **70.83%** of graduates are employed in various sectors, indicating a strong correlation between the skills gained at BTS and the demands of the job market. This reflects positively on the alignment between the training provided and industry needs.
- **4.17%** of the graduates are self-employed, which demonstrates that the program encourages entrepreneurial skills. These graduates have ventured into business, showing that the BTS program equips students not only for employment but also for independent ventures.
- **0%** of graduates are unemployed, signifying that BTS's Pre-Diploma program has been successful in preparing students for the workforce. This result is a key indicator of the program's effectiveness in equipping graduates with relevant skills that make them employable right after graduation.
- **0%** of respondents are involved in volunteer work, highlighting that most of the graduates are either in paid employment or have chosen to pursue further studies, as opposed to working without compensation.

This data suggests that the BTS Pre-Diploma in Mechanical Engineering program is highly effective in preparing graduates for immediate employment or for further education, with no significant barriers to entry into the labor market. The fact that there are no unemployed graduates is a strong testament to the program's success in aligning with the current job market.

Furthermore, the presence of self-employment indicates that BTS fosters not only employability but also entrepreneurial confidence, suggesting that the

program supports graduates in taking initiative and starting their own businesses.

In conclusion, the minimal unemployment rate and the presence of both employed and self-employed graduates reflect positively on BTS's educational approach. By continuing to adapt to industry requirements, BTS can further enhance its graduates' success in securing meaningful employment or entrepreneurial ventures, contributing to both individual and national development goals.

4.5 Nature of Current Job

Among the 18 employed graduates of the **BTS Pre-Diploma in Mechanical Engineering** program, the nature of their current job is categorized as follows:

Table 5: Nature of Current Job

Nature of Current Job	Number of Graduates	Percentage of Employed Graduates
Government job	1	5.6%
Private Sector	13	72.2%
Foreign Employment	3	16.6%
Own Business	1	5.6%
I/NGO	0	0.00%
Others	0	0.00%
Total	**18**	**100%**

The majority of employed graduates (72.2%) are working in the **private sector**, indicating that the BTS Pre-Diploma in Mechanical Engineering program aligns well

with industry needs. Additionally, **foreign employment** (16.6%) highlights the global demand for mechanical engineering skills. A smaller proportion of graduates are in **government jobs** and **self-employment** (5.6% each), suggesting limited opportunities or interest in these sectors. No graduates are employed in **I/NGOs**, indicating a lack of opportunities in the non-profit sector for this field.

The combined total of **private sector** and **foreign employment** makes up 88.9% of employed graduates, showcasing the program's strong alignment with both national and global job markets. Graduates opting for **foreign employment** might have found better opportunities abroad, such as higher salaries or more growth prospects, although the **private sector** remains the dominant employer.

On the other hand, **government jobs** and **self-employment** together account for 11.2%, reflecting that a few graduates are seeking stable careers in the public sector or pursuing entrepreneurial ventures. While **self-employment** offers autonomy, it also requires risk-taking and initiative.

The absence of graduates in **I/NGOs** suggests an opportunity for BTS to explore partnerships with non-commercial sectors, particularly those involved in infrastructure or community-based projects, to widen the career prospects for mechanical engineering graduates.

4.6 Relevance of Current Job to TVET Training

This section explores whether the current jobs of the graduates are related to the technical training they received at Bheri Technical School (BTS) during their Pre-Diploma in Mechanical Engineering.

Table 6: Relevance of Current Job to TVET Training

Response	Number of Graduates	Percentage (%)
yes	17	94.4%
No	1	5.6 %
Total	**24**	**100%**

Figure 1: Relevance of Current Job to TVET Training

A significant majority (94.4%) of employed graduates indicated that their current job is directly related to the training they received at BTS. This suggests that the Pre-Diploma in Mechanical Engineering program is effectively designed to equip students with the skills required in the job market. The small percentage (5.6%) of graduates in unrelated fields may reflect personal choices, limited opportunities in specific sectors, or a need for broader career guidance.

4.7 Time Taken to Find First Job After Completing Training

This section explores how quickly graduates of the BTS Pre-Diploma in Mechanical Engineering program secured their first job after completing their training. The time taken to find employment is an important indicator of the effectiveness of the training program in preparing graduates for the job market.

Table 7: Time Taken to Find First Job After Completing Training

Response	Number of Respondents	Percentage (%)
Found job while studying	3	16.7%
Immediately after graduation	12	66.6%
Within 6 months	2	11.1%
More than 1 year	1	5.6%
Total	**18**	**100%**

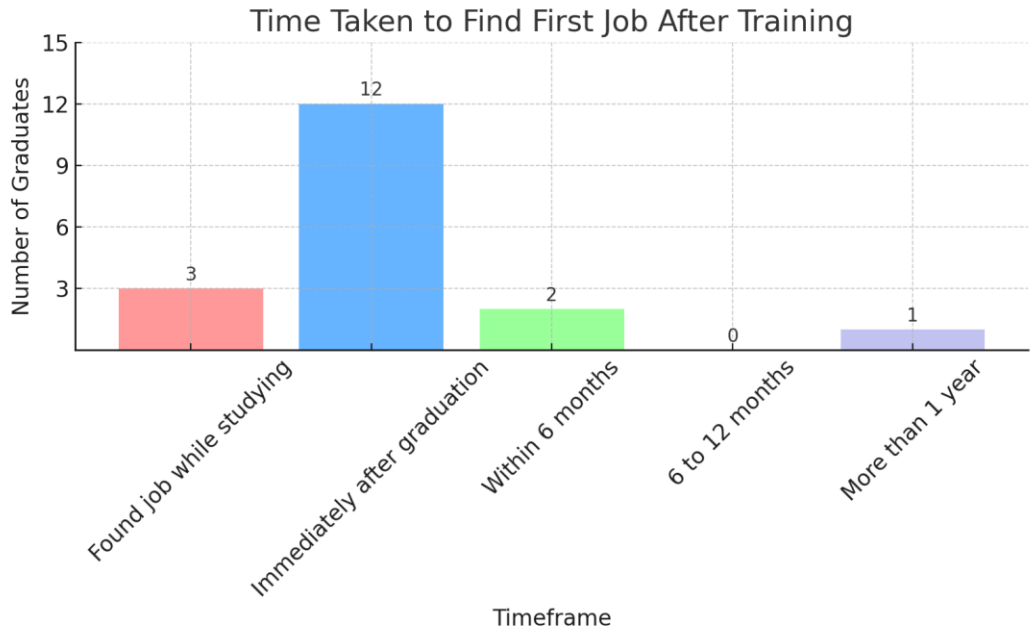

Figure 2: Time Taken to Find First Job After Completing Training

Out of the 18 employed graduates (considered as 100% for this analysis):

- **16.7%** of graduates found a job **while still studying**, indicating early placement opportunities and the value of skills acquired even before completing the program.
- **66.7%** secured employment **immediately after graduation**, showing the high relevance of the BTS Pre-Diploma in Mechanical Engineering training to market needs and employers' confidence in BTS graduates.
- **11.1%** found jobs **within six months**, which reflects a healthy short-term employability window and further emphasizes the effectiveness of the program.
- **5.5%** took **more than one year** to secure employment, indicating potential gaps in support systems for a small portion of graduates or specific individual circumstances.

The majority of graduates were able to transition smoothly from training to employment. This outcome reflects the high demand for mechanical engineering skills in the market and indicates that the curriculum is well-aligned with employer requirements. The small percentage of delayed employment could suggest the need for strengthened job placement support or targeted counseling services.

This pattern of instant employment after training is a strong indicator of the BTS program's effectiveness in preparing students for the workforce, particularly in the private and international job markets.

4.8 Job Finding Method

Among the 18 employed graduates of the BTS Pre-Diploma in Mechanical Engineering program, understanding how they secured their current employment provides insight into the effectiveness of institutional support and other job-seeking methods. The graduates reported various channels of employment acquisition, reflecting both structured and informal methods of job search.

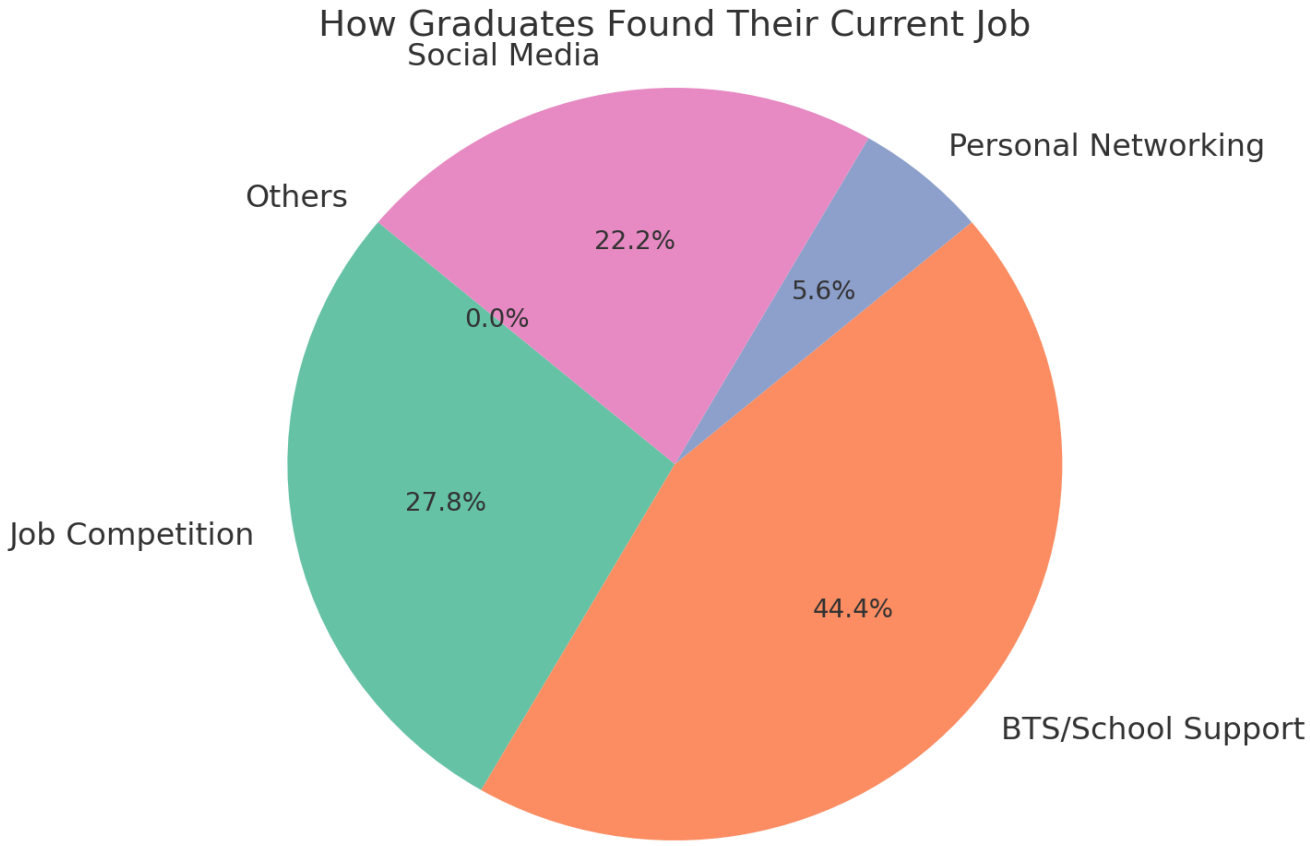

Figure 3: Job Finding Method

The most prominent method was **support from BTS/School**, accounting for **44.4%** of employed graduates. This indicates a strong institutional role in facilitating

employment, which is a positive reflection on the program's relevance and industry linkage. The guidance and proactive efforts of **Mr. Dhan Bahadur KC**, the Trade Head of the Pre-Diploma in Mechanical Engineering program, along with the dedicated **BTS faculty** have significantly contributed to these placements. Their coordinated efforts have helped connect graduates with employers and job opportunities effectively.

In contrast, **27.8%** of graduates obtained jobs through **open job competition**, which suggests that over one-fourth of graduates were able to compete in the broader job market without direct institutional help. This reflects well on the training quality and confidence level of the graduates in applying independently.

Social media played a notable role for **22.2%** of graduates, showing that digital platforms are becoming increasingly important in the job search process. This trend reflects modern shifts in recruitment practices and highlights the need for digital literacy and networking skills among students.

Only **5.6%** of graduates relied on **personal networking**, which, while a smaller figure, still underscores the value of informal connections in certain job sectors. No graduates reported using other unspecified methods.

In comparison, BTS-supported employment outnumbers all other individual methods and even surpasses the combined total of graduates who found jobs through social media and personal networks. This emphasizes that institutional involvement is currently the most reliable path to employment for BTS graduates.

4.9 Average Monthly Income of Employed Graduates

Among the 18 employed graduates of the BTS Pre-Diploma in Mechanical Engineering program, the distribution of monthly income varies, reflecting different career stages and job types. The income data suggests a clear pattern related to both the nature of employment and the level of experience.

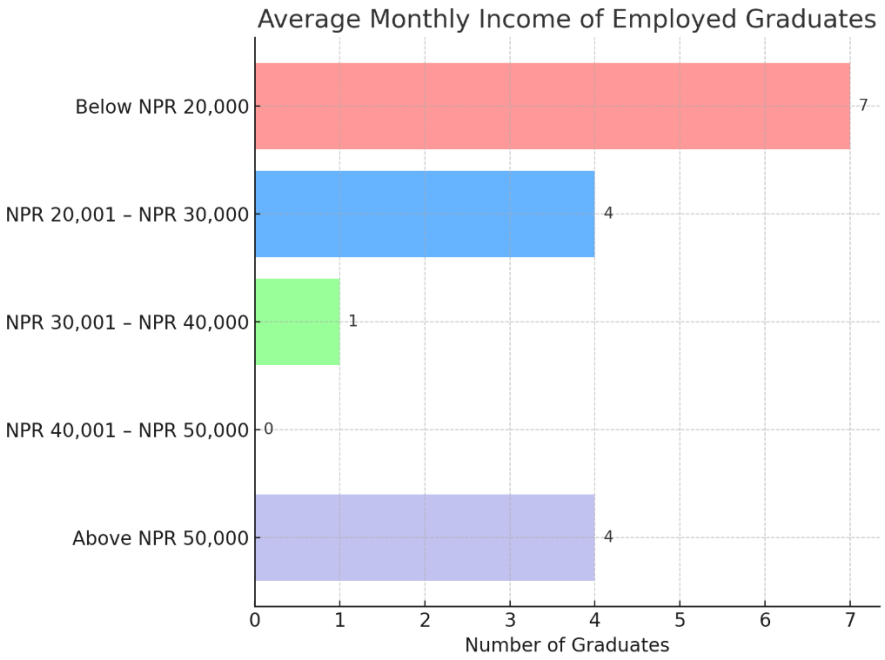

Figure 4: Average Monthly Income of Employed Graduates

Table 8: Average Monthly Income of Employed Graduates

Income Range	Number of Graduates	Percentage (%)
Below NPR 20,000	7	43.75%
NPR 20,001 – NPR 30,000	4	25%
NPR 30,001 – NPR 40,000	1	6.25%
Above NPR 50,000	4	25%
Total	**18**	**100%**

Among the 18 employed graduates of the BTS Pre-Diploma in Mechanical Engineering program, there is a clear variation in salary ranges that reflects both the level of experience and the sector they are engaged in. **43.75%** of graduates earn **below NPR 20,000**, primarily in entry-level roles where they are still in the process of gaining hands-on experience. These positions typically fall within the private sector, where salaries are lower initially, but with room for growth as experience increases.

25% of graduates earn between **NPR 20,001 and NPR 30,000**, which suggests they have accumulated a few years of experience or occupy more senior positions within their organizations. This range typically reflects moderate career growth, particularly within the private sector.

Another **25%** of graduates earn **above NPR 50,000**, predominantly in **foreign employment** or **self-employment**. This group enjoys higher income opportunities, which highlights the lucrative potential of international work or entrepreneurial ventures. The ability to earn a significant salary abroad or as a business owner is a notable outcome for graduates with specialized skills and an entrepreneurial mindset.

Finally, **6.25%** earn **between NPR 30,001 and NPR 40,000**, likely in **government positions** where salaries tend to be more stable but grow incrementally based on years of service. This range is reflective of the steady, structured salary growth seen in the public sector.

Overall, the salary distribution shows that while a large proportion of graduates start with lower earnings, opportunities for higher wages exist, particularly in self-

employment, foreign employment, or more experienced roles. The data highlights the broad spectrum of earning potential among graduates, from entry-level positions to highly rewarding international and entrepreneurial careers.

4.10 Skill Utilization in Current Job

The tracer study reveals that **100% of employed graduates** reported their skills acquired from BTS are **fully utilized** in their current jobs. This is a strong indicator of the **curriculum's alignment with industry demands** and the effectiveness of practical training provided at BTS.

Such complete skill utilization shows that the **training is not only relevant but also application-oriented**, equipping students with the exact competencies needed in real job environments. This high match also reflects positively on the **instructional methods, workshops, and lab practices** provided during the Pre-Diploma in Mechanical Engineering program.

Moreover, it suggests that **employers value BTS-trained graduates**, recognizing their readiness to perform technical tasks without requiring significant additional training. This could also be contributing to the high employment rate and satisfaction among graduates.

In conclusion, the full use of acquired skills demonstrates the **success of BTS's skill-based education model**, its responsiveness to labor market needs, and the confidence of graduates in applying what they've learned.

4.11 Practical Training Feedback

To assess the effectiveness of hands-on learning, graduates were asked to rate the quality of the practical training they received at BTS during their Pre-Diploma in Mechanical Engineering program. Their responses provide valuable feedback on how well the training prepared them for real-world work environments.

Table 9: Rating of Practical Training Provided at BTS

Rating	Number of Graduates	Percentage (%)
Excellent	8	44.4%
Good	6	33.3%
Average	3	16.7%
Poor	1	5.6%
Total	**18**	**100%**

T

The tracer study reveals that a **majority of graduates (77.7%) rated the practical training at BTS as either Excellent or Good**, indicating a generally high level of satisfaction with the hands-on learning experience. This positive perception supports the effectiveness of BTS's approach to skill-based education.

Only **16.7% rated the training as Average**, and **5.6% as Poor**, suggesting minor areas for improvement, potentially in equipment access, instructor involvement, or real-world project exposure. These ratings indicate that while the overall experience is appreciated, there is room to enhance practical delivery methods to better meet all learners' expectations.

The feedback highlights the importance of **continuous upgrading of training resources and regular industry interaction** to sustain and further improve the quality of technical education at BTS.

4.12 Most Helpful Aspects of the BTS Program

Graduates were asked to select the most helpful aspects of the BTS Pre-Diploma in Mechanical Engineering program. The data was gathered from 18 graduates, and each graduate could select multiple options.

Table 10: Most Helpful Aspects of the BTS Program

Aspect	Number of Graduates	Percentage (%)
Practical/lab work	14	77.78%
On-the-job training (OJT)	18	100%
Instructor support	12	66.67%
Curriculum content	5	27.78%
Peer learning	8	44.44%

Among the 18 graduates, **On-the-job training (OJT)** emerged as the most helpful aspect, with 100% of respondents selecting it. This highlights the value of real-world experience, where students can apply classroom knowledge directly in industry settings. **Practical/lab work** closely followed at 77.78%, further emphasizing the importance of hands-on skills in mechanical engineering.

Instructor support was also significant, with 66.67% of graduates finding it beneficial, underscoring the importance of mentorship in the learning process. **Peer learning** (44. 44%) and **curriculum content** (27.78%) were less prioritized,

suggesting that while collaboration and curriculum are helpful, they are secondary to practical experience and guidance.

Overall, the data suggests that graduates find **practical exposure** through OJT and lab work the most valuable, with **instructor support** playing a key role in their success.

4.13 Satisfaction with OJT Placement

In the tracer study, graduates were asked about their satisfaction with the On-the-Job Training (OJT) placement provided by BTS. The results reflect the effectiveness and relevance of the OJT experience in preparing students for real-world job environments. Below is a chart representing the responses from 18 graduates regarding their satisfaction with the OJT placement.

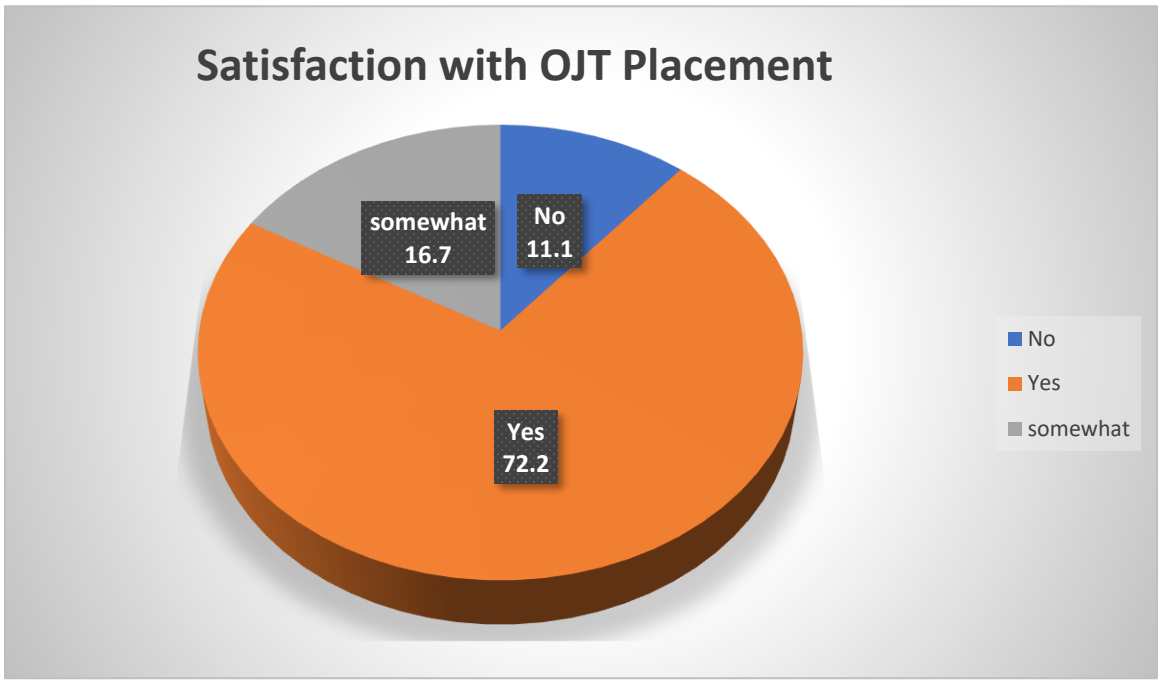

Figure 5: Satisfaction with OJT Placement

The data reveals that **72.2%** of the surveyed graduates reported being satisfied with their On-the-Job Training (OJT) placement. This strong majority reflects positively on the BTS Pre-Diploma in Mechanical Engineering program's ability to connect students with relevant, skill-enhancing work environments. It suggests that the majority of placements were aligned with the students' learning needs and career expectations, offering hands-on experience that complemented their classroom instruction.

However, **27.8%** of graduates expressed either dissatisfaction (**16.7%**) or partial satisfaction (**11.1%**). This indicates that while the system works well for most, there are still gaps to be addressed. These may include mismatches between student interest and placement type, lack of mentorship during the OJT, or insufficient coordination with host organizations.

This mix of responses highlights the importance of strengthening BTS's collaboration with industry partners, providing structured supervision during placements, and collecting regular feedback. By refining the OJT process, BTS can work toward ensuring a consistently high-quality experience that benefits all students.

4.14 Requirement of Additional Training After BTS

To assess the adequacy of the BTS Pre-Diploma in Mechanical Engineering program in preparing graduates for real-world work environments, graduates were asked whether they required any additional training after completing their studies. This helps to evaluate how effectively the skills and knowledge imparted by BTS align with actual job requirements in the field.

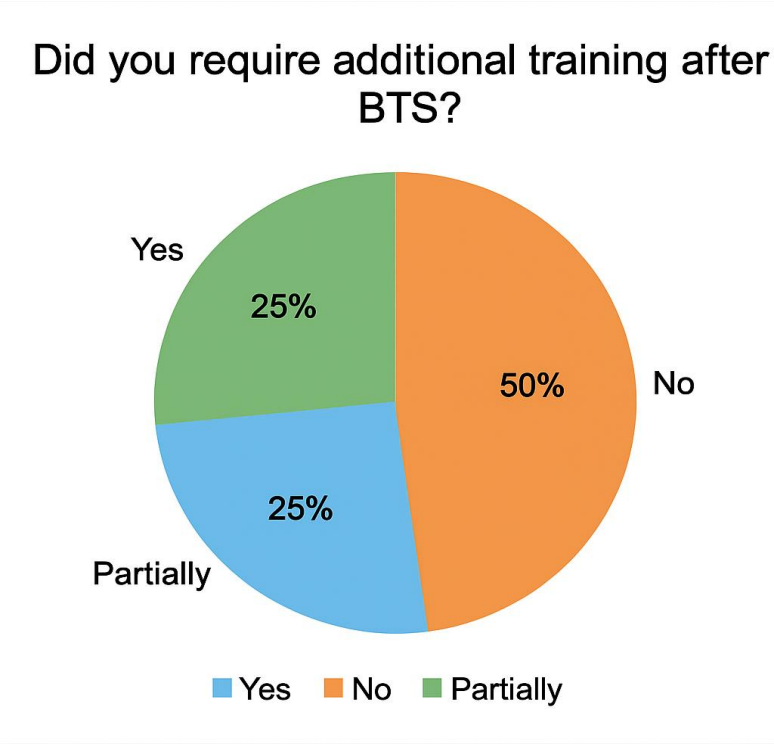

Figure 6: Requirement of Additional Training After BTS

The data reveals that 25% of graduates felt the need for additional training after completing their studies at BTS, while 50% reported they did not require any further training to perform their job well. The remaining 25% of graduates indicated that they required some additional training to fully meet the demands of their jobs.

This suggests that for half of the graduates, the skills and knowledge gained during their training at BTS were sufficient for their job roles, showcasing the effectiveness of the program. However, the 25% who indicated partial need for further training and another 25% who felt they required additional training highlight potential areas where BTS could enhance its curriculum or provide more comprehensive training.

The fact that a significant portion (50%) did not feel the need for additional training shows that the program is equipping graduates with relevant skills. Nonetheless, the 25% who felt the need for partial or full additional training could provide

insights into areas where the practical application or depth of training could be further developed to meet evolving industry standards and job expectations.

4.15 Challenges Faced by Graduates in Employment

According to the responses from the graduates, all of them have secured employment, but several challenges were still encountered when applying their skills in the workplace or during the process of securing a job.

A common challenge faced by the graduates was the transition from training to actual work. Despite the solid foundation in mechanical engineering skills acquired at BTS, some graduates reported a gap between the practical skills learned during training and the technical requirements of their jobs. As a result, they found themselves adapting to real-world demands that were sometimes more advanced or specialized than their initial training had prepared them for.

Another challenge identified was the competitive nature of the job market. Although all graduates secured jobs, some faced difficulties finding positions directly related to their field of study. For those entering the private sector, certain job roles required additional certifications or specialized knowledge that was not fully covered during their training at BTS. This led some graduates to take up jobs that were not perfectly aligned with their skill set, at least initially.

Additionally, some graduates mentioned that while they had gained technical skills, there was still a need to develop further on-the-job skills, such as effective communication, teamwork, and time management. These soft skills were essential to excel in their roles and adapt to workplace environments.

Despite these challenges, the overall sentiment was positive. The skills gained at BTS, coupled with the support provided by the school in securing jobs, helped graduates navigate and overcome these hurdles. The majority of the graduates felt that with more time and experience, they would be able to fully apply their training and overcome the initial challenges they faced in the job market.

4.16 Satisfaction with the Training Received at BTS

Understanding graduate satisfaction is essential to evaluate the overall effectiveness of the training provided by BTS. As part of the tracer study, graduates were asked to rate their level of satisfaction with the training they received during the Pre-Diploma in Mechanical Engineering program. Their responses offer valuable insights into how well the program met their expectations and prepared them for employment or further studies. The distribution of satisfaction levels is presented in the chart below.

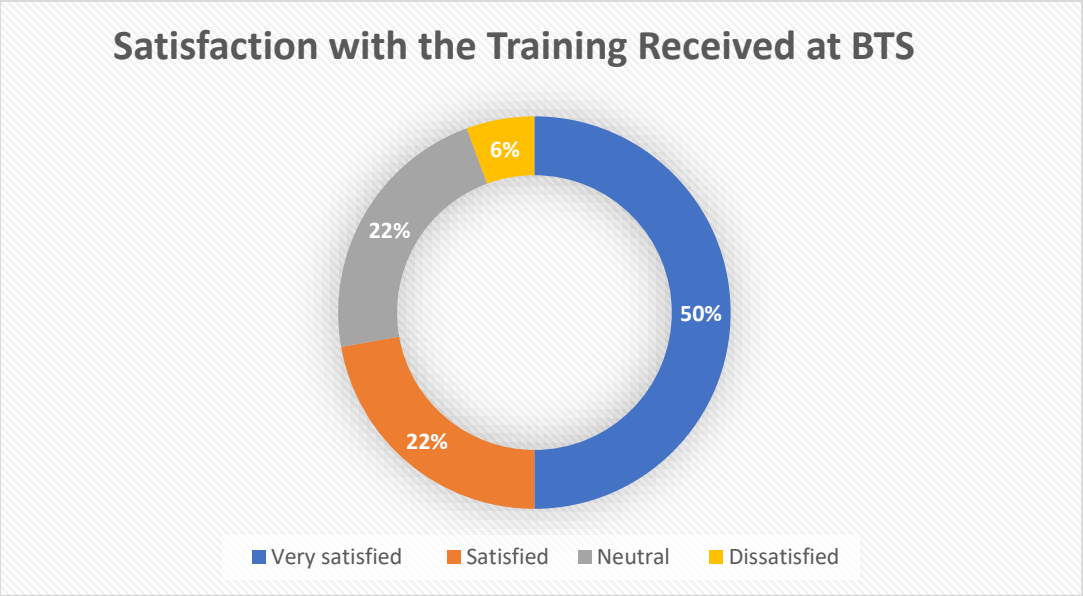

Figure 7:Satisfaction with the Training Received at BTS

The chart shows that **50% of the graduates are very satisfied** with the training they received at BTS, while **22.2% are satisfied**, reflecting a strong overall approval of the program. An additional **22.2% responded as neutral**, which may suggest areas for improvement or unmet expectations in certain aspects of the training. Only **5.6% of graduates reported dissatisfaction**, indicating that very few found the training inadequate.

This high level of satisfaction—over 70% expressing satisfaction or high satisfaction—indicates that the BTS Pre-Diploma in Mechanical Engineering program is effectively meeting the learning and practical needs of most students. However, the presence of neutral and dissatisfied responses suggests there is still room to enhance specific components such as course delivery, practical exposure, or post-training support.

4.17 Instructor Preparedness and Support

The quality of instruction is a crucial factor in determining the effectiveness of any training program. To assess this, graduates were asked whether the instructors at BTS were well-prepared and supportive.

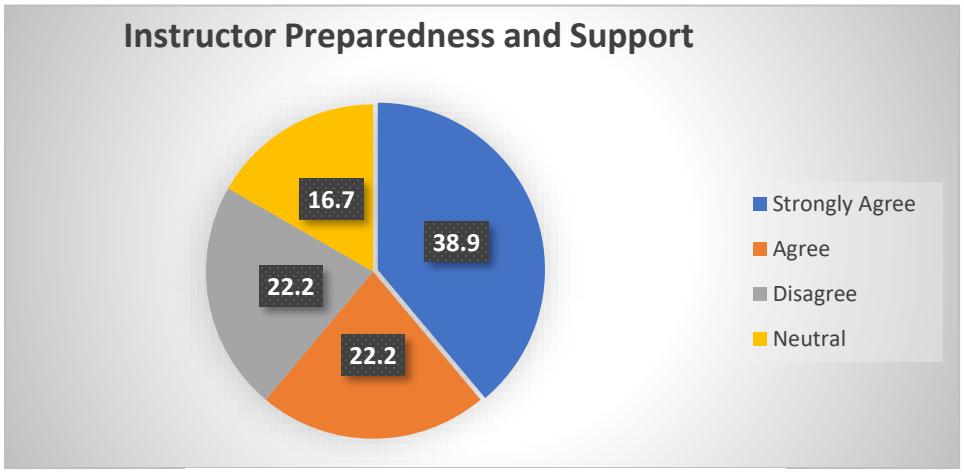

Figure 8:Instructor Preparedness and Support

A majority of graduates **(38.9%) strongly agreed** that the instructors were well-prepared and supportive, while **22.2% agreed**, indicating positive perceptions of faculty quality. However, **22.2% remained neutral**, possibly reflecting inconsistent experiences. Notably, **16.7% disagreed**, suggesting a need for improved instructor engagement or preparation in some cases.

This data shows that over 60% of the graduates had a favorable impression of BTS instructors, reinforcing the program's strengths in teaching. However, the relatively high percentage of neutral and negative responses also highlights the importance of continuous professional development and feedback systems for faculty to ensure consistency in student experience.

4.18 Rating of School's Equipment and Lab Facilities

To evaluate the adequacy of practical resources at BTS, graduates were asked to rate the school's equipment and laboratory facilities. Their feedback reflects how well the hands-on components of the Pre-Diploma in Mechanical Engineering program support skill development and real-world application. The percentage distribution of their ratings is shown in the chart below.

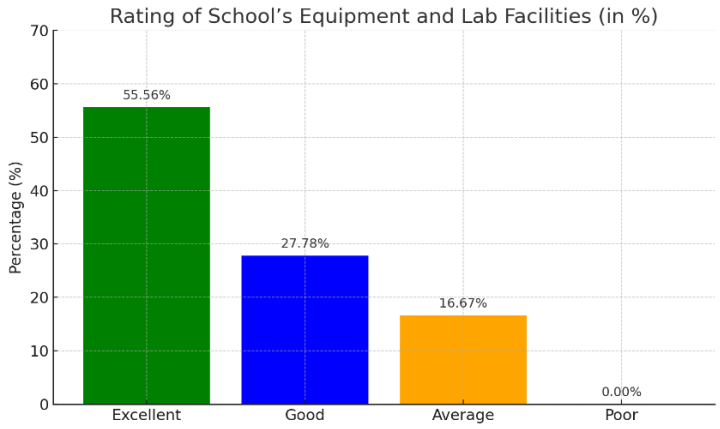

Figure 9: Rating of School's Equipment and Lab Facilities

The chart shows that **55.6%** of graduates rated the equipment and lab facilities as **Excellent**, and **27.8%** rated them as **Good**, indicating that over **83%** of respondents are satisfied with the practical resources provided. A smaller group (**16.7%**) found them **Average**, suggesting room for enhancements in certain areas—perhaps updating machinery or increasing access during peak usage times. Notably, no one rated the facilities as **Poor**, underscoring BTS's success in maintaining a solid practical learning environment. Overall, this positive feedback highlights the strength of BTS's hands-on infrastructure while pointing to opportunities for continuous improvement.

4.19 Alignment of Curriculum with Current Job Market

To assess how well the BTS Pre-Diploma in Mechanical Engineering curriculum matches industry expectations, graduates were asked whether the skills and knowledge they gained align with current job market demands. Their responses provide insight into the relevance of course content and highlight areas for further curriculum enhancement. The percentage distribution of their ratings is illustrated in the chart below.

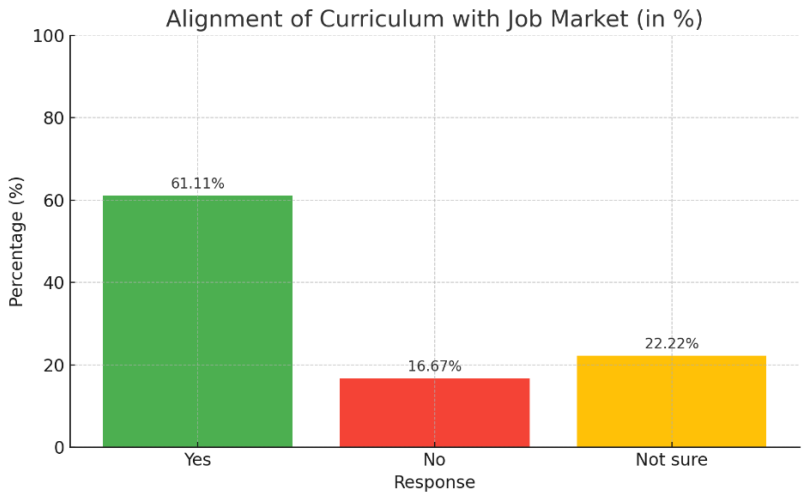

Figure 10: Alignment of Curriculum with Current Job Market

The chart indicates that **61.11%** of graduates believe the curriculum is well aligned with the current job market, demonstrating strong overall relevance. However, **38.89%** of respondents are either unsure or feel there are gaps—**16.67%** explicitly stating misalignment and **22.22%** expressing uncertainty. This highlights that while the majority find the program appropriately targeted, a significant minority perceives room for improvement. To address this, BTS may consider regular curriculum reviews, industry consultations, and the integration of emerging technologies to ensure all graduates feel fully equipped for today's technical demands.

4.20 Career Guidance and Placement Support

To understand the extent of institutional support provided to graduates in their job search, respondents were asked whether BTS offered career guidance or job placement assistance. This feedback highlights the role of the school's career services and its impact on graduate employment outcomes. The chart below illustrates the responses.

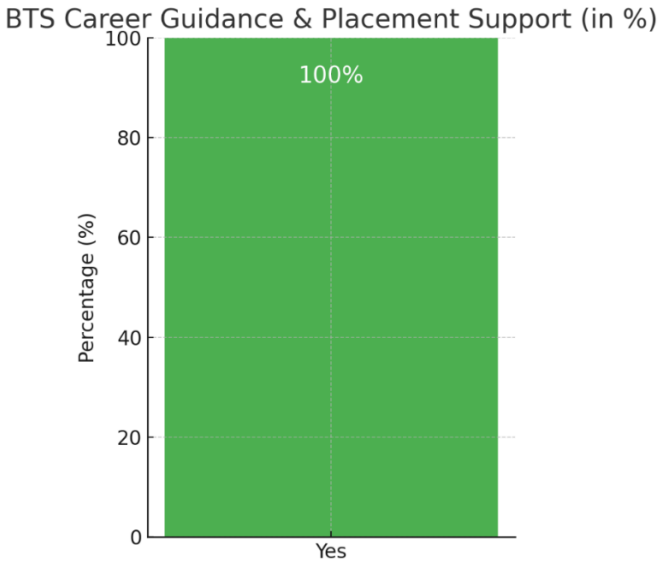

Figure 11:Career Guidance and Placement Support

The chart clearly shows that **100% of the graduates** received career guidance or placement support from BTS. This universal provision highlights the institution's commitment to student success beyond the classroom, ensuring every graduate benefits from counseling, job search resources, and industry linkages. Such comprehensive support is a key factor in the high employment and satisfaction rates observed among BTS alumni.

4.21 Graduate Suggestions for Program Improvement

To identify areas for program enhancement, graduates were asked to select which improvements they would most like to see at BTS. Multiple responses were allowed, capturing a range of priorities from curriculum updates to technology integration. The percentage of graduates endorsing each suggestion is illustrated in the chart below.

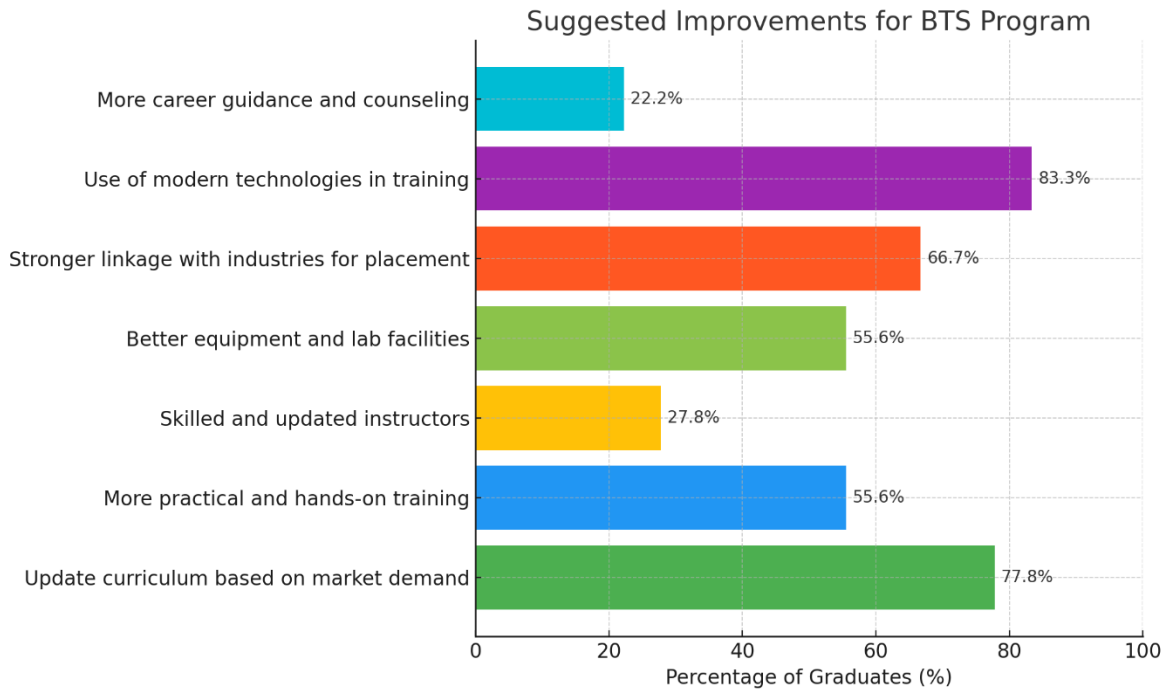

Figure 12: Graduate Suggestions for Program Improvement

Graduates clearly prioritize **curriculum relevance** and **technology integration**, with **83.3%** of respondents calling for both updated market-driven curricula and the use of modern training technologies. This dual emphasis suggests that while foundational course content must evolve alongside industry trends, the methods and tools for teaching need to reflect current professional practice. The next highest priority, **stronger industry linkages for placement** (66.7%), underlines the importance of practical connections that can translate learning directly into employment.

Half of the graduates (55.6%) also stressed the need for **more hands-on training** and **better equipment and lab facilities**, reinforcing that experiential learning environments remain essential for skill mastery. Although **skillful, up-to-date instructors** (27.8%) and **enhanced career counseling** (22.2%) were less frequently mentioned, these areas still emerged as significant contributors to a well-rounded educational experience.

Overall, the feedback points to a clear strategy for BTS: continually refresh course content to meet emerging market needs, integrate cutting-edge technologies into teaching, and deepen partnerships with industry—all while maintaining robust hands-on training and strengthening support services to maximize graduate employability.

4.22 BTS Recommendation Feedback

To assess the perceived value of the training received at BTS, graduates were asked whether they would recommend the institution to others seeking technical education. This reflects their overall satisfaction and the impact of their training

experience.

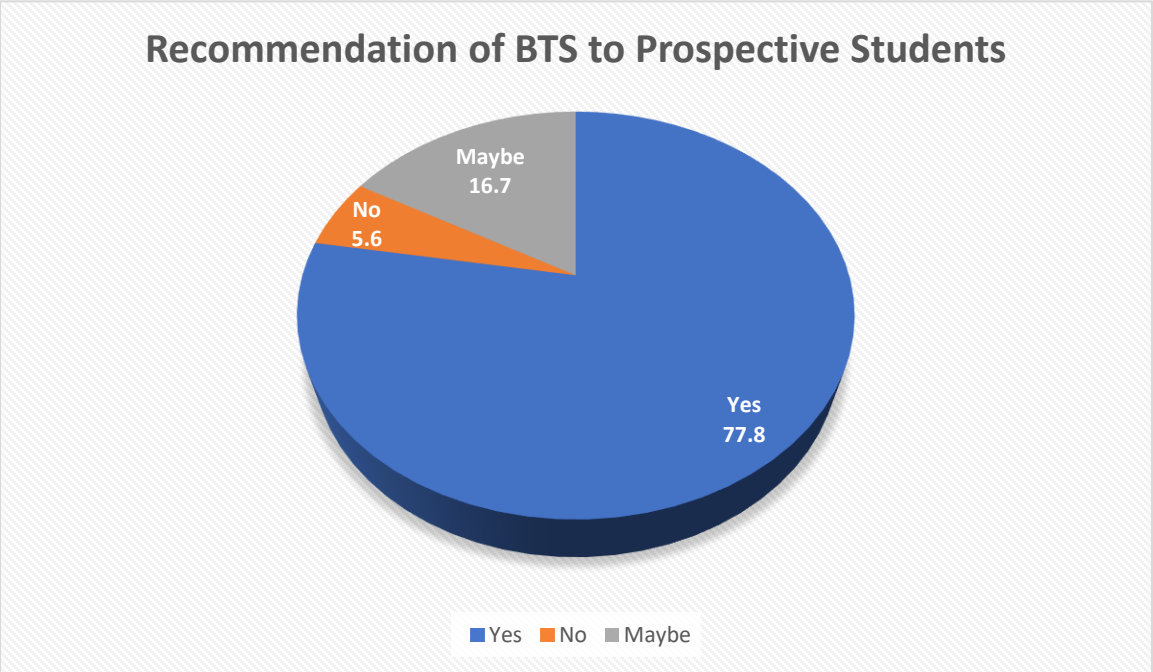

Figure 13: BTS Recommendation Feedback

The data indicates that a large majority of graduates (77.8%) are willing to recommend BTS to others seeking technical education, reflecting strong satisfaction with the training and support received. A smaller proportion (16.7%) responded with "Maybe," suggesting a generally positive experience with some reservations. Only 5.5% of respondents stated they would not recommend BTS, indicating a minimal level of dissatisfaction. Overall, the results suggest that most graduates hold a favorable view of the institution and its training programs.

4.23 Additional Comments and Recommendations

Based on the comprehensive feedback provided by graduates of the Pre-Diploma in Mechanical Engineering program, it is evident that Bheri Technical School (BTS) has made significant contributions to equipping students with essential technical skills and practical knowledge. Graduates have expressed high levels of satisfaction

with the quality of training, particularly highlighting the effectiveness of On-the-Job Training (OJT), the supportiveness of instructors, and the school's active role in facilitating employment opportunities. The involvement of department head Mr. Dhan Bahadur KC, along with the commitment of BTS faculty and staff, has been highly appreciated by the graduates in supporting job placements and career development.

While acknowledging the strengths of the program, graduates have also provided constructive suggestions to enhance its effectiveness further. Key recommendations include updating the curriculum to reflect evolving market demands, enhancing the use of modern technology in training, strengthening industry linkages, and upgrading laboratory and equipment facilities. Additionally, graduates recommend continued focus on practical learning and expanding career counseling services.

Overall, the feedback reinforces that BTS has established itself as a reputable institution for technical education. The graduates' recommendations serve as valuable insights for ensuring continuous improvement and sustaining the relevance and impact of the training provided.

CHAPTER 5- Conclusions and Recommendations

5.1 Conclusions

This tracer study of the Pre-Diploma in Mechanical Engineering graduates from Bheri Technical School (BTS) aimed to assess their current employment status, the relevance of training received, and their satisfaction with the overall program. Based on the responses of 24 graduates, the following conclusions can be drawn:

- **High Employment Rate**: A significant majority of the graduates (75%) are employed, with many working in the private sector, foreign employment, or self-employment.
- **Strong Link Between Training and Employment**: 94% of the employed graduates reported that their jobs are directly related to the skills they gained at BTS.
- **Effective Institutional Support**: Graduates acknowledged the instrumental role played by BTS—especially the efforts of the department head and faculty—in job placement and career support.
- **Practical Training Highly Valued**: OJT, lab work, and instructor guidance were identified as the most helpful components of the program.
- **Satisfaction with Training**: Most graduates expressed satisfaction with the training and facilities, although there remains room for improvement in technology, industry linkage, and equipment.
- **Need for Curriculum Update**: Many respondents suggested aligning the curriculum more closely with current job market demands.

5.2 Recommendations

Based on the findings of this tracer study, the following practical and targeted recommendations are suggested to further strengthen the quality, relevance, and impact of the Pre-Diploma in Mechanical Engineering program at BTS:

- **Revise and Modernize the Curriculum:** With over 58% of graduates suggesting updates to the curriculum, it is essential to integrate market-driven content and emerging technologies. Regular feedback from industries and graduates should inform curriculum reviews to ensure relevance and employability.

- **Enhance Use of Modern Training Tools and Technologies:** As the most common suggestion (from 83% of respondents), incorporating modern technologies into classroom and practical training will better prepare students for real-world challenges. This includes the introduction of simulation tools, digital platforms, and automation-based modules.

- **Enhance Practical Training Opportunities:** Graduates have consistently emphasized the importance of hands-on experience, particularly through OJT and lab work. Strengthening these opportunities with industry-relevant tasks and modern equipment will better equip students for real-world challenges. Continuous feedback and improved training quality will boost both skill application and confidence, ensuring students are job-ready and well-prepared for their careers.

- **Upgrade Equipment and Lab Facilities:** More than half of the respondents rated facilities as good or excellent, but 55% still suggested improvements.

Investing in updated, industry-standard machinery and tools will bridge the gap between training and actual workplace demands.

- **Deepen Linkages with Industry for Placement:** With 67% of respondents recommending stronger industry collaboration, BTS should expand its partnerships for OJT, internships, plant visits, and direct job placements. This can be facilitated through formal MoUs (Memorandums of Understanding) and alumni networking.

- **Continue and Enhance Career Support Services:** All respondents confirmed that BTS provided job placement or career guidance support. Sustaining this effort—through job fairs, employer sessions, CV/interview preparation, and follow-up counseling—will keep improving employment outcomes.

- **Strengthen Instructor Training and Professional Development:** While instructors were generally rated positively, some responses indicated a need for up-to-date knowledge and modern teaching methods. Regular training, exposure visits, and involvement in industry projects will enhance teaching effectiveness.

- **Offer Additional Training and Upskilling Options:** Since 50% of graduates required additional or partial training after BTS, short-term modular or refresher courses could be offered to bridge specific skill gaps and respond to changing job market needs.

- **Promote Career Awareness and Motivational Support:** Given the positive feedback and high satisfaction levels, more awareness campaigns, orientation programs, and peer testimonials can encourage new students to pursue technical training with confidence.

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ANNEXES

Annex 1: Tracer Study Questionnaire

Bheri Technical School (BTS)

Tracer Study Questionnaire for Graduates of Pre-Diploma in Mechanical Engineering

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🗓️ General Information

1. Full Name of the Graduate: ……..
2. Year of Graduation: ……
3. Gender:
   - ☐ Male
   - ☐ Female
   - ☐ Other
4. Contact Number: ……
5. Current Address (Municipality/Rural Municipality, Ward, District):……

📈 Educational and Training Status

6. Are you currently enrolled in any further education or training?
   - ☐ Yes
   - ☐ No
7. If yes, specify the program and institution:
   (e.g., Diploma in Mechanical Engineering – XYZ Institute)
8. What level of education are you currently pursuing?
   - ☐ Diploma
   - ☐ Bachelor's Degree
   - ☐ Public Service Commission preparation
   - ☐ Other: _____

💼 Employment Status

9. What is your current employment status?
   - Employed
   - Self-employed
   - Unemployed
   - Volunteer

10. What is the nature of your current job?
   - Government Job
   - Private Sector
   - I/NGO
   - Own Business
   - Foreign Employment
   - Other (please specify): _____

11. Is your current job related to the TVET training you received at BTS?
   - Yes
   - No

12. How long did it take to find your first job after completing the training?
   - Found job while studying
   - Immediately after graduation
   - Within 6 months
   - 6 to 12 months
   - More than 1 year

13. How did you find your current job?
   - Through job competition
   - Through BTS/School support
   - Personal networking
   - Social media
   - Others (specify): _____

14. What is your average monthly income?
    - ☐ Below NPR 20,000
    - ☐ NPR 20,001 – NPR 30,000
    - ☐ NPR 30,001 – NPR 40,000
    - ☐ NPR 40,001 – NPR 50,000
    - ☐ Above NPR 50,000

📝 Skill Application & Workplace Experience

15. To what extent are the skills gained from BTS being used in your current job?
    - ☐ Fully used
    - ☐ Partially used
    - ☐ Not used
16. How would you rate the practical training provided at BTS?
    - ☐ Excellent
    - ☐ Good
    - ☐ Average
    - ☐ Poor
17. Which aspects of BTS training were most helpful? (Select all that apply)
    - ☐ Practical/lab work
    - ☐ On-the-job training (OJT)
    - ☐ Instructor support
    - ☐ Curriculum content
    - ☐ Peer learning
    - ☐ Others: _____
18. Were you satisfied with the OJT (On-the-Job Training) placement?
    - ☐ Yes
    - ☐ No
    - ☐ Somewhat

19. Did you require additional training after BTS to perform your job well?

- ☐ Yes
- ☐ No
- ☐ Partially

20. What challenges did you face during or after training in terms of employment or skill application?

📅 Feedback and Perception

21. How satisfied are you with the training you received at BTS?

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Neutral
- ☐ Dissatisfied

22. Were the instructors at BTS well-prepared and supportive?

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree

23. How do you rate the school's equipment and lab facilities?

- ☐ Excellent
- ☐ Good
- ☐ Average
- ☐ Poor

24. Was the curriculum aligned with the current job market?

- ☐ Yes
- ☐ No
- ☐ Not sure

25. Did BTS provide you with career guidance or job placement support?

- ☐ Yes
- ☐ No

📅 Recommendations for Improvement

26. What suggestions do you have for improving the BTS program? (multiple answers allowed)

- ☐ Update curriculum based on market demand
- ☐ More practical and hands-on training
- ☐ Skilled and updated instructors
- ☐ Better equipment and lab facilities
- ☐ Stronger linkage with industries for placement
- ☐ Use of modern technologies in training
- ☐ More career guidance and counseling

27. Would you recommend BTS to other students seeking technical training?

- ☐ Yes
- ☐ No
- ☐ Maybe

28. Any additional comments or recommendations?