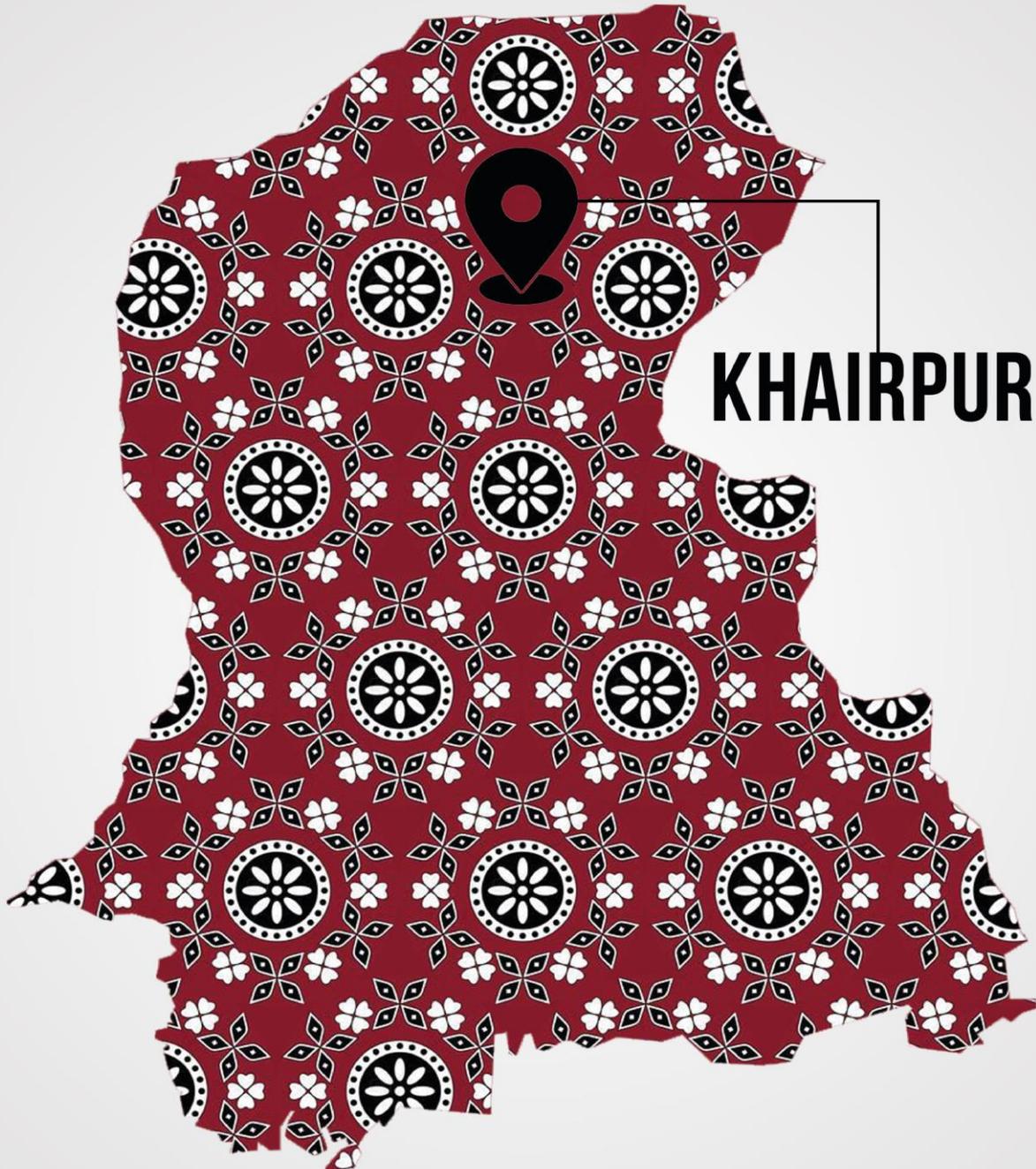


THIRD-PARTY EVALUATION

BBSHRRDB SPONSORED TRAINING PROGRAM AT ATIN – NLC, JULY 2019 - JANUARY 2020



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Acronyms

ATIN	Applied Technologies Institute NLC
BBSHRRDB	Benazir Bhutto Shaheed Human Resource Research and Development Board
CBT	Competency-Based Training
HMO/ HCMO	Heavy Construction Machinery Operator
HSSC	Higher Secondary School Certificate
HTV	Heavy Transport Vehicle
NAVTTTC	National Vocational and Technical Training Commission
NLC	National Logistics Cell
PMU	Project Management Unit
SBTE	Sindh Board of Technical Education
SSC	Secondary School Certificate
TEVTA	Technical Education and Vocational Training Authority
ToR	Terms of References
TVET	Technical and Vocational Education and Training

EXECUTIVE SUMMARY

Youth is the demographic dividend of a country. Pakistan is blessed with a 29 percent population in the age bracket of 15 to 24 years (Pakistan Bureau of Statistics, 2018), and this places it in the list of countries with the highest proportions of the young population. The paradigm shift in global dynamics, during the past two decades, has triggered worldwide technological impulsiveness and industrial growth, and resultantly created a huge room for skill-building in employable domains to meet the corresponding demand for smart and technically sound human resource. To fruitfully capitalise on this potential, it is of prime importance to equip the youth of Pakistan with contemporary skillsets commensurate to the market that shall contribute to the country's growth in multiple aspects.

The youth skills development project sponsored by the Benazir Bhutto Shaheed Human Resource Research and Development Board (BBSHRRDB), Universities and Boards Department, Government of Sindh was conducted at Applied Technologies Institute NLC (ATIN), Khairpur - *a training institute of the National Logistics Cell, (NLC)*, from July 2019 to January 2020. It is a substantial step forward in the sellable technical skillset development of the youth. This well-thought-out, enlightened and timely project, with multi-dimensional effects, has significantly contributed to the skills' need, poverty alleviation, and livelihood of the pass-outs. The project was aimed at providing free of cost skills' training to the unemployed and under-employed youth to make them more productive for themselves and the country.

The six (06) core objectives of this post-project third-party evaluation encompass validation of tutors, curriculum, training delivery, training completion, certification, and attainment of a minimum of 40% employment. The project was entrusted to M/s Agile Consulting (Private) Limited which carried out an independent post-project assessment. At the end of February 2021, a PMU was established for the third-party evaluation of the project in the office of M/s Agile Consulting (Private) Limited from where the relevant activities were coordinated in addition to keeping liaison with the ATINs headquarter at Sowan Camp, Rawalpindi, Pakistan.

All the six (06) core objectives were thoroughly validated by utilising the data science tools and techniques. The data was collected from principal, tutors, and the trainees through the structured, well-designed, and duly approved questionnaires.

During this 06-months project, 300 trainees were enrolled in 7 different trades i.e. Building Electrician, Plumber, Auto Mechanic, Auto Electrician, Welding (Arc & Gas), HTV Driving, and Heavy Construction Machinery Operator. All of the 300 trainees got passed out and certified within the due course of time. All the trainees and principal were satisfied with the tutors who

followed the pre-defined curriculum during the training delivery and assessment. It was found that 43.6% of the pass-out trainees had employment in different sectors i.e Government Job (2.3%), Private Job (31%), and Self-Employment/ Own Business (10.3%). ATIN Khairpur was found to be duly affiliated with the Sindh Board of Technical Education (SBTE).

The thorough validation revealed that the project had successfully achieved all of its prime objectives. It was found that the tutors had possessed required experience & qualifications and procedure of their employment was duly followed. The curriculum of the program/ syllabus was recognized by NAVTTC and TEVTA. It was found that the training delivery was very effective at the institute because the lesson plans, and assessments were made according to the requirements of the program, and the training certificates were provided to the pass outs at the completion of the training. All these findings were triangulated by validating the responses of the principal and the tutors through the responses of the trainees. Therefore, it can be concluded that the institute duly followed almost all of the important aspects of the program. However, as with all assessments, this assessment carries some limitations due to which it is recommended to further enhance the program objectives at a higher level according to the industry benchmarks. To increase the efficiency and effectiveness of the future endeavours, it is suggested to take certain measures like conducting process evaluation studies, updating demand-driven trades, increasing the number of offered trades, and validating all the aspects of training in an impact evaluation assessment.

1. INTRODUCTION

We are living in the age of globalization and technological impulsiveness where skill building is an important instrument to increase the efficacy and quality of labour for improved productivity and economic growth of a country. Also, it is a powerful tool to empower individuals and improve their social acceptance.

Taking cognizance of this reality, a youth skills development training project was launched at ATIN, Khairpur from July 2019 to January 2020 for imparting employable skills to youth. The project, encompassing the training of 300 pass-outs, was sponsored by the BBSHRRDB, Universities and Boards Department, Government of Sindh.

1.1. Objectives of the Study

The prime objective of this post-project study is to evaluate different aspects of the above-mentioned skills development project. The aspects include information about tutors/ trainers, curriculum, training delivery, training completion, certification, and employment status. The details are mentioned in Table 1.

Table 1: Objectives of The Study

S. #	Particulars	Details
1	Validation of Tutor	Checking and verifying the tutors' qualification/ experience/ procedure for employment
2	Validation of Curriculum	Checking and verifying the curriculum as per the recognised syllabus i.e. NAVTTC/ TEVTA
3	Validation of Training Delivery	Checking and verifying the training delivery to the trainees as per the MoU
4	Validation of Training Completion	Checking and verifying the training completion for example duration of the training, attendance, the number of passed out students, distribution of certificates, etc.
5	Validation of Certification	Checking and verifying the Institute's affiliation with the Sindh Board of Technical Education (SBTE)
6	Validation of at least 40 Percent Employment	Checking and verifying if at least 40 percent of the Institute's trainees in this program are employed or not.

1.2. Scope of The Project

The project's scope relevant to the objective of the study is mentioned in Table 2.

Table 2: Relevant Scope of the Project - Phase-IV

Particulars	Details
Enrolments (Trainees)	300
Targeted Gender	Male
Institute	ATIN Khairpur
Sponsor	BBSHRRDB
Number of Trades	7
Geographical Coverage	Khairpur District, Sindh Province, Pakistan
Age Limit of Trainees	18-36 years
Entry Qualification of Trainees	Minimum Middle Qualified

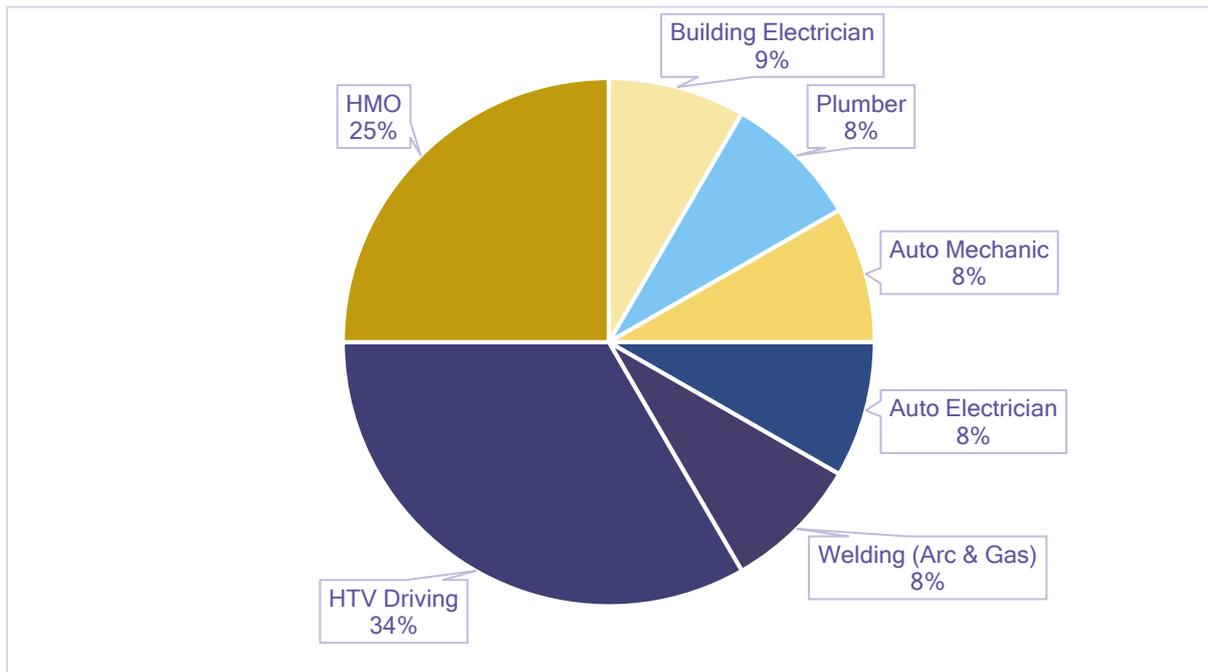
1.3. Detailed List of Trades

The list of trades with the corresponding details i.e. batch(es), number of trainees, and course duration as per the MoU are given Table 3 and Figure 1.

Table 3: List of Trades

S. #	Trade	Duration	No. of Batches	No. of Trainees
1	Building Electrician	6 Months	1	25
2	Plumber	6 Months	1	25
3	Auto Mechanic	6 Months	1	25
4	Auto Electrician	6 Months	1	25
5	Welding (Arc & Gas)	6 Months	1	25
6	HTV Driving	6 Months	1	100
7	Heavy Construction Machinery Operator	6 Months	1	75
Total				300

Figure 1: Trainees' Trade-Wise Distribution



1.4. Structure of the PMU

At the end of February 2021, a PMU was established for the third-party evaluation of the project in the office of Agile Consulting (Pvt.) Ltd. from where the relevant activities were coordinated in addition to keeping liaison with the ATINs headquarter at Sowam Camp, Rawalpindi, Pakistan. The core team was comprised of three (03) members.

Mr. Adeel Ahmad Shahid	Dr. Muhammad Munir	Engr. Javed Malik
<ul style="list-style-type: none"> • Management Consultancy • Technical Writing 	<ul style="list-style-type: none"> • Data Collection • Data Analysis 	<ul style="list-style-type: none"> • Advisory Services • TVET Expert

Data reporting was made to the in-charge ATINs through the coordination office at the ATINs headquarter.

2. METHODOLOGY

Every study uses a specific research methodology to achieve a set of objectives for testifying the hypothesis and to answer the research questions. The quality of data collected from the respondents solely depends upon the enumerators and the quality of results depends upon the methodology used by the study. The methodology covers different aspects of data such as data collection method, important measures used, population, sample size and selecting proper statistical tests, other tools for data analysis and the interpretation of results. The following section portrays these elements of the methodology used for the current study.

2.1. Population

The population of the process evaluation study included principal, tutors/ teachers, and trainees. Input provided by these stakeholders was mandatory for the current study because they were directly involved and engaged in the project. Three (03) separate approved questionnaires - attached as **Annexure**, were used to gather the data from these stakeholders.

2.2. Sample Size Determination and Reliability

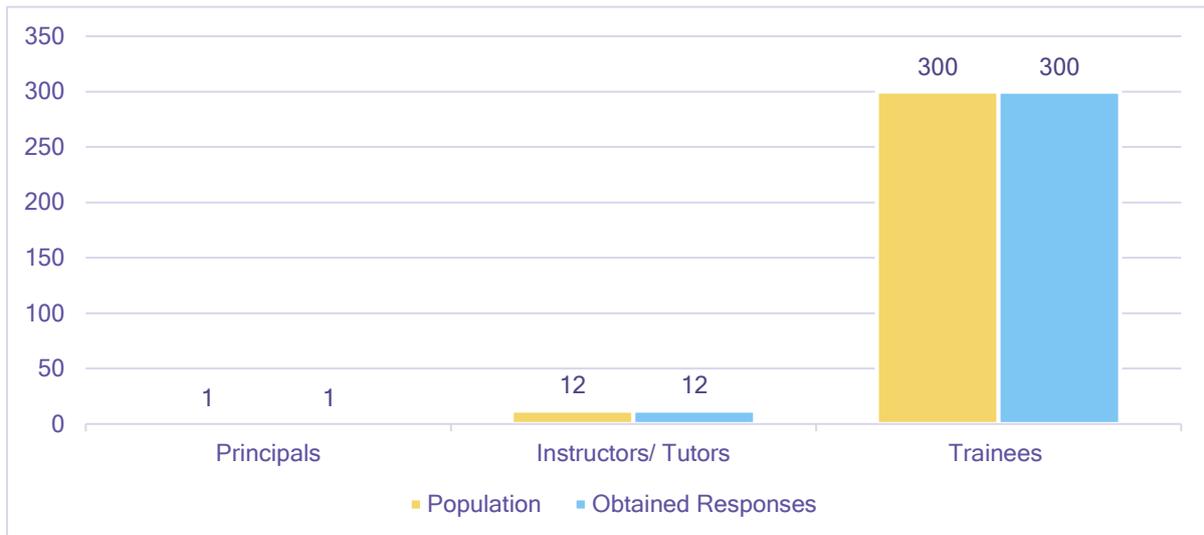
Sample size determination is always a critical part of the research design for any study. To gain data reliability, the appropriate sample size was needed to be selected by accurate calculation before the data collection. The current study was survey in its nature and involved estimation of frequencies and arithmetic mean (average responses) of their recent experience of the training project. As the data (principals, teachers/ instructors, and trainees) was not big enough, therefore; the whole population (100% sample) was targeted for data collection.

The resultant response rates are provided in Table 4 and Figure 2.

Table 4: Data Size

Stakeholder	Population	Responses Obtained	Responses Obtained %
Principals	1	1	100
Instructors/ Tutors	12	12	100
Trainees	300	300	100
Total	313	313	100

Figure 2: Data Size



The data reliability was not an issue in this study because the whole population data was analysed rather than sampling.

2.3. Validity

During the development of measurement scales/ questionnaires, seven (07) types of validities were considered critical. It was confirmed that constructs accurately represent the reality (**Construct Validity**), various simultaneous measures (questions) of the same construct correlated each other (**Convergent Validity**), causal relationships were ensured to be determined (**Internal Validity**), determination of any (exploration) possible relationship was ensured (**Conclusion Validity**), **Face Validity** (Looks like it'll work) was ensured, correlation with standards was ensured by providing appropriate references from statistical and data analysis studies (**Criterion Validity**), and most importantly, the **External Validity** was ensured so that the conclusions drawn based on results could be generalized.

2.4. Statistical Tools and Software

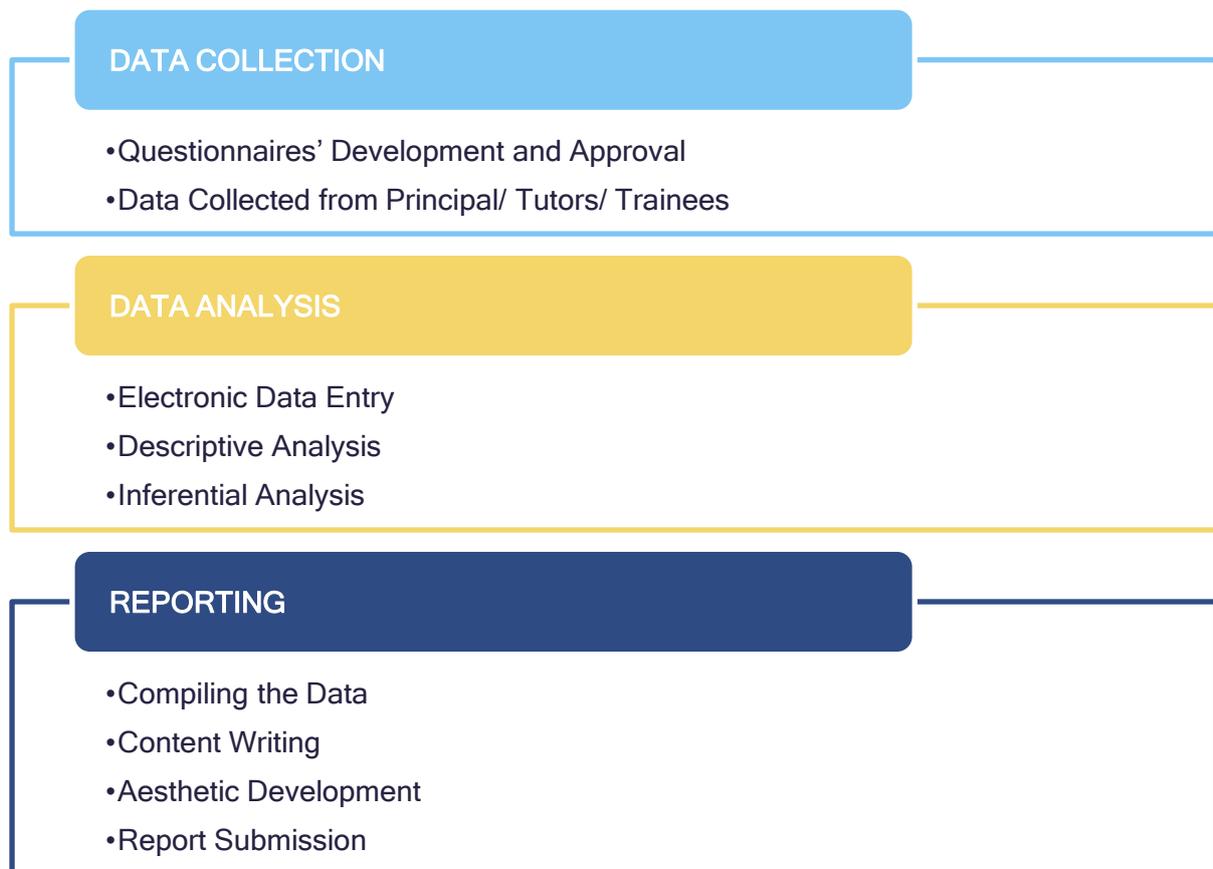
IBM SPSS ('Statistical Product and Service Solutions', formerly known as 'Statistical Package for the Social Sciences') was used to analyse the data collected from the respondents. SPSS is the most widely used statistical data analysis program in the domain of social sciences. It helps in efficient statistical analysis, data management (case selection, file reshaping, creating derived data) and data documentation (a metadata dictionary is stored in the data file). Most of the researchers in health, survey, government, education, marketing, and other domains use SPSS as an authentic source of data management and analysis (KDnuggets, 2013).

Therefore, in the current study, SPSS was preferred on other data analysis software. Microsoft Excel was also used to enrich data analysis.

2.5. Outline of the Procedure Adopted in The Evaluation

The following procedure has been adopted in the given sequence for the post-project evaluation.

Figure 3: Evaluation Procedure



3. OBJECTIVE-WISE VALIDATION

Six (06) mandated project-specific objectives, mentioned in **Table 1**, have been duly validated.

3.1. Validation of Tutors

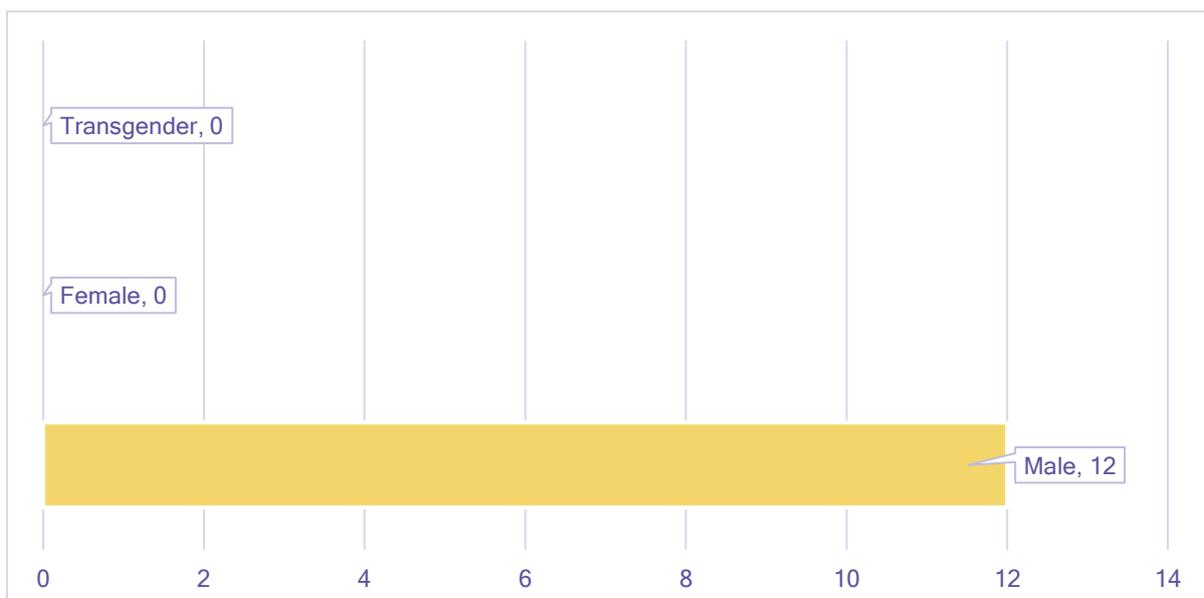
Following aspects of the tutors have been validated through the collected data:

Gender: All tutors were male.

Table 5: Tutors' Gender

S. #	Gender	Tutors	Tutors %
1	Male	12	100
2	Female	0	0
3	Transgender	0	0
Total		12	100

Figure 4: Tutors' Gender

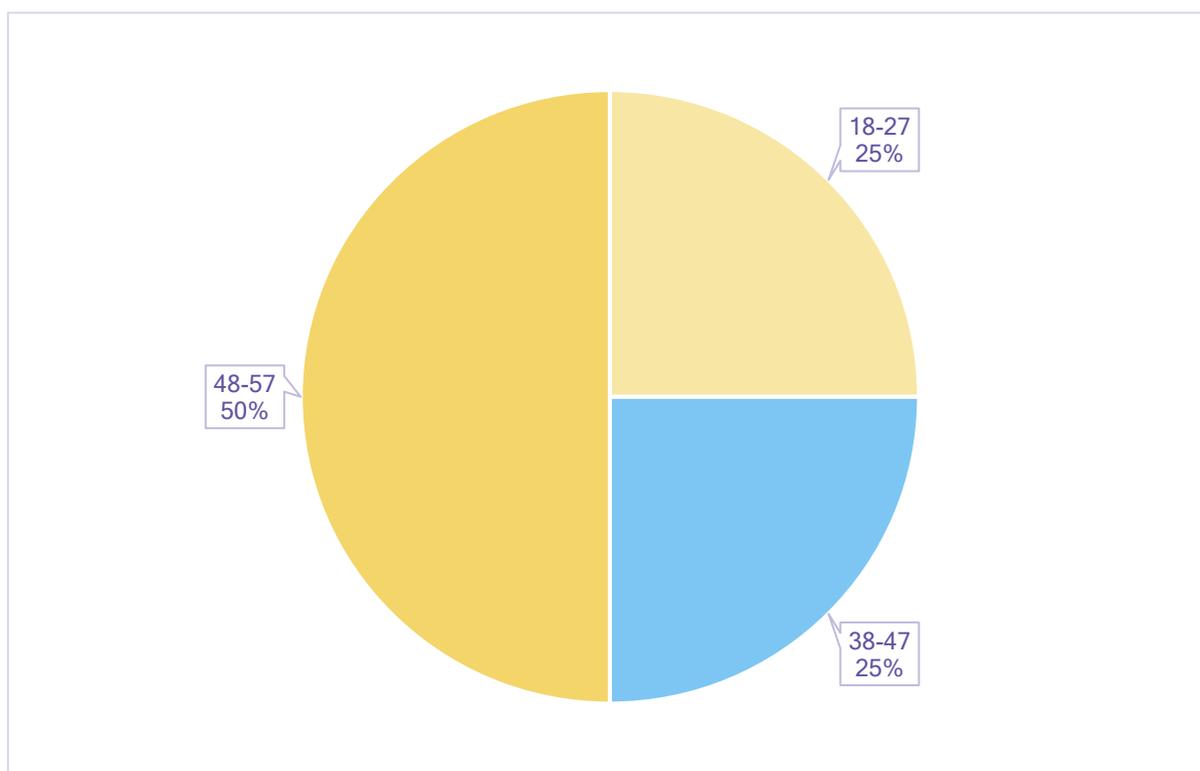


Age Bracket: Out of the 12 tutors, 3 were less than 30 years old, 3 were between 38-47, and 6 were between 48-57.

Table 6: Tutors' Age Bracket

S. #	Age Bracket (Years)	Tutors	Tutors %
1	18-27	3	25.0
2	38-47	3	25.0
3	48-57	6	50.0
Total		12	100

Figure 5: Tutors' Age Bracket

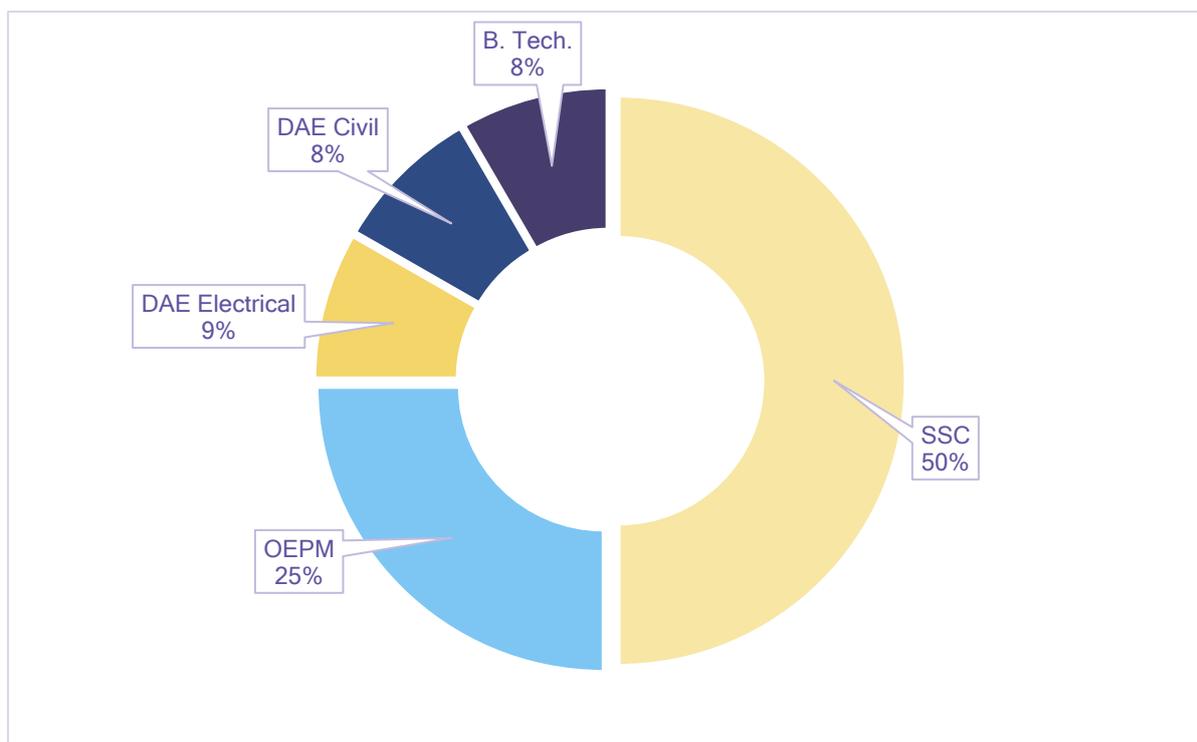


Education: The educational data was collected from both the questionnaires and the data sheet of ATIN's headquarters and it was found in accordance with the curriculum needs. The Following table and figure - generated in the light of available data, represent the true picture of the educational status of the tutors.

Table 7: Tutors' Education Level

S. #	Education	Tutors	Tutors %
1	SSC	6	50
2	SSC + OEPM Certificate	3	25
3	Diploma of Associate Engineer (DAE) Electrical	1	8.34
4	Diploma of Associate Engineer (DAE) Civil	1	8.33
5	Bachelors of Technology (B. Tech.) - Auto Mobile	1	8.33
Total		12	100

Figure 6: Tutors' Education Level



Validation of Tutors Corresponding to the Trades: Out of 7 trades, HTV Driving had the highest number of tutors and trainees i.e. 4 and 100, followed by Heavy Construction Machinery Operators i.e. 3 and 75 respectively. The rest of the trades were having 1 tutor and 25 trainees per trade. The total numbers in the light of the survey were 12 tutors and 300 trainees/ pass-outs, which is just following the mandate mentioned in the MoU. The details can be seen in the given table and figures and can also be compared with Table 3 for cross verification.

Table 8: Number of Tutors and Corresponding Trainees

S. #	Trade	Tutors	Tutors %	Trainees	Trainees %
1	HTV Driving	4	33.3	100	33.3
2	Heavy Construction Machinery Operator (HMO)	3	25.0	75	25.0
3	Plumbing	1	8.3	25	8.3
4	Building Electrician	1	8.3	25	8.3
5	Auto Electrician	1	8.3	25	8.3
6	Auto Mechanic	1	8.3	25	8.3
7	Welding (Arc & Gas)	1	8.3	25	8.3
Total		12	100	300	100

Figure 7: Number of Tutors - Trade-Wise

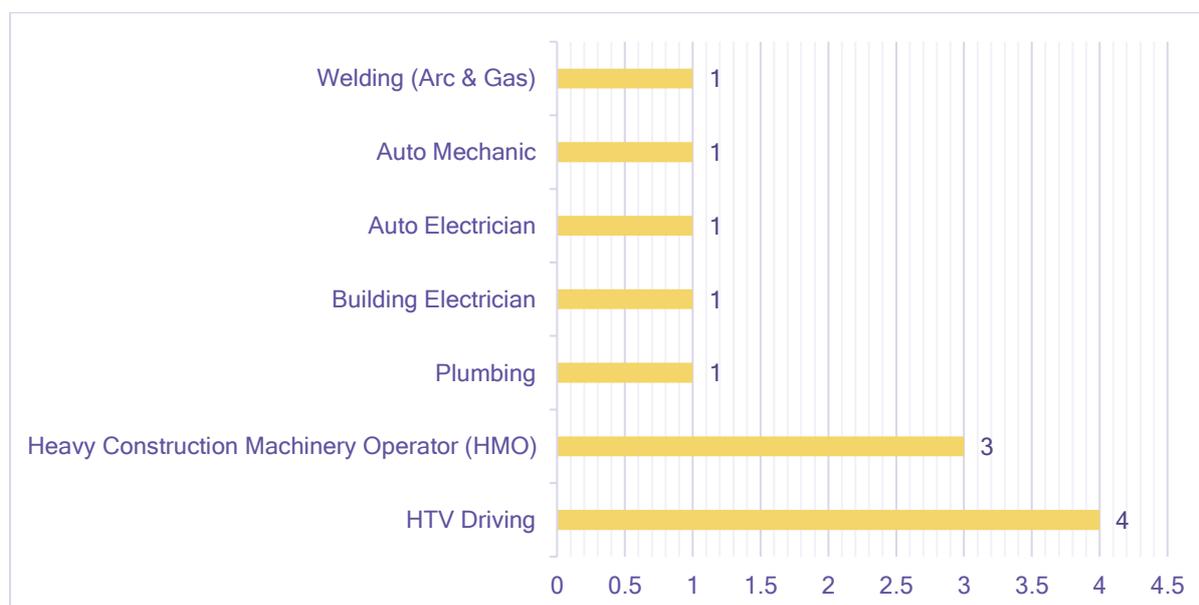
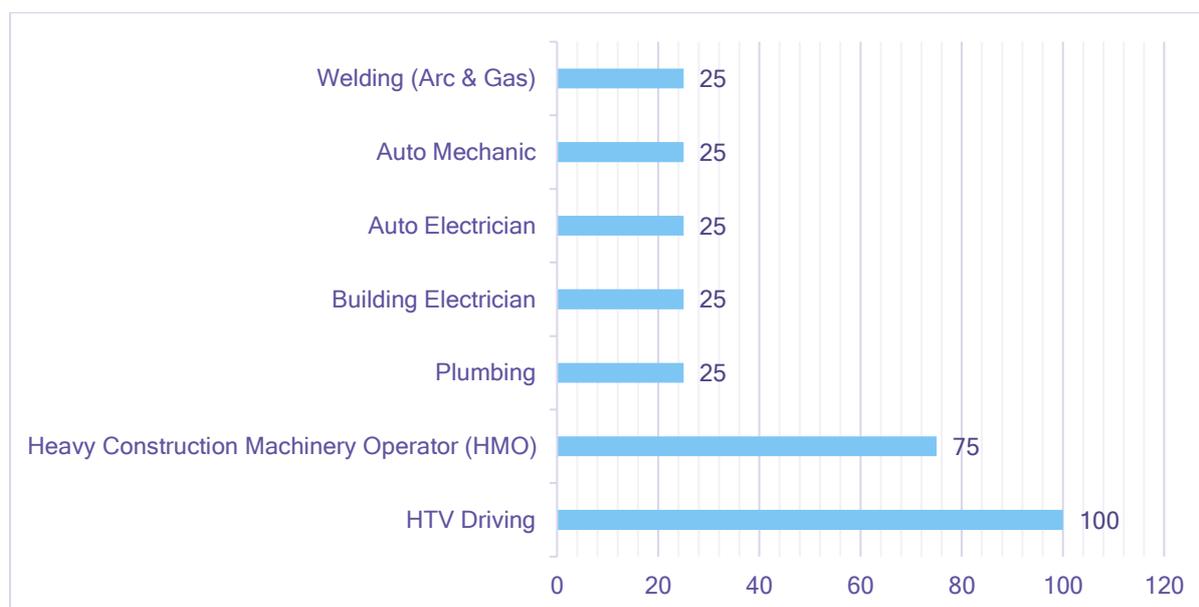


Figure 8: Number of Trainees - Trade-Wise

Qualification, Experience, Merit-Based Hiring, and Technical and Motivational Skills: The tutors considered themselves qualified, experienced, and assumed that they were appointed on merit. Both the principal and trainees were agreeing with the tutors' opinion. The trainees and principal also positively opined on the motivational skills to learn the course content and training techniques to create ease in learning for the trainees. Following is the tabulated depiction of the queries from principal, tutors, and trainees.

In the light of the factsheet receive from ATIN headquarters, all the tutors were highly experienced in their respectable domains and possessed the required qualification as per the curriculum. The details can be seen in the factsheet attached in annexure section.

Table 9: Qualities of Tutors

S. #	Particulars	Principal	Tutors	Trainees
1	Tutors possessed the required qualifications.	Strongly Agree		
2	Tutors possessed the required experience.			
3	Tutors were appointed by complying with the requisite procedure.			
4	Tutors successfully motivated the trainees to learn the course content.			
5	Tutors used effective techniques through which trainees were able to memorize facts, ideas and methods with great ease.			

Trainees Specific Reviews Regarding Subject Knowledge and Communication Skills: A vast majority of the trainees mentioned that the tutors had adequate subject knowledge and good communication skills through which they developed a fruitful learning environment and encouraged the trainees to participate and interact.

3.2. Validation of Curriculum

The core objective of verifying the curriculum was to check if it was in accordance with the recognised syllabus. Following are the survey findings.

Recognition and Type: While validating the curriculum both the principal and tutors, and a vast majority of trainees verified that:

- a. The curriculum was recognised by TEVTA.
- b. The curriculum type was 'Traditional Timebound'.

Providing the Approved Curriculum to the Tutors: The principal mentioned that the details of approved curricula were provided to all the tutors during the program. All the tutors substantiated the principal's statement to be true. The trainees validated the principal and tutors by mentioning that the training institute followed approved curricula during the training.

Level of Satisfaction and Market-Oriented Skills: All the stakeholders i.e. principal, tutors, and trainees showed their satisfaction with the curriculum. Principal and tutors believed that the existing curriculum equipped the trainees with market-oriented skills. The trainees also opined that they have been equipped with marketable skills.

Improvement in the Curriculum: The principal, while showing satisfaction with the existing curriculum, opined that there is still room for improvement. Contrary to this, the tutors disagreed with further improvement and most of the trainees supported the tutors' opinion.

Balancing the Theory and Practical: In response to a query, the teachers were of a strong opinion that they maintained a good balance between the theory and practical. Most of the trainees agreed to this statement.

3.3. Validation of Training Delivery

Three basic aspects have been covered to check and verify the training delivery to the trainees as per the MoU.

Lesson Plans: Tutors believed that they duly prepared and always followed the lesson plans for training delivery. The principal and most of the trainees marked these statements to be true through their opinions.

Trainees Assessment: In the combined view of principal, tutors, and trainees, the trainees had been assessed by the tutors under the predefined assessment criteria. The tutors prepared question papers/ assessment material by following the assessment plan provided to them by the institute.

Guest Lectures from Industry and Academia: Principal and tutors witnessed the arrangement of lectures of the renowned guest speakers both from industries and academia, whereas a majority of the trainees agreed to their statement.

3.4. Validation of Training Completion

The consulting agency was mandated to validate the training duration, attendance, number of pass-outs, and in time distribution of the training certificates. Following queries were generated (approved by the competent authority in the form of questionnaires) to validate the aforementioned domains.

Enrolments and Pass-Outs: The principle of the ATIN Khairpur declared enrolment of 300 candidates for training in their respective domains and all of them (300) got passed out.

Figure 9: Enrolments Vs. Pass-Outs



Training Duration: In the view of the principal, tutors, and trainees, the institute had provided the training for a duration as required by the BBSHRRDB i.e. 6 months.

Attendance: They also agreed that during the training the institute complied with the predefined attendance criteria and accurate attendance records were maintained.

Examination: The principal and tutors made the examinations possible as per the schedule. A clear majority of the trainees marked this to be true.

Certificate Distribution: Certificates have been distributed among all the pass-outs within the due course of time. The statement has been derived from the relevant data collection. An insignificant number of trainees mentioned a slight delay in certification, but a clear majority denied their point of view.

3.5. Validation of Certification

The principal, tutors, and trainees validated the affiliation of the institute with the Sindh Board of Technical Education (SBTE).

3.6. Validation of Employment

3.6.1. Prerequisites

Before further validation of employment, it is pertinent to mention the gender, age groups, and educational background of all the trainees.

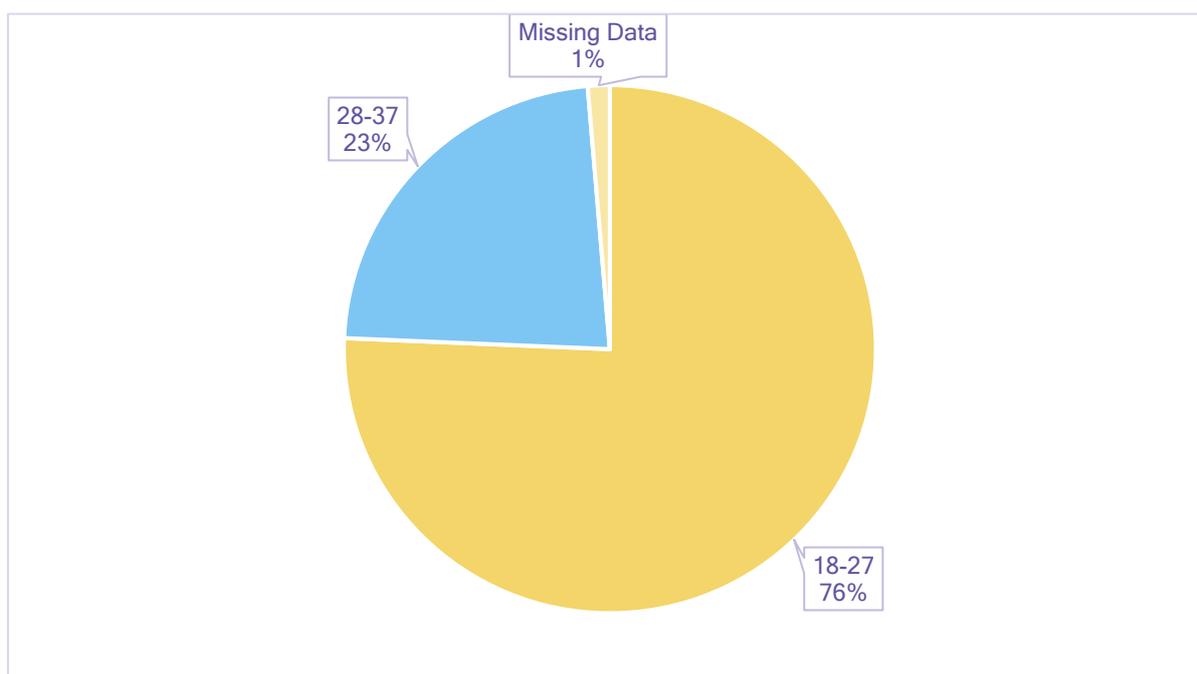
Gender of Trainees: All the trainees were male.

Age Group of Trainees: Around 76 percent of the trainees were lying in the age bracket of 18-27, while the rest 23 percent were lying in the bracket of 28-37. The details are given below.

Table 10: Age Group of Trainees

Age Bracket (Years)	Trainees	Trainees %
18-27	227	75.7
28-37	69	23.0
Missing Data	4	1.3
Total	300	100

Figure 10: Age Group of Trainees

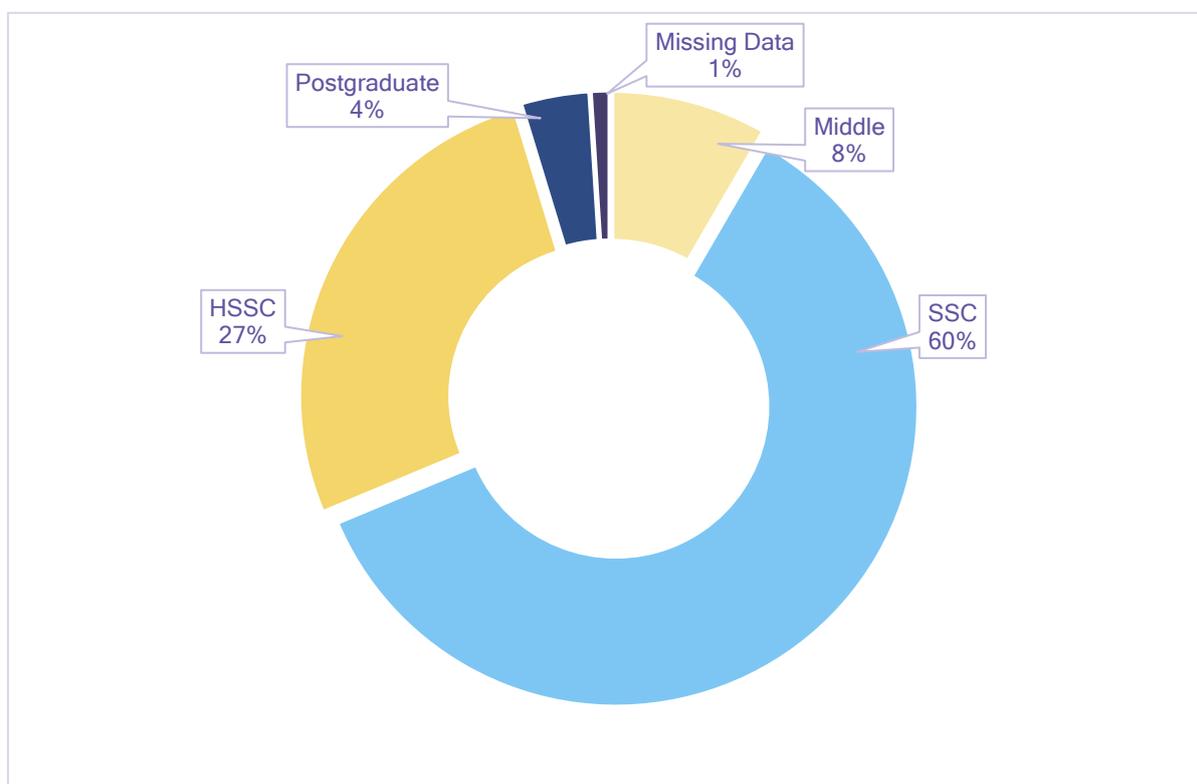


Educational Background: Out of 300 trainees only 11 were graduates, while 80 of them were having a higher secondary school certificate. 181 of them were having secondary school certificates and 25 were just middle pass. The details can be seen in the following table and figure.

Table 11: Trainees' Education Level

Education Level	Trainees	Trainees %
Middle	25	8.3
SSC	181	60.3
HSSC	80	26.7
Graduate	11	3.7
Missing Data	3	1.0
Total	300	100

Figure 11: Trainees' Education Level



3.6.2. Validation

Employment generation is the key element of the youth skills development programs. A detailed overview is given below.

Institute's Support in Trainee's Employment: The principal and tutors mentioned that the institute helped the trainees in finding suitable job advertisements and a clear majority of trainees admitted their statement. The principal and tutors also mentioned that the institute helped the trainees in job applications and job interview preparation, and a significant number of trainees also admit this statement.

Employment Status: 123 (41 percent) trainees mentioned that they have a full-time job whereas only 4 (1.3 percent) are working on part-time basis. On this question, 171 (57 percent) trainees mentioned that they are still unemployed. A total of 127 (42.3 percent) trainees marked themselves employed whereas 171 (57 percent) marked themselves unemployed. The following table and figures depict the complete details of the employment of the trainees.

Table 12: Trainees' Employment Status

S. #	Employment Status	Trainees	Trainees %
1	Full-time employment	123	41.0
2	Part-time employment	4	1.3
Total Employed		127	42.3
3	Unemployed	171	57.0
4	Missing Data	2	.7
Total		300	100

Figure 12: Trainees' Employment Status

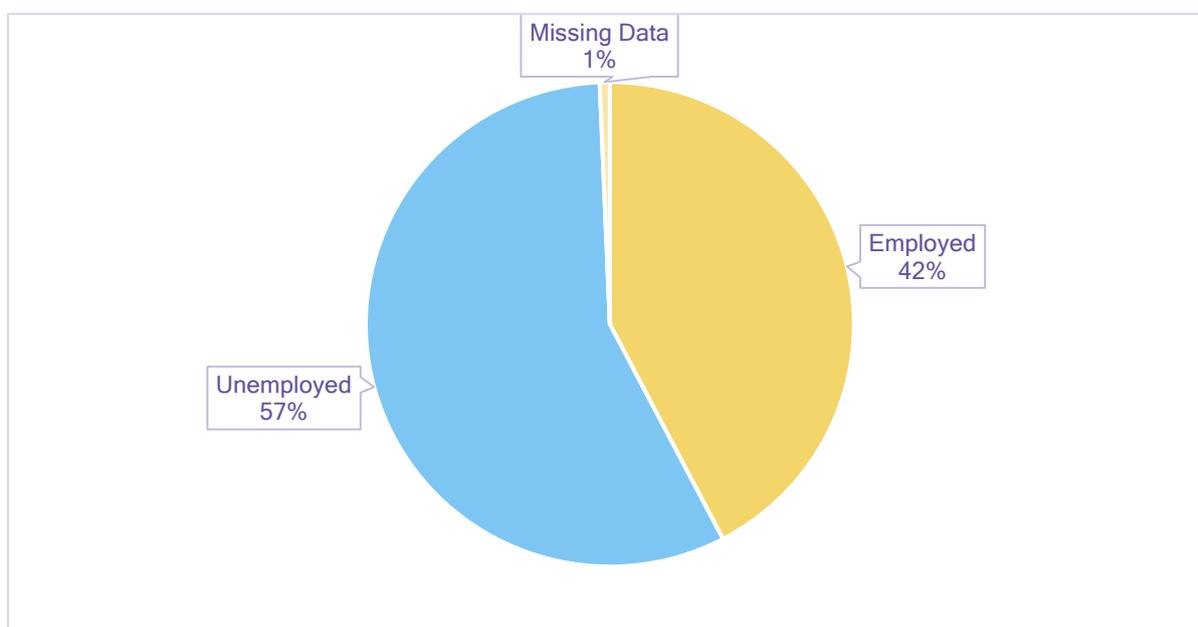
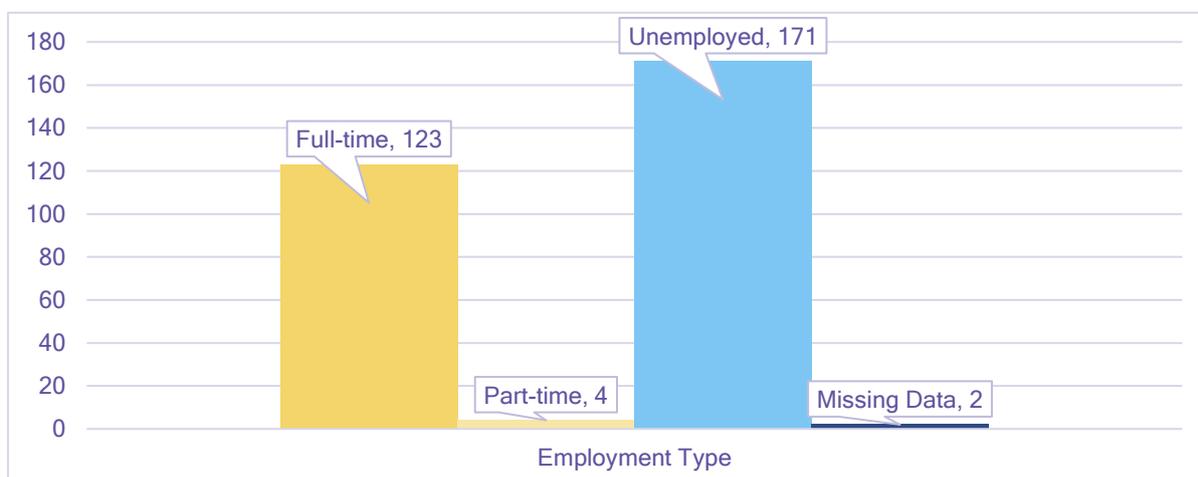


Figure 13: Trainees' Employment Type

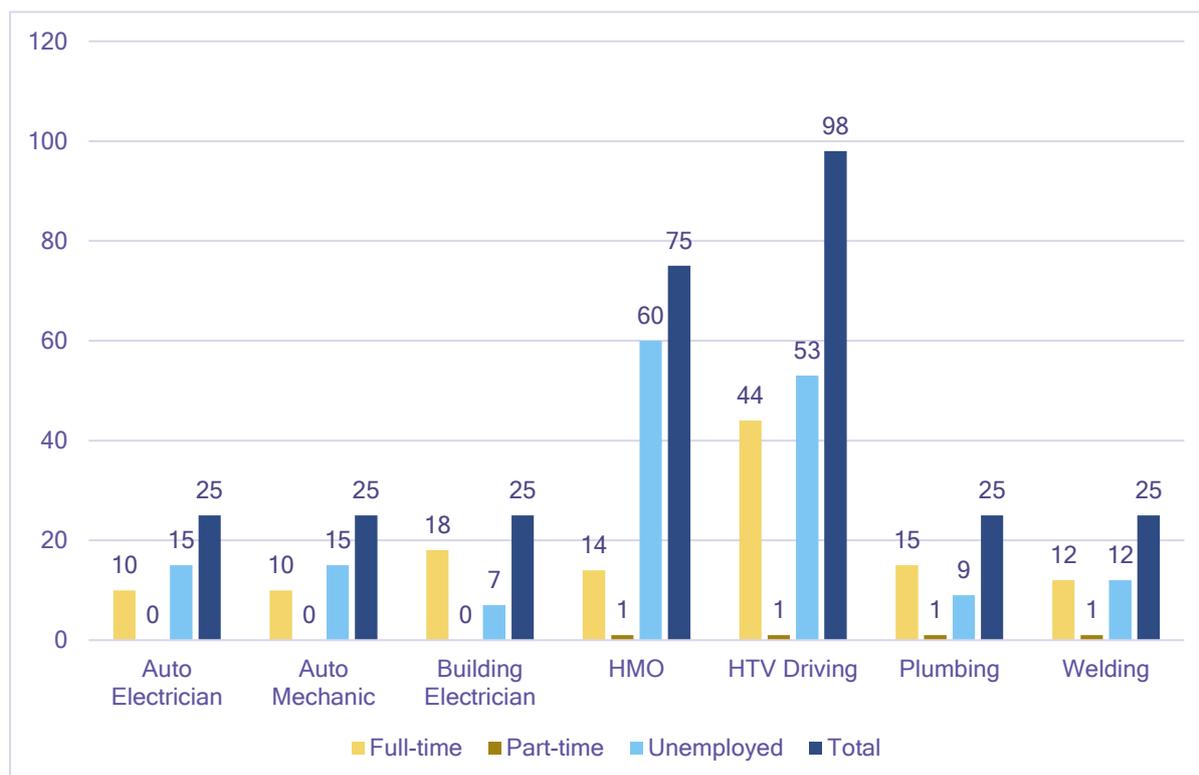


Following is the cross-tabulation of trained trades and the employment status.

Table 13: Trainees' Employment Status - Trade-Wise

S. #	Trained Trade	Full-time employment	Part-time employment	Unemployed	Total
1	Auto Electrician	10	0	15	25
2	Auto Mechanic	10	0	15	25
3	Building Electrician	18	0	7	25
4	Heavy Construction Machinery Operator (HMO)	14	1	60	75
5	HTV Driving	44	1	53	98
6	Plumbing	15	1	9	25
7	Welding (Arc & Gas)	12	1	12	25
Total		123	4	171	298

Figure 14: Trainees' Employment Status - Trade-Wise

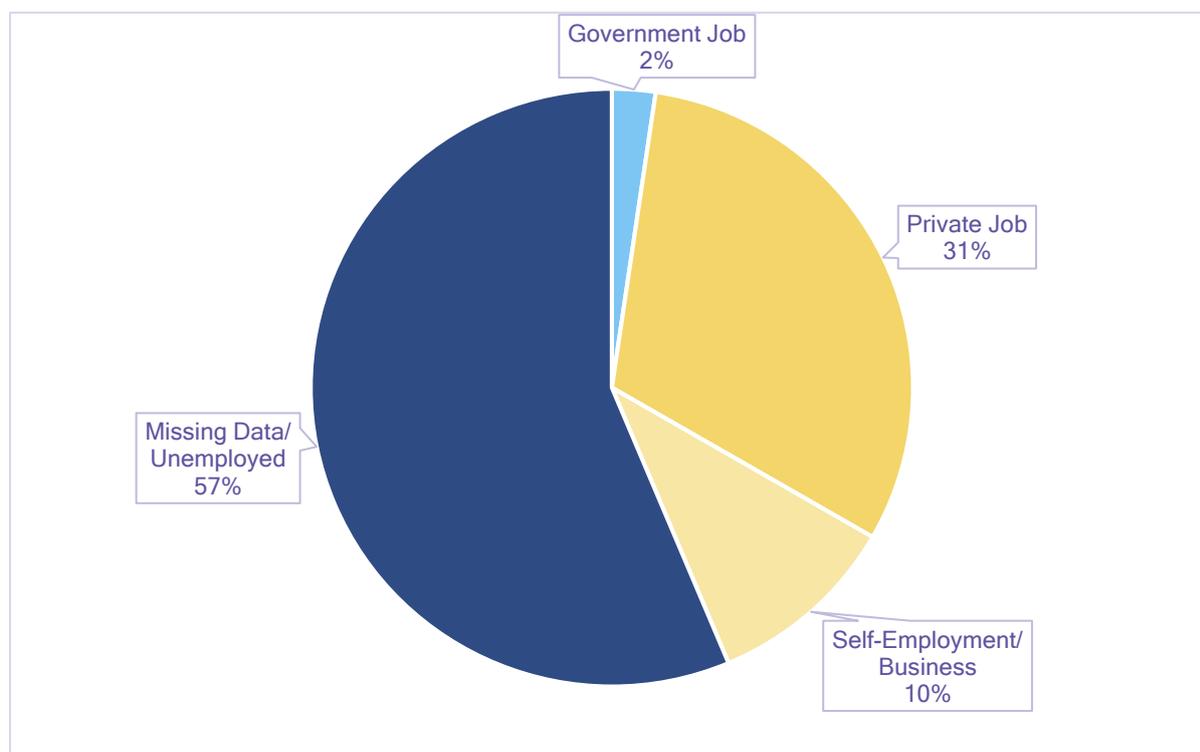


Nature of Employment: 7 (2.3 percent) trainees mentioned that they have been employed by the government, followed by the 93 trainees (31 percent) employed by the private sector, and 31 trainees (10.3 percent) were self-employed or having their own business.

Table 14: Trainees' Employment Nature

S. #	Nature of Employment	Trainees	Trainees %
1	Government Job	7	2.3
2	Private Job	93	31.0
3	Self-Employment/ Business	31	10.3
4	No Answer	169	56.3
Total		300	100

Figure 15: Trainees' Employment Nature

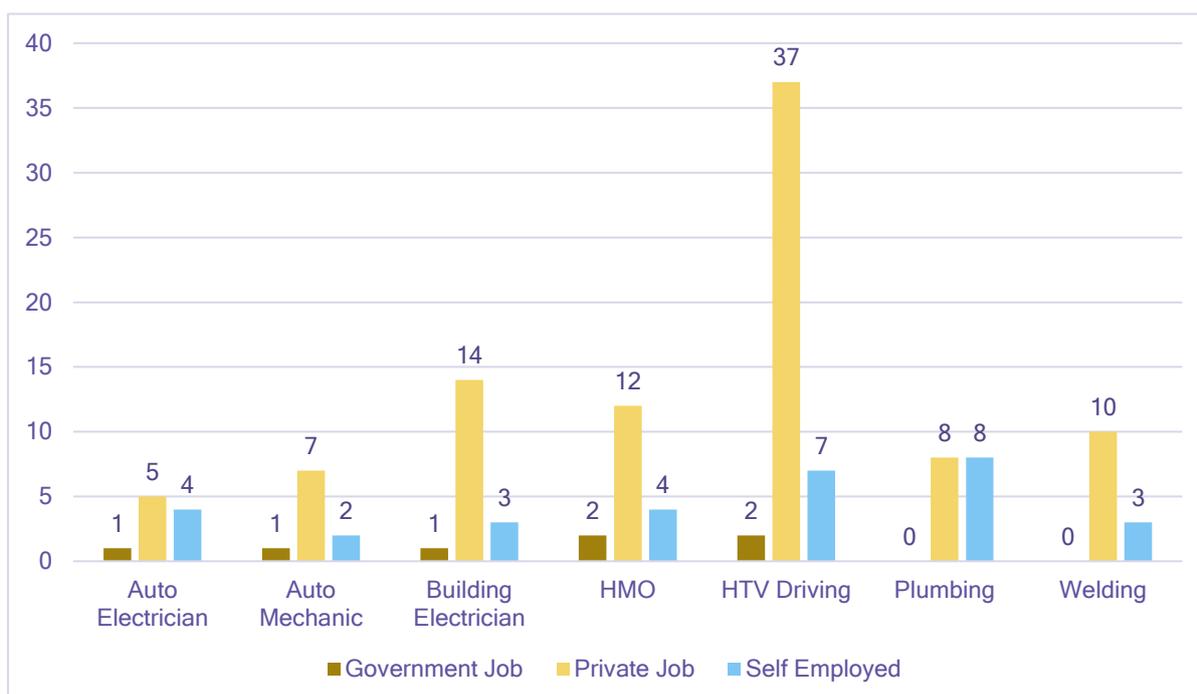


Following is the cross-tabulation of trained trades and the nature of employment.

Table 15: Trainees' Employment Nature - Trade-Wise

S. #	Trained Trade	Government Job	Private Job	Self Employed	Total
1	Auto Electrician	1	5	4	10
2	Auto Mechanic	1	7	2	10
3	Building Electrician	1	14	3	18
4	Heavy Construction Machinery Operator (HMO)	2	12	4	18
5	HTV Driving	2	37	7	46
6	Plumbing	0	8	8	16
7	Welding (Arc & Gas)	0	10	3	13
	Total	7	93	31	131

Figure 16: Trainees' Employment Nature - Trade-Wise

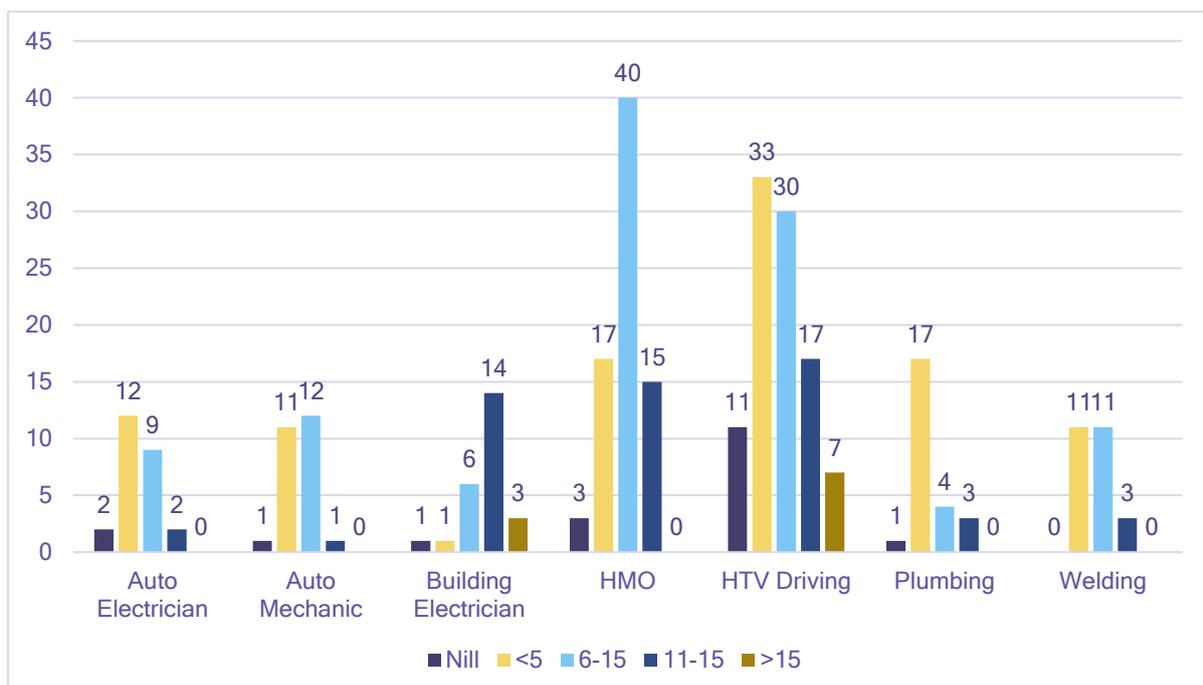


Job Applications: Out of 300 trainees, 102 mentioned that they have applied for less than 5 jobs, 112 applied for 6-10 jobs, 55 applied for 11-15 jobs, and 10 of them applied for more than 15 jobs. 19 trainees have not applied for any job whereas the data of 2 trainees is missing in this regard. Following is the trade-wise tabulation and figure of the job applications.

Table 16: Trainees' Job Applications - Trade-Wise

S. #	Trained Trade	Nil	<5	6-10	11-15	>15	Total
1	Auto Electrician	2	12	9	2	0	25
2	Auto Mechanic	1	11	12	1	0	25
3	Building Electrician	1	1	6	14	3	25
4	Heavy Construction Machinery Operator (HMO)	3	17	40	15	0	75
5	HTV Driving	11	33	30	17	7	98
6	Plumbing	1	17	4	3	0	25
7	Welding (Arc & Gas)	0	11	11	3	0	25
Total		19	102	112	55	10	298

Figure 17: Trainees' Job Applications - Trade-Wise

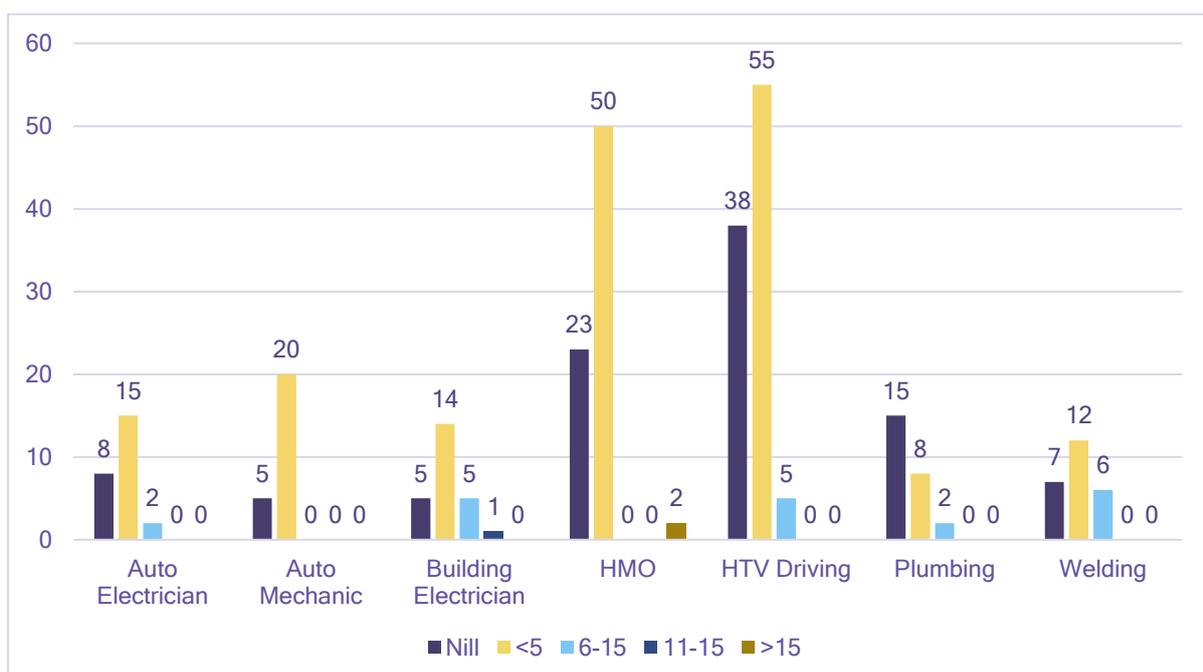


Job Interviews: Out of 300 trainees, 174 mentioned that they have appeared in less than 5 jobs interviews, 20 appeared in 6-10 interviews, 1 in 11-15 interviews, and 2 of them appeared in more than 15 interviews. 101 trainees have either not applied for any job, not received interview call(s), or not appeared in the interview(s), whereas the data of 2 trainees is missing in this regard. Following is the trade-wise tabulation and figure of the job interviews.

Table 17: Trainees' Job Interviews - Trade-Wise

S. #	Trained Trade	Nil	<5	6-10	11-15	>15	Total
1	Auto Electrician	8	15	2	0	0	25
2	Auto Mechanic	5	20	0	0	0	25
3	Building Electrician	5	14	5	1	0	25
4	Heavy Construction Machinery Operator (HMO)	23	50	0	0	2	75
5	HTV Driving	38	55	5	0	0	98
6	Plumbing	15	8	2	0	0	25
7	Welding (Arc & Gas)	7	12	6	0	0	25
	Total	101	174	20	1	2	298

Figure 18: Trainees' Job Interviews - Trade-Wise



3.6.3. Correlation Analysis

The correlation analysis was conducted to find some potential associations between the variables of the study. The results are given below.

Table 18: Correlation Analysis

Correlations						
Particulars	Sub Particulars	Qualification & Experience	Quality of Curriculum	Quality of Training Delivery	Training Completion	Institutional Support
Qualification & Experience	Pearson Corr.	1				
	Sig. (2-tailed)					
	N	300				
Quality of Curriculum	Pearson Corr.	.068	1			
	Sig. (2-tailed)	.239				
	N	300	300			
Quality of Training Delivery	Pearson Corr.	.024	.209**	1		
	Sig. (2-tailed)	.680	.000			
	N	298	298	298		
Training Completion	Pearson Corr.	.019	.225**	.475**	1	
	Sig. (2-tailed)	.745	.000	.000		
	N	300	300	298	300	
Institutional Support	Pearson Corr.	-.015	.214**	.267**	.453**	1
	Sig. (2-tailed)	.801	.000	.000	.000	
	N	300	300	298	300	300
**. Correlation is significant at the 0.01 level (2-tailed).						

Results of correlation analysis revealed that there were significant associations between qualification & experience of the tutors, quality of curriculum, quality of training delivery, training completion, and institutional support to the trainees. There was a direct significant correlation between 'Quality of Curriculum' and 'Quality of Training Delivery' which means that higher quality of curriculum was associated with higher quality of training delivery. There was a direct significant correlation between 'Quality of Curriculum' and 'Training Completion' which means that higher quality of curriculum was directly associated with effective completion of training within due time. There was a direct significant correlation between 'Quality of Training Delivery' and 'Training Completion' which means that higher level quality of curriculum was directly associated with effective completion of training delivery. Appreciably, 'Institutional Support' was directly and significantly associated with the 'Quality of Training Delivery' and 'Training Completion'.

4. CONCLUSION

As all the findings were validated through triangulation technique where comparisons of the results obtained from the responses of the principal, the tutors, and the trainees were made. Therefore, it can be concluded that the institute duly followed almost all of the important aspects of the program. Based upon the following validation points, it was concluded that the project has successfully achieved its objectives.

4.1. Validation of Tutors

- Sufficient male tutors in their respective domains/ trades were available in the institute.
- The education levels of the tutors were found in accordance with the training program.
- All the tutors were found well experienced in their respective domains.
- Pass-outs were overall satisfied with the tutors.
- Knowing the educations, experiences and the stakeholders' responses it can be concluded that the hiring of tutors was based on merit.

4.2. Validation of Curriculum

- The traditional time-bound curriculum was recognised by TEVTA Sindh.
- Curriculums were provided to the tutors who reportedly followed them during the training.
- The curriculum was market-oriented, so shall the trades. In HMO a significant number of pass-outs were unemployed, but knowing the historic perspective, the trade is highly demanded and the effect was created due to the COVID-19 pandemic where all the mega projects utilising the HMOs were dysfunctional.
- Tutors and trainees mentioned that the curriculum needs no improvement but there is always a need for continuous improvement. A change in the learning mindset is required.
- Generally, there was a balance between theory and practical mainly due to the tutors' experience.

4.3. Validation of Training Delivery

- Lesson plans were duly made and followed by the tutors as per the syllabus.
- The assessment mechanism was in line with the predefined criteria and under the syllabus.
- Guest speakers from both industry and academia delivered lectures during the training.

4.4. Validation of Training Completion

- 300 students were enrolled as per the MoU and all of them got passed out in the due course of time defined by the BBSHRRDB i.e. 6 months.
- The attendance record is maintained by the institute.
- Examinations were held on time.
- All the trainees received certificates in time. Just an insignificant number of trainees mentioned a slight delay in getting certificates.

4.5. Validation of Certification

- ATIN Khairpur is affiliated with the SBTE.

4.6. Validation of Employment

- Institute was supportive in finding job ads, application procedures, and interview preparations.
- Resultantly, approximately 42.3 percent of the pass-outs are employed as of today which meets the validation criteria i.e. at least 40%.
- Most of the HMO pass-outs were unemployed due to the COVID-19 pandemic as discussed in section 4.2.
- A very few pass-outs marked themselves unemployed in a query and then self-employed in another one, which shows dissatisfaction with their employment status. They are not included in 42.3 percent employed pass-outs.

5. SUGGESTIONS AND RECOMMENDATIONS

Although the project has achieved its prime objectives, there is still a need to enhance the objective as per the industry benchmarks. To improve the efficiency and effectiveness of future endeavours, it is suggested to take certain measures.

- Reconcile the demand-driven trades with the industries and distribute the trainees' enrolment quota accordingly.
- Enhance the number of offered trades as per the modern-day needs.
- Facilities like training infrastructure, public amenities, boarding and lodging, stipend, transport, etc. (whichever is applicable) also needs validation.
- Process evaluation (during the program evaluation) is equally important as the impact evaluation (after the program). Post-project evaluation without process evaluations does not give the ideal results.
- Tutors education criteria for hiring needs to be scaled up to create a much better and educated learning environment.
- The institutional support was appreciable regarding filing of job applications, preparation of interviews, career counselling, and learning of soft skills due to which the trainees might have succeeded to get employment. However, it is suggested to establish an employment cell or career counselling centre in the institute so that employment ration could be enhanced significantly.

ANNEXURE: QUESTIONNAIRES

The data was collected from principle, tutors, and pass-outs through three (03) different questionnaires, the specimens of which are given in this annexure.

Questionnaire # 01: for Principal



THIRD-PARTY EVALUATION OF BBSHRDDB SPONSORED TRAINING PROGRAM AT ATIN – NLC, KHAIRPUR

Respected Mr./ Miss.

I shall be very thankful if you spare some of your precious time to finish this questionnaire. Its purpose is to evaluate different aspects of the training sponsored by the **Benazir Bhutto Shaheed Human Resource Research and Development Board (BBSHRDDB)** at **Applied Technologies Institute NLC (ATIN), Khairpur** from July 2019 to January 2020. The aspects include information about tutors/ trainers, curriculum, training delivery, training completion, certification, and your employment status.

Please keep in mind your recent experience of managing the program as Principal of the institute and answer the following questions. The answers will not be judged as right or wrong. Please express your true opinions, feelings, and thoughts. All the information that you provide will be kept confidential and not be disclosed/ shared with any individual/ party.

Adeel Ahmad Shahid
Chief Executive
Agile Consulting (Pvt.) Ltd.

Demographical Information

1. Name:	_____					
2. Gender:	Male			Female		
3. Age (Years)	<18	18-27	28-37	38-47	48-57	>57
4. Education	Primary	Middle	SSC	HSSC	Graduate	Postgraduate
5. Curriculum/ Syllabus:	Recognized by NAVTTC	Recognized by TEVTA	Any other: _____			
6. Type of Curricula:	Traditional/ Time-bound			Competency Based Training (CBT)		
7. Total Number of Enrolled Candidates:	_____					
8. Total Number of Pass Outs:	_____					
QUALIFICATION AND EXPERIENCE OF TUTOR(S)						
Please state your level of agreement/ disagreement with the following statements: (Hints: 1. Strongly disagree, 2. Disagree, 3. Neither disagree nor agree, 4. Agree, 5. Strongly agree)						
9.	All tutors possessed required qualifications for the appointment of the tutor under BBSHRDDB program.	1	2	3	4	5
10.	All tutors possessed required experience for the appointment of the tutor under BBSHRDDB program.	1	2	3	4	5
11.	All tutors were appointed by complying with the requisite procedure of appointment under BBSHRDDB program.	1	2	3	4	5



CURRICULUM						
Please state your level of agreement/ disagreement with the following statements: (Hints: 1. Strongly disagree, 2. Disagree, 3. Neither disagree nor agree, 4. Agree, 5. Strongly agree)						
12.	Details of approved curricula were provided to all tutors during the program.	1	2	3	4	5
13.	I am satisfied with the existing curriculum as it equipped students with the market-oriented skills.	1	2	3	4	5
14.	There is a need to improve curriculum.	1	2	3	4	5
TRAINING DELIVERY						
Please state the frequency with the following statements: (Hints: 1. Never, 2. Rarely, 3. Sometimes, 4. Very often, 5. Always)						
15.	The tutors followed the provided lesson plans for this program.	1	2	3	4	5
16.	The tutors prepared lesson plans for this program.	1	2	3	4	5
17.	The tutors delivered lessons according to the lesson plans.	1	2	3	4	5
18.	The tutors followed the assessment plans provided for this program.	1	2	3	4	5
19.	The tutors prepared assessments (question papers) for this program.	1	2	3	4	5
20.	The tutors conducted assessments according to the assessment criteria.	1	2	3	4	5
TRAINING COMPLETION						
Please state your level of agreement/ disagreement with the following statements: (Hints: 1. Strongly disagree, 2. Disagree, 3. Neither disagree nor agree, 4. Agree, 5. Strongly agree)						
21.	The institute hired motivational tutors who successfully motivated trainees to learn course materials even when they were dull and uninteresting.	1	2	3	4	5
22.	The institute hired the tutors who used effective techniques though which trainees memorized facts, ideas and methods with a great ease.	1	2	3	4	5
23.	The Institute arranged lectures of renown guest speakers from industry.	1	2	3	4	5
24.	The Institute arranged lectures of renown guest speakers from academia.	1	2	3	4	5
25.	This institute arranged provided training for the duration as required by BBSHRDB program.	1	2	3	4	5
26.	This institute complied with (followed) the attendance criteria during the training.	1	2	3	4	5
27.	The Institute maintained accurate record of attendance.	1	2	3	4	5
28.	Examinations were held according to the schedules.	1	2	3	4	5
29.	Certificates were distributed within due time.	1	2	3	4	5
CERTIFICATION						
Please state your level of agreement/ disagreement with the following statements: (Hints: 1. Strongly disagree, 2. Disagree, 3. Neither disagree nor agree, 4. Agree, 5. Strongly agree)						
30.	This institute has an affiliation with Sindh Board of Technical Education (SBTE).	1	2	3	4	5
31.	This institute helped students in finding suitable job advertisements.	1	2	3	4	5
32.	This institute helped students in applying for the jobs.	1	2	3	4	5
33.	This institute helped students in preparing for the job interviews.	1	2	3	4	5

T h a n k Y o u
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Questionnaire # 02: for Tutors



THIRD-PARTY EVALUATION OF BBSHRRDB SPONSORED TRAINING PROGRAM AT ATIN – NLC, KHAIRPUR

Respected Mr./ Miss.

I shall be very thankful if you spare some of your precious time to finish this questionnaire. Its purpose is to evaluate different aspects of the training sponsored by the **Benazir Bhutto Shaheed Human Resource Research and Development Board (BBSHRRDB)** at **Applied Technologies Institute NLC (ATIN), Khairpur** from July 2019 to January 2020. The aspects include information about tutors/ trainers, curriculum, training delivery, training completion, certification, and your employment status.

Please keep your recent teaching/ tutoring experience in mind and answer the following questions. The answers will not be judged as right or wrong. Please express your true opinions, feelings, and thoughts. All the information that you provide will be kept confidential and not be disclosed/ shared with any individual/ party.

Adeel Ahmad Shahid
Chief Executive
Agile Consulting (Pvt.) Ltd.

Demographical Information

1. Name:	_____					
2. Gender:	Male			Female		
3. Age (Years)	<18	18-27	28-37	38-47	48-57	>57
4. Education	Primary	Middle	SSC	HSSC	Graduate	Postgraduate
5. Trained Trade:	_____					
6. Curriculum/ Syllabus:	Recognized by NAVTTC	Recognized by TEVTA	Any other: _____			
7. Type of Curricula:	Traditional/ Time-bound			Competency Based Training (CBT)		
QUALIFICATION AND EXPERIENCE OF TUTOR(S)						
Please state your level of agreement/ disagreement with the following statements:						
(Hints: 1. Strongly disagree, 2. Disagree, 3. Neither disagree nor agree, 4. Agree, 5. Strongly agree)						
8.	I possessed required qualification for the appointment of the tutor under BBSHRRDB program.	1	2	3	4	5
9.	I possessed required experience for the appointment of the tutor under BBSHRRDB program.	1	2	3	4	5
10.	I was appointed by complying with the requisite procedure of appointment under BBSHRRDB program.	1	2	3	4	5



CURRICULUM						
Please state your level of agreement/disagreement with the following statements: (Hints: 1. Strongly disagree, 2. Disagree, 3. Neither disagree nor agree, 4. Agree, 5. Strongly agree)						
11.	I received details of approved curricula during the program.	1	2	3	4	5
12.	I maintained a good balance between theory and practical.	1	2	3	4	5
13.	I am satisfied with the existing curriculum as it equipped students with the market-oriented skills.	1	2	3	4	5
14.	There is a need to improve curriculum.	1	2	3	4	5
TRAINING DELIVERY						
Please state the frequency with the following statements: (Hints: 1. Never, 2. Rarely, 3. Sometimes, 4. Very often, 5. Always)						
15.	I followed the provided lesson plans for this program.	1	2	3	4	5
16.	I prepared lesson plans for this program.	1	2	3	4	5
17.	I delivered lessons according to the lesson plans.	1	2	3	4	5
18.	I followed the assessment plans provided for this program.	1	2	3	4	5
19.	I prepared assessments (question papers) for this program.	1	2	3	4	5
20.	I conducted assessments according to the assessment criteria.	1	2	3	4	5
TRAINING COMPLETION						
Please state your level of agreement/ disagreement with the following statements: (Hints: 1. Strongly disagree, 2. Disagree, 3. Neither disagree nor agree, 4. Agree, 5. Strongly agree)						
21.	I was successful in motivating the trainees to learn course materials even when the materials were dull and uninteresting.	1	2	3	4	5
22.	I used effective techniques through which trainees were able to memorize facts, ideas and methods with a great ease.	1	2	3	4	5
23.	The Institute arranged lectures of renown guest speakers from industry.	1	2	3	4	5
24.	The Institute arranged lectures of renown guest speakers from academia.	1	2	3	4	5
25.	The Institute complied with (followed) the provided duration of the training.	1	2	3	4	5
26.	The Institute complied with (followed) the attendance criteria during the training.	1	2	3	4	5
27.	The Institute maintained accurate record of attendance.	1	2	3	4	5
28.	Examinations were held according to the schedules.	1	2	3	4	5
29.	Certificates were distributed within the due time.	1	2	3	4	5
CERTIFICATION						
Please state your level of agreement/ disagreement with the following statements: (Hints: 1. Strongly disagree, 2. Disagree, 3. Neither disagree nor agree, 4. Agree, 5. Strongly agree)						
30.	This institute has an affiliation with Sindh Board of Technical Education (SBTE).	1	2	3	4	5
31.	Management of the institute helped trainees to find suitable job advertisements.	1	2	3	4	5
32.	Management of the institute helped trainees to apply for the jobs.	1	2	3	4	5
33.	Management of the institute helped trainees to prepare for the job interviews.	1	2	3	4	5

T h a n k Y o u
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Questionnaire # 03: for Trainees



THIRD-PARTY EVALUATION OF BBSHRDB SPONSORED TRAINING PROGRAM AT ATIN – NLC, KHAIRPUR

Respected Mr./ Miss.

I shall be very thankful if you spare some of your precious time to finish this questionnaire. Its purpose is to evaluate different aspects of the training sponsored by the **Benazir Bhutto Shaheed Human Resource Research and Development Board (BBSHRDB)** at **Applied Technologies Institute NLC (ATIN), Khairpur** from July 2019 to January 2020. The aspects include information about tutors/ trainers, curriculum, training delivery, training completion, certification, and your employment status.

Please keep your recent training experience in mind and answer the following questions. The answers will not be judged as right or wrong. Please express your true opinions, feelings, and thoughts. All the information that you provide will be kept confidential. Your name, roll number, registration number, or any other personal data will not be disclosed/ shared with any individual/ party.

Adeel Ahmad Shahid
Chief Executive
Agile Consulting (Pvt.) Ltd.

Demographical Information

1. Name:	_____					
2. Gender:	Male			Female		
3. Age (Years)	<18	18-27	28-37	38-47	48-57	>57
4. Education	Primary	Middle	SSC	HSSC	Graduate	Postgraduate
5. Trained Trade:	_____					
6. Curriculum/ Syllabus:	Recognized by NAVTTC	Recognized by TEVTA	Any other: _____			
7. Type of Curricula:	Traditional/ Time-bound			Competency Based Training (CBT)		
8. Employment Status:	Full Time Employment		Part-Time Employment		Unemployed	
9. Nature of Employment:	Government	Private	Self-Employment/Business			
10. Job Applications (Applied):	NIL	<5	6-10	11-15	>15	
11. Job Interviews (Appeared):	NIL	<5	6-10	11-15	>15	
QUALIFICATION AND EXPERIENCE OF TUTOR(S)						
Please state your level of agreement/ disagreement with the following statements:						
(Hints: 1. Strongly disagree, 2. Disagree, 3. Neither disagree nor agree, 4. Agree, 5. Strongly agree)						
12.	The trainers/ tutors possessed required qualifications for the appointment of the tutor under BBSHRDB program.	1	2	3	4	5
13.	The trainers/ tutors possessed required experience for the appointment of the tutor under BBSHRDB program.	1	2	3	4	5
14.	The trainers/ tutors were appointed by complying with the requisite procedure of appointment under BBSHRDB program.	1	2	3	4	5



CURRICULUM						
Please state you level of agreement/ disagreement with the following statements: (Hints: 1. Strongly disagree, 2. Disagree, 3. Neither disagree nor agree, 4. Agree, 5. Strongly agree)						
15.	Training institute followed the approved curricula during the program.	1	2	3	4	5
16.	There was a balance between theory and practical.	1	2	3	4	5
17.	I am satisfied with the existing curriculum.	1	2	3	4	5
18.	Current curriculum equipped me with the market-oriented skills.	1	2	3	4	5
19.	There is a need to improve curriculum.	1	2	3	4	5
TRAINING DELIVERY						
Please state the frequency with the following statements: (Hints: 1. Never, 2. Rarely, 3. Sometimes, 4. Very often, 5. Always)						
20.	Tutors complied with (followed) the provided lesson plans for this program.	1	2	3	4	5
21.	Tutors prepared lesson plans for this program.	1	2	3	4	5
22.	Tutors delivered lessons according to the lesson plans.	1	2	3	4	5
23.	Tutors complied with (followed) the assessment plans provided for this program.	1	2	3	4	5
24.	Tutors prepared assessments (question papers) for this program.	1	2	3	4	5
25.	Tutors conducted assessments according to the assessment criteria.	1	2	3	4	5
26.	The tutors had adequate knowledge of subject.	1	2	3	4	5
27.	The tutors had encouraged participation and interaction.	1	2	3	4	5
28.	The tutors had developed learning environment.	1	2	3	4	5
29.	The tutors had adequate communication skills to catch my attention.	1	2	3	4	5
TRAINING COMPLETION						
Please state you level of agreement/ disagreement with the following statements: (Hints: 1. Strongly disagree, 2. Disagree, 3. Neither disagree nor agree, 4. Agree, 5. Strongly agree)						
30.	Tutors successfully motivated me to learn course materials even when they were dull and uninteresting.	1	2	3	4	5
31.	The tutors used effective techniques through which I memorized facts, ideas and methods with a great ease.	1	2	3	4	5
32.	The Institute arranged lectures of renown guest speakers from industry.	1	2	3	4	5
33.	The Institute arranged lectures of renown guest speakers from academia.	1	2	3	4	5
34.	The Institute complied with (followed) the provided duration of the training.					
35.	The Institute complied with (followed) the attendance criteria during the training.	1	2	3	4	5
36.	The Institute maintained accurate record of attendance.	1	2	3	4	5
37.	Examinations were held according to the schedules.	1	2	3	4	5
38.	Certificates were distributed within due time.	1	2	3	4	5
CERTIFICATION						
Please state you level of agreement/ disagreement with the following statements: (Hints: 1. Strongly disagree, 2. Disagree, 3. Neither disagree nor agree, 4. Agree, 5. Strongly agree)						
39.	This institute has an affiliation with Sindh Board of Technical Education (SBTE).	1	2	3	4	5
40.	Management of the institute helped me to find suitable job advertisements.	1	2	3	4	5
41.	Management of the institute helped me to apply for the jobs.	1	2	3	4	5
42.	Management of the institute helped me to prepare for the job interviews.	1	2	3	4	5

T h a n k Y o u
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Factsheet: Education, Experience, and Exposure

S. #	Name	Designation	Trade	Qualification	Experience	Qualification: As per Curriculum
1	Mr. Muhammad Bashir Ghumman	Senior Instructor Auto Mechanic	Auto Mechanic	B. Tech (Auto Mobile)	15 Years in ATIN NLC	DAE in Auto Technology with 1-year experience or 2 years certificate in Auto Mechanic with 5 years' experience or Lab Assistant heaving Metric qualification with 5 years' service in VTI
2	Sep. Asad Ullah (Retd.)	Junior Instructor Heavy Transport Vehicle (HTV) Driving	Heavy Transport Vehicle (HTV) Driving	Matric	18 Years Pak Army 4 Years in ATIN NLC	Diploma of Associate Engineer in (Auto & diesel / mechanical / Power tech.) with five years' experience of managing/ handling heavy vehicle maintenance/ driving department Or Matric with 10 Yr. experience
3	Nk. Ali Gohar (Retd.)	Junior Instructor Heavy Transport Vehicle (HTV) Driving	Heavy Transport Vehicle (HTV) Driving	Matric	23 Years Pak Army 4 Years in ATIN NLC	Diploma of Associate Engineer in (Auto & diesel / mechanical / Power tech.) with five years' experience of managing/ handling heavy vehicle maintenance/ driving department Or Matric with 10 Yr. experience
4	Swr. Ali Hassan (Retd.)	Junior Instructor Heavy Transport Vehicle (HTV) Driving	Heavy Transport Vehicle (HTV) Driving	Matric	18 Years Pak Army 04 Years in ATIN NLC	Diploma of Associate Engineer in (Auto & diesel / mechanical / Power tech.) with five years' experience of managing/ handling heavy vehicle maintenance/ driving department Or Matric with 10 Yr. experience
5	Sep. Bashir Ali (Retd.)	Junior Instructor Heavy Transport Vehicle (HTV) Driving	Heavy Transport Vehicle (HTV) Driving	Matric	18 Years Pak Army 02 Years in ATIN NLC	Diploma of Associate Engineer in (Auto & diesel / mechanical / Power tech.) with five years' experience of managing/ handling heavy vehicle maintenance/ driving department Or Matric with 10 Yr. experience
6	Sep. Talib Hussain (Retd.)	Junior Instructor Heavy Construction Machinery Operator (HMO)	Heavy Construction Machinery Operator (HMO)	Matric & OEPM Certificate	18 Years Pak Army 08 Year in ATIN NLC	DAE with 3 years' experience Or Certificate with 5 Year Experience
7	Lnk. Bakhat Ullah (Retd.)	Junior Instructor Heavy Construction	Heavy Construction Machinery	Matric & OEPM Certificate	18 Years Pak Army 02 Year in ATIN NLC	DAE with 3 years' experience Or Certificate with 5 Year Experience

		Machinery Operator (HMO)	Operator (HMO)			
8	Sep. Bashir Ahmed (Retd.)	Junior Instructor Heavy Construction Machinery Operator (HMO)	Heavy Construction Machinery Operator (HMO)	Matric & OEPM Certificate	18 Years Pak Army 02 Year in ATIN NLC	DAE with 3 years' experience Or Certificate with 5 Year Experience
9	Hav. Darya Khan (Retd.)	Instructor Auto Electrician	Auto Electrician	Matric	26 Years Pak Army 03 Years in ATIN NLC	DAE / 2 years' experience or G-1 / Level-3 Certificate with two year's workplace experience
10	Mr. Islam Gul	Junior Instructor Building Electrician	Building Electrician	DAE (Electrical)	04 Years in ATIN NLC	BSc Engineering / B. Tech (Honours) / B. Tech Pass or Three years Diploma of Associate Engineering in Electrical Technology with two years' experience in the relevant field or Two years certificate of Electrician (G-II Level) with six years' experience in the relevant field
11	Mr. Muhammad Sabir	Junior Instructor Welding	Welding (Arc & Gas)	Matric	10 Years in Civil 01 Years in ATIN NLC	1. D.A.E / B. Tech experience in the field of welding 2. 5 Years' experience in Industry / teaching 3. CSWIP or Other welding qualification would be added advantage 4. Computer Proficient
12	Mr. Bilal Ghazanfar	Junior Instructor Plumbing	Plumbing	DAE (Civil)	05 Years in ATIN NLC	B.Sc. Eng. and 2 years of relevant work experience or B-Tech and 4 years of relevant work experience or DAE Civil/Mechanical and 5 years of relevant work experience or Certificate as Plumber with 8 years relevant work experience

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Headquarters NLC
National Logistics Cell, Kashmir Road,
Near R.A Bazar, Rawalpindi Pakistan.
+92 (51) 111 652-000 info@nlc.com.pk Rawalpindi, PK