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LEARNING AND EARNING: Overcoming low education levels through skill development

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LEARNING AND EARNING:

**Overcoming low education levels
through skill development**

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TABLE OF CONTENTS

2

WHY SHOULD YOU READ THIS BOOKLET?

This booklet captures something not done before in Bangladesh – integrating underprivileged groups into nationally recognised skills programmes.

3

SECTION 1: INTRODUCTION

4

SKILLS FOR CHANGE: RABEYA AKHTER

How often, even in countries with the most progressive equal rights agendas, have you walked into a mechanic shop and seen a smiling young woman's face?

6

EDUCATION PROFILE: BANGLADESH

Bangladesh is a developing country in the South Asia region, which is rich in culture but lagging behind in health, education, employment and social security services.

7

GENDER PROFILE: BANGLADESH

Women's participation in skills development is strikingly low, ranging from 9-13% in public institutions and 33% in private institutions.

8

SECTION 2: HOW TO PROVIDE INCLUSIVE TRAINING

9

CONSULTING STAKEHOLDERS

We started by asking industry what skills they needed in their workers, what skills they would want apprentices to have, and what already existed that was working.

11

HOW TO MOBILIZE PARTNERS

The next step was to select the government and industry partners. This was done early to ensure that all partners were involved in the planning stages.

13

CHOOSING THE RIGHT TRAINING & ASSESSMENT APPROACH

The pilot would focus on integrating persons with low levels of education into the motorcycle-servicing sector.

16

CHOOSING THE RIGHT VENUE & EQUIPMENT

UCEP Mirpur Technical School and the industry workshops had their facilities upgraded and new equipment provided. What did they need?

18

THREE WAYS TO INVOLVE INDUSTRY

Industry involvement was vital to the success of the programme. Industry representatives were involved in all major programme decisions.

20

SKILLS UPGRADING: HOW WE MADE THE PROGRAMME SUSTAINABLE

To ensure the ongoing success of the course, everyone involved had their skills upgraded.

23

TRAINEE RECRUITMENT

An information session, selection criteria, an interview, a personal assessment and induction.

25

CHOOSING THE RIGHT COURSE CONTENT

Directly linking the current and future needs of the motorcycle-servicing sector with units of competency in the new NTVQF.

28

MONITORING & EVALUATION

Why you need to monitor and evaluate, the difference between them and an explanation of our approaches.

31

SECTION 3: THE IMPACT OF THIS PROGRAMME

32

IMPACT

What was the impact on learners, on UCEP, on industry and on the government?

34

SECTION 4: ANNEXES



Why should you read this booklet?

This booklet captures something that has not been done before in Bangladesh; integrating people from underprivileged groups into nationally-recognised mainstream skills development programmes (including women into non-traditional trades) and ultimately into decent work opportunities.

It captures the cooperation of a leading national non-government training organisation, a government-training organisation and a group of committed employers – and it lays out, step-by-step, how you can do it.

We want to share this model with you because we want you to get involved with skills in Bangladesh. Why?

If you are a training institution—delivering nationally-recognised qualifications and a becoming a registered training organisations gives your learners confidence that you are delivering quality skills that are demand-driven, so they know that they will get jobs after graduating. Partnering with non-government organisations can help you more effectively include learners from underprivileged groups. Partnering with employers ensures that your learners will get jobs.

If you are an employer—partnering with training institutions delivering nationally-

recognised qualifications means that you will be able to recruit workers who are already skilled, and you will be able to easily identify their level of competence by their qualifications. Getting involved in your sector's Industry Skills Council means that you can have input into what skills are being taught by institutions in your industry, so you can almost tailor-make your future employees.

If you are an NGO, donor or business that wants to do good—skills are a key priority of the government and a sector in which we are likely to see many changes in the coming years. Skill development is one of the most effective ways to reduce poverty in any country.

The Government of Bangladesh believes that Bangladesh's approach to skills development can be reformed, and with the support of industry, public and private training institutions and non-government organisations, it can become the flexible, accessible and demand-driven system that the country needs.

The model described in this booklet was developed under the TVET Reform Project, an initiative of the Government of Bangladesh (GoB). It is funded by the European Union (EU) and executed by the International Labour Organization (ILO) in partnership with government agencies.

Section 1: Introduction

What is the TVET Reform Project?

The BDT 136 Crore Technical and Vocational Education and Training (TVET) Reform Project is an initiative of the Government of Bangladesh, funded by the European Union and executed by the International Labour Organization.

The Directorate of Technical Education (DTE), Bangladesh Technical Education Board (BTEB) and the Bureau of Manpower, Employment and Training (BMET) are the primary government agencies executing reform.

Reform recognizes that to reduce poverty and mitigate the limitations of inadequate school education, more people need to have access to both formal and informal TVET training to develop skills that will lead to employment.

Reform will ensure Bangladesh's competitiveness in the global market by improving the quality of vocational education and training. Skill development is essential for raising the standard of living for workers, especially women, ethnic minorities and other disadvantaged groups.

About the ILO

The International Labour Organization (ILO) is the only tripartite UN agency with government, employer, and worker representatives. This tripartite structure makes the ILO a unique forum in which the governments and the social partners of the economy of its 183 Member States can freely and openly debate and elaborate labour standards and policies.



SKILLS FOR CHANGE: RABEYA AKHTER, MOTORCYCLE SERVICING

“I did not have the chance to finish school so I have made my own opportunity. Eventually my dream is to finish my general education as well and get a job in one of Walton’s showrooms so that I can use all my skills and technical knowledge. I want to tell girls that technical trades are not difficult and there are many opportunities; you just have to do it. You can get married but you should get a job – for you, and for your country. My parents are trying to find me a husband but first I will inform him, and his family, that I have done this job, I can do this job and I want to keep doing this job. If they agree, then I will marry.”

Even in countries with the most progressive equal rights agendas, it is still uncommon to walk into a mechanical workshop and see a young woman’s smiling face pulling a motorcycle apart, explaining to a customer what is wrong with their engine. In Bangladesh, where women’s involvement in technical and vocational education and training ranges from 9% to 13% in public institutions, the situation is no different.

Rabeya Akhter was a girl who could always be found outside, pulling whatever she could find apart and putting it back together. She was the youngest of three daughters; her father was a rickshaw-technician and her mother worked at home fitting stones into earrings. She often followed her dad as he worked and discussed her dream of working in a technical job with him and her cousin who was studying to be an engineer. He told her that if she tried her best, even though she was a girl, she could do it. Rabeya enjoyed her education and worked hard until, in Class 5, her father left the family and went back to his first wife. Rabeya’s mother, who earned just 1000tk/month (USD 12), had no choice but to ask her daughter to stop her education and assist her with stone fitting at home. Fitting stones into earrings was a task that was not only repetitive, but Rabeya also made a mere 700tk/month, meaning there was no way she would ever be able to go back to school.

When Rabeya was accepted into the ILO/UCEP apprenticeship programme, she travelled long distances by herself to get there, facing constant criticism, taunts and abuse. Her unrivalled determination got her through and she successfully completed her four months off-the-job training early. She re-enrolled into general education one day per week and was accepted into a position at Walton, one of Bangladesh’s largest mechanical service organisations, as their first female mechanical apprentice. Dodging eve teasing, marriage proposals and stereotyping, her supervisor says that she is now known as more reliable and thorough in her work than her male co-workers. Rabeya has become a valued part of the Walton team and beyond that; a role model for women in Bangladesh. She has challenged gender stereotypes and succeeded, and is now encouraging other women to do the same.

Rabeya is a skilled young female ILO/UCEP apprentice taking part in a pilot programme of the TVET Reform Project, an initiative of the Government of Bangladesh, executed by the ILO and funded by the European Union.



“Despite considerable economic growth in Bangladesh over the last decade, significant gender gaps persist in the labour market in terms of labour utilization and where and how women and men work.

The areas in Bangladesh in which employment is readily available to women tend to be low-paid and informal, leaving them in unsecured, vulnerable situations compared to male workers.

The up skilling of females will unlock their full productive potential; programmes like this challenge gendered stereotypes in profession and take steps towards a more secure future for women in Bangladesh’s workforce.

This model has been developed in close collaboration with BMET and UCEP and we look forward to seeing it replicated across Bangladesh in training centres run by government, private sector and NGOs.”

***Ms Begum Shamsun Nahar, Director General
Bangladesh Bureau of Manpower Employment and
Training (BMET)***



EDUCATIONAL PROFILE: BANGLADESH

Bangladesh is a developing country in the South Asia region that is home to more than 150 million people. With 31% of the population living below the poverty line (US \$1.25 per day), the country, though rich in culture, is lagging behind in health, education, employment and social security services.

Stuck in low-skilled, low-paid work opportunities

The government, in conjunction with various non-governmental organisations, exercise great effort to ensure that education is available to children across Bangladesh. Primary school enrolment rates are high, showing that families have the intention to educate their children. The many social and financial barriers that families face however, mean that completion rates at later stages of education are much lower however.

Prior to the approval of the National Skills Development Policy (NSDP), a low level of general education presented a barrier to formal skills development as a minimum Grade 8 requirement existed for enrolment into technical and vocational courses. Unable to continue with general education and unable to enter into technical or vocational education, many young people found themselves confined to low-skilled, low-paid work opportunities in the informal sector such as breaking bricks, transport or picking through rubbish. While skilled workers were urgently needed in many industrial sectors, people with low levels of general education were unable to gain access to them.

Pre-vocational training: a win-win for employers and employees

The introduction of two pre-vocational levels in the NSDP presents a solution to this. Pre-vocational levels teach basic language, literacy, numeracy and introduction to vocational skills for work and are accessible to people with levels of education below Grade 8. The successful

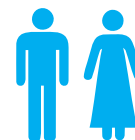


completion of Pre-Vocational Level 2 equips candidates with the skills and knowledge to enter into the National Certificate Level 1, the first level of formal technical and vocational education in the newly developed National Technical and Vocational Qualifications Framework (NTVQF).

Pre-vocational levels are a win-win situation both for people with low levels of education and for industry in Bangladesh. They open up opportunities for individuals to enter formal skills development courses, improve access to decent work opportunities and expand the country's skilled workforce

The model described in this publication shows how pre-vocational levels were used in the motorcycle sector to mainstream low-skilled learners into employment in reputable organisations and it explains how your organisation can do the same.

GENDER PROFILE: BANGLADESH



Bangladesh has made some great strides in promoting gender equality in the education sector by managing to close the gender gap in gross and net enrolment ratios in primary and secondary education. However, this success has not been replicated in achieving gender parity in the TVET sector. Some of the current challenges include:

Women's participation in technical and vocational education and training in Bangladesh is strikingly low, ranging from 9% to 13% in public institutions and 33% in private institutions; the average is approximately 24%. The National Skills Development Policy for Bangladesh clearly states “given the current low participation rates of women in skills development, special efforts are necessary to correct this gender imbalance, particularly in the formal training system”.

Gender inequalities and stereotyping characterise Bangladesh's TVET sector, reinforcing gender division of labour in occupational segregation in the labour market which is a constraint for women to enter into new, non-traditional and higher income professions. Girls and boys are channelled into different paths, usually resulting in different outcomes and in particular different earnings. The social mindset of families and women's own views need to be changed, to remove gender disparities in access to opportunities and receiving training in diversified skills so that the life status of both women and men is enhanced.

Not only do women in technical and vocational schools tend to find themselves underrepresented, but also this is also further reflected in their disproportionate numbers in the overall labour economy. Women's overall involvement in Bangladesh's workforce remains at roughly 36% for women

ages 15-59 as of 2010. In addition, only about 10% of women who are employed earn wages for their labour and on average, women earn approximately 60% of what men do in similar jobs in the market.

As a majority of women enter into non-formal work agreements and hazardous and exploitative forms of employment, opportunities for skills training and development through structured programmes and educational institutions are few. Women in Bangladesh are most often employed in manufacturing (i.e. ready-made garments); as household and domestic workers; or the agricultural sector, and are rarely provided with any formal training for these occupations. Instead, they learn through non-formal or informal practices which do not monetarily value their participation in the workforce.

Responding to these challenges, the Government of Bangladesh committed to addressing the structural, direct and indirect barriers that impede the full participation of women in the economic sphere by ratifying ILO Conventions 100 on Equal Remuneration in January 1998 and 111 on Discrimination (Employment and Occupation) in June 1972, and the United Nations Convention on the Elimination of All Forms of Discrimination (CEDAW) in November 1984.

24%

Average women's participation in vocational education and training

10%

Percentage of women who earn wages for their employment

36%

Women's overall involvement in the country's workforce

60%

Percentage of men's wages that women, on average, earn for similar jobs.

In order to support the government to fulfil its commitments, not only does this pilot initiative open up opportunities for people with low levels of education, but it also opens opportunities to address gender stereotyping. Enrolling women in non-traditional trades, supporting them throughout off-the-job training and then ensuring suitable work placements for on-the-job training provides a model to both public and private organisations for addressing occupational segregation in Bangladesh.

Section 2: How to provide inclusive training

OUR 1-YEAR TRAINING TIMELINE





CONSULTING STAKEHOLDERS

1

We started by asking industry what skills they needed in their workers, what skills they would want apprentices to have, and what already existed that was working. Over several months, we consulted public and private institutions, industry representatives, and non-governmental organisations.

Identifying sectors with great training potential

We combined desktop meetings and field visits to help us understand what would be needed to ensure that people with low levels of education could enter skills development programmes, and to understand the barriers facing females wanting to enter non-traditional trades in Bangladesh.

Extensive situational research was also conducted into gender and education statistics, labour, training and employment in Bangladesh. The quality of the consultation and research conducted was integral in developing a relevant, industry-oriented, flexible programme.

We consulted informal shops in the sectors of refrigeration and air conditioning (RAC), electrical, motorcycle servicing, and tailoring and dress-making.

Consultation was conducted not only in Dhaka, but also in a range of other areas with thriving motorcycle trades in Bangladesh. Specifically, visits were made to informal motorcycle mechanic shops in Jessore, Khulna, Bogra and Chittagong. Vocational training centres and non-governmental organisations were also consulted to obtain a clear picture of the range and effectiveness of skills development programmes operating in Bangladesh.

Why we selected the motorcycle-servicing sector

After looking into these different sectors, the motorcycle-servicing sector was selected for the pilot programme. The following factors contributed to this decision:

- » Availability of employment after graduation.
- » Demonstrated sector enthusiasm for including females and persons with low levels of education.
- » Industry need for skilled workers and scope (through training) to meet this need.
- » Positive growth prospects for the industry.

Next, we looked for an existing programme that focused on employment of persons with low levels of education and addressed gender stereotyping by including women in non-traditional trades. In order to plan the training methodology for the pilot, we wanted to look at a current programme and find out what had been tried, what had worked and, most importantly, what had not worked in the context of Bangladesh.

We consulted informal shops in the sectors of refrigeration and air conditioning (RAC), electrical, motorcycle servicing, and tailoring and dress-making. Eventually, we selected the motorcycle-servicing sector for the pilot programme.

“This pilot competency-based motorcycle servicing programme has established that disadvantaged and low educated people can become skilled workers through quality institutional training and apprenticeships. Strong linkages between UCEP and the motor cycle industry have been developed through the programme which will allow us to work together to meet the demands of the motor cycle industry. It has also proved that female students, with adequate support, can succeed in non-traditional trades.”

-- Engineer Md. Ayub Ali Sarker, Programme Officer (Technical Education), UCEP Bangladesh

Finding success by looking to Underprivileged Children's Education Programmes

We focused on the technical skill development programmes running at the Underprivileged Children's Education Programmes (UCEP) Technical Schools across Bangladesh. The aim of the schools is to improve the employment prospects of underprivileged young people by equipping them with skills. The types of trades that are taught in the schools correspond to the demand of the employment market in the area where the school is located.

Running in two shifts per day, so that working children are able to attend, the total enrolment in all ten of the schools is over 5,000 students. Attendance and dropout rates are 95%+ and below 3% respectively and UCEP students secured the four positions of 1st, 2nd, 3rd, 4th in GPA-5 category along with 100% success rate in the SSC (Vocational) Bangladesh Technical Education Board examination in 2012.

Building on the UCEP automotive mechanics course

UCEP was already running an automotive mechanics course but it was only at the Secondary School Certificate Vocational (SSC Voc) level. The pilot would build on the success of this course and add value to it by developing a model which:

- » **promoted the inclusion of female students in the trade to work towards addressing occupational segregation of males and females in the workplace**
- » **linked the skills developed to nationally-recognised competencies under the National Technical and Vocational Qualifications Framework (NTVQF) in the recently-approved National Skills Development Policy (NSDP). This linkage would ensure that participants would gain access to the formal training system in Bangladesh upon completion.**

The reason that the course focused on motorcycle servicing rather than automotive servicing was that demand exists for motorcycle servicing across Bangladesh, whereas the demand for automotive servicing is concentrated more in urban areas and is not as high in rural areas.

YOUR CHECKLIST FOR CONSULTING STAKEHOLDERS

Comprehensive consultation should be undertaken with industry and training providers, including identifying existing local programmes.

Consultation should not only comprise of desktop research but also field visits.

Training should be conducted in an industry with a demonstrated current and/or future need for skilled workers, to ensure employment after graduation.

OUR LESSONS LEARNED

Consider the sustainability of your programme from the start.

- a. **There are two parts to sustainability**—on an individual level and on a programme level.
- b. **On an individual level, make sure that the skills that a trainee is equipped with will actually benefit them beyond the programme.** What are the chances of these skills leading to a decent job, and of the trainee staying in the job long-term?
- c. **On a programme level, make sure that the initiative is viable long-term.** Is it financially sustainable, are ongoing human resources available to continue it?



HOW TO MOBILIZE PARTNERS

2

The next step was to select the government and industry partners. This was done early to ensure that all parties were involved in the planning stages as well as in the implementation stages, which was crucial for ensuring that the programme was appropriate for replication in a government training institution.

Our finalised partnerships

Underprivileged Children's Education Programmes focuses on improving the futures of the urban working children in Bangladesh. The organization is a hub of over 45,000 working children striving to gain marketable skills through general education and technical training. The objective of UCEP programmes is to improve the socio-economic status of the urban poor and support industrial growth by generating skilled manpower.

UCEP has a global reputation for its unique model of human resource development and its success has enabled it to be listed twice in the UN SCAP's Compendium of Centers of Excellence in HRD Research and Training.

Bangladesh-German Technical Training Center is a government-run training institute located in Dhaka that offers a wide variety of technical courses, including a motorcycle mechanics course.

The centre expressed an interest in converting its current courses from a traditional to a competency-based approach (consistent with the recommendations for reform expressed in the National Skills Development Policy) and a commitment to replicating the pilot programme.

Uttara Motors Service Ltd, Walton, TVS and HS Enterprise were the four industry partners chosen to host apprentices for the on-the-job component of their training course. These partners were chosen for their approach to workforce development, their willingness to employ apprentices after training, their approach to continuous improvement and their overall professionalism and flexibility.



YOUR CHECKLIST FOR HOW TO MOBILIZE PARTNERS

Partners must be selected carefully and must be willing to make a sustainable commitment.

If the industry and/or training provider does not have expertise in working with female students, advice and support should be sought from a specifically gender-focused organisation and this organisation should be involved in key decisions.

One of the partners should have the capacity to deliver life skills training sessions to complement technical skills development.



OUR LESSONS LEARNED

Partners must not only be willing to run your programme, but to advocate for it.

- a. **Skills training is still not seen by many in Bangladesh as a career path worth pursuing.** Replicating organisations must ensure they have the capacity, or they are partnering with an organisation who has the capacity, to work with the families of the trainees to educate them about the importance of skills. They need to be constantly repeating the message that skill training may mean less income in the short term, but it will pay off in the long term with improved job prospects and access to higher level work opportunities.



CHOOSING THE RIGHT TRAINING & ASSESSMENT APPROACH

3

Now that the sector had been decided and the partnerships needed to run the pilot had been established, we planned a programme outline. The pilot would focus on breaking gender stereotypes and training persons with low levels of education for work in the motorcycle-servicing sector.

The pilot would adopt a dual training approach with two stages of competency achievement.

Dual training approach

Stage 1: Off-the-job training



6 months of skills training and formative assessment conducted in the UCEP Mirpur Technical School

After summative assessment/testing, learners could exit at this point, graduating with an NTVQF Pre-Vocational 2 Certificate.

Stage 2: On-the-job training



4 months of being employed under supervision at leading motorcycle-servicing workshops across Bangladesh.

Summative assessment/ challenge testing at UCEP, then learners graduate with an NTVQF Level 2 Certificate as well as workplace experience.



Dual assessment approach

1

Part 1: Formative (continuous)

Brief, regular, informal assessments, mostly through specific task-related questions and practical skill applications, inform both trainers and trainees about student understanding at points where timely adjustments can be made.

Undertaken on a continuous basis as new skills are learnt and practiced, formative assessments provide the information needed for the trainer to adjust teaching and learning while it is happening.

2

Part 2: Summative (final)

Conducted at specific times (at the end of a unit or a course) to determine what skills students have achieved at a particular point in time. In NTVQF nationally recognized courses in Bangladesh, summative assessments take the form of challenge/skills tests and tests are the same for all learners nationally.

While summative assessments are important because they give a definitive answer about whether or not a learner is competent, they should not be the only means of assessment. If assessment is only done at the completion of learning, a crucial opportunity to adjust learning to address possible gaps in understanding is missed, and there is an increased chance that learners will be assessed as not yet competent. Therefore formative assessment is important as well.

Choosing the right course length (daily)

Off-the-job component

As the learners had work and family commitments to maintain in addition to participating in the training course, it was decided that training would go for approximately four hours per day, from 8:30am–12:40pm. This matched the timing of UCEP's morning shift and meant that trainees could utilise the existing transport that UCEP provided for their students.

The timing was crucial to the success of the programme because it allowed for flexibility and minimised absenteeism by allowing the trainees sufficient time to earn extra income outside of course hours, assist in the home and/or take care of family members. This was particularly important for the female students who often had specific family responsibilities; the shorter initial hours were a way to ease parents into the concept of their daughters working away from the home for long periods.

On-the-job component

When trainees entered workplaces, their commitment increased to eight hours per day, from 9-5pm. This was to minimise any potential discrimination between trainees and other employees, and to get them used to a standard eight-hour workday as quickly as possible.

“This model presents a unique opportunity for industry, non-governmental organizations and the government to work together to solve two problems at once: the lack of skilled workers in the country, and the economic disparities that exist between people with high levels of education and people with low levels of education in Bangladesh.”

--Rajwant Singh, General Manager (Service), TVS Auto Bangladesh Ltd



YOUR CHECKLIST FOR CHOOSING THE RIGHT TRAINING & ASSESSMENT APPROACH

Thorough programme planning must be undertaken before any decisions are made, with clear goals and objectives set.

A skill needs analysis must be undertaken, and this should be reviewed with industry representatives to determine feasibility.

The training approach should provide trainees with the opportunity to develop skills in both off-the-job and on-the-job settings.

The assessment approach should take into account both formative and summative assessment, to ensure that improvements to teaching methods can be made in a timely manner.

Programme duration is an important consideration but existing institutional training programmes (generally lasting more than two years) need not to be used as a guide.

Course length (daily) should consider trainees' potential existing work/family commitments.

Efforts should be made to link the course to the NTVQF to provide career progression opportunities to graduates. This could include collaboration with industry bodies and BTEB to develop of units of competency and competency skills log books.

OUR LESSONS LEARNED

Incidental costs must be considered and minimised where possible.

- a. **After the first batch of trainees graduated, a second batch was organised and a number of changes were made.** One of the changes was to significantly reduce food/transport allowances for trainees. As a result, the trainees' attendance in the workplace dropped to 30%. This was because, depending on the distance of the workshop from their home, they were spending a large percentage of their salary on transport costs, and so their families did not see the arrangement as viable any more. For organisations replicating this model, this will need to be considered; either the distance between workshops and the trainees homes must be minimised, or support must be provided by the training provider, the work place or another organisation.

4

CHOOSING THE RIGHT VENUE & EQUIPMENT

Before procuring equipment, extensive consultation was undertaken with UCEP technical staff, gender experts and current industry representatives. Both the UCEP Mirpur Technical School and the motorcycle servicing workshops were taken into consideration.

Stage 1 venue: UCEP Mirpur Technical School

As UCEP integrates female students into their current programmes, gender-friendly facilities such as separate washrooms and separate prayer rooms already existed. Training space set aside for automobile training was divided and, from this, a space was designated specifically for the motorcycle-servicing course. Requirements were as follows:



Designated training space. UCEP had an approximately 5400sft space with a store, office and workshop set aside for training apprentices in automobile servicing. From that area, 900sft was set aside specifically to create a designated space for training apprentices in motorcycle servicing. Taking into consideration the space needed for tools and equipment (including the actual motorbikes), 900sft was sufficient to accommodate the 16 apprentices.



Current industry tools and equipment. After extensive industry consultation to ensure that the tools and equipment procured were currently in use in the industry, a range of 50 different items were purchased from reputable manufacturers in Taiwan, Germany, India, China and Japan. For a complete list of the items and their specifications please see Annex C.



Current industry practice models. To enable trainees to develop and practice their skills on popular motorcycle models which are currently being used in Bangladesh, five second hand motorcycles of five different brands were purchased. These were TVS Victor GL-100 CC, Bajaj 4S Champion-100 CC, Honda CG- 125-125 CC, Yamaha RX- 100-100 CC, and Suzuki – 4XX-100 CC.



Adequate lighting and ventilation. The training room had windows on one side which were open most of the time, allowing natural dissipation of heat and fumes. This is important because trainees are working with substances such as fuel which can be potentially hazardous when confined in a small space. If natural ventilation is not possible, this must be accounted for. The room was well-lit naturally and therefore only a minimal amount of energy-saving fluorescent tube-lighting was needed. Again, this may not be available in other institutions will need to be taken into account.



Safe storage of tools and equipment. To ensure the safe storage of the newly purchased tools and equipment, shelves, a display board and a white board were purchased for trainees to use. This ensured that trainees were taught to respect tools and keep them in an orderly manner, as well as minimizing any opportunities for the tools to get damaged or stolen.



Reliable power supply. As a number of the new tools were electrically powered, a reliable electricity supply was needed. Considering load shedding in Bangladesh, a generator was therefore necessary.

The UCEP building already had a central generator, properly designed electrical circuit boards and a changeover switch for generator to commercial power supply and reverse transfer of power installed. This meant that in case of power failure, trainees would be able to continue their work without interruption.

It is important to remember that special training facilities do not have to be built in most cases; existing facilities just need to be assessed and modifications made if necessary.

Stage 2 venue: Various industry workshops

The workshops chosen for the pilot already had females working in them, not in mechanical servicing roles but in roles such as sales, parts provision and customer service. This meant that they already had separate washrooms and separate prayer rooms. In placing the trainees in the venue, no significant adjustments were needed, however much work was done in both venues in terms of capacity building and training of staff involved; these aspects are outlined in Section 9.

Replication of the training course in venues that do not already accommodate females would need consideration of the following factors:

Access to premises. How do trainees get to and from their residence to the premises? Safe entry/exit to the

premises or secure accommodation must be ensured, particularly for female trainees.

Adjustments to facilities. Do separate wash rooms or prayer rooms need to be created?

Adjustments to staffing. Are other female workers employed in the organisation, preferably in higher roles? If female students are having issues in the workplace, who would they feel comfortable speaking with?

The training centre as well as the workshops were also thoroughly assessed for occupational safety and health hazards, which were then minimised as much as was possible. These included inherent risks in use of tools (personal protective equipment was made available) and trip hazards arising from cords running across floors (cords were taped down). It was also ensured that well-equipped first aid box/s were easily accessible.



YOUR CHECKLIST FOR CHOOSING THE RIGHT VENUE & EQUIPMENT

All potential venues used in the programme (off-the-job and on-the-job) should be assessed for occupational safety and health hazards and adequate ventilation and lighting.

Access to premises, adjustments to facilities and adjustments to staffing to ensure a safe and gender-friendly environment should be ensured.

Availability of designated training space (which also accommodates tools/equipment and training models) should be considered.

Tools, equipment and training models should match those currently used by industry to ensure a smooth transition into employment. Safe storage of these should be ensured.

A reliable power supply should be ensured, to minimise the potential disruption caused by electricity cuts during the course.



OUR LESSONS LEARNED

Consider the ongoing relevance of equipment, and also ongoing maintenance costs.

- a. **If you are conducting skills training out of a workplace (i.e. in a training centre), try to match your equipment with what industry is using, and, if possible, what they will be using in the future.** If trainees can learn skills using the same equipment used in industry, this will help to ensure a smooth transition to the workplace once they finish training. Consider how long it will take before the equipment will be outdated and consider this potential future cost when budgeting
- b. **Capital costs will only be incurred once, to ensure sustainability, ongoing maintenance costs must also be factored in.** A simple example is a generator—the purchase is a significant cost, but fuel and repairs are also significant and essential to factor in from the beginning.

5

THREE WAYS TO INVOLVE INDUSTRY



“I appreciate the initiative taken by the ILO in partnering with UCEP to build the skilled workforce in Bangladesh’s motorcycle sector. The industry is currently experiencing a severe shortage of workers so many local businesses will benefit.

The only improvement we could see would be to increase the institutional duration from four to six months, to further raise the confidence level of the trainees. I am wishing for the success of this programme.”

*-- Mir Md. Golom Faruque, Deputy Director
R.B. Group (Walton)*

Industry involvement was vital to the success of this programme; it was ensured that representatives of industry were involved in all consultations and major decisions.

Developing the course to match industry needs meant that the skills developed not only filled the skill gaps that existed in workshops, but the probability of employment of trainees after graduation was greatly increased. In this pilot, industry provided:



Expertise and personnel in each stage of programme development and implementation



ILO and UCEP staff with the opportunity to refresh their knowledge on the current needs of motorcycle servicing workshops.



The opportunity for students to visit industries/workshops during their off-the-job training, to get a hands-on understanding of what their future work environments would be like, and introduce and orient trainees with industry norms, common processes, quality standards, occupational safety and health expectations, etc. Industry visits also provided learners with an opportunity to practice some of their new skills in a ‘real’ setting.



YOUR CHECKLIST FOR INVOLVING INDUSTRY

Industry must be involved at every stage and included in every key decision.

Industry and training institutions must be willing to maintain close contact at least throughout the duration of the programme. This includes allowing instructors to undertake industry attachments and allowing industry visits to take place.



OUR LESSONS LEARNED

Importance of training institution/industry linkage.

- a. **Strong partnerships between industry and training institutions are essential if training and assessment programmes are to lead directly to employment.** Training institutions and employers must ensure that gender equality and low literacy and numeracy are taken into account and that adequate support is available if issues arise, but major restructuring of existing programmes/human resource arrangements is not necessary.
- b. **Benefits of linkage for industry = continuous supply of skilled trainees who are competent in the skills demanded by markets.**
- c. **Benefits of linkage for training institutions = opportunities for staff up skilling, relevant training course content and guaranteed employment opportunities.**
- d. **In many industries across Bangladesh, if businesses want to hire workers, they have to take into account that the new employees will be unskilled or only semi-skilled.** This means that employers will need to invest a significant amount of time and effort before their new employees reach a productive level. Stronger linkages between industry and training institutions can alleviate this burden, and, through promoting apprenticeships, can sustainably build Bangladesh's workforce to meet the demands of national and international markets.

6

SKILLS UPGRADING: HOW WE MADE THE PROGRAMME SUSTAINABLE

Traditional training is based on knowledge and understanding.

The emphasis in competency-based training and assessment (CBT&A) however is not just on knowing and understanding, but on performing.

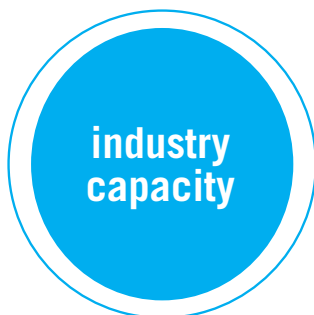
Outcome-driven, practical, relevant training

CBT&A methodology is focused on developing skills that have been chosen and agreed on by industry. Instead of using a theoretical approach, competency-based training and assessment is a practical approach that equips students with the workplace-ready skills that industry needs. The outcomes of competency-based training and assessment are clearly stated at the beginning of training, so that:

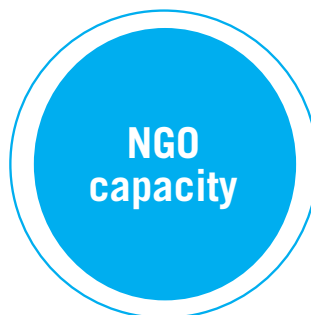
- » **Learners** know what they have to be able to do
- » **Trainers** know what training or learning has to be provided
- » **Organisations** know the skill level required by their people.

An imperative factor in the success of this course was building the competency-based training and assessment skills of the staff involved. It was ensured that staff had the skills to use learner centred, interactive and performance based methods rather than the teacher centred, lecture oriented methods currently used in Bangladesh.

Training the staff involved two important elements; ensuring that they understood competency-based training and assessment methodology and that their technical skills were relevant to the current needs of the industry.



Staff members from Uttara Motors were actively involved in the development of the Competency Skills Log Books that were used in the programme.



UCEP Instructors completed an intensive CBT&A training programme as well as being involved in the development of Competency Skills Log Books. They were also provided with two weeks of industrial training by Uttara Motors Service Centre.



BG-TTC Instructors completed an informal intensive CBT&A training programme as well as being involved in the development of Competency Skills Log Books. During the off-the-job component of the programme, instructors spent two days per week actively participating in the training at UCEP Mirpur. During the on-the-job component, they visited the trainees in the informal workshops regularly.



Formal and informal training programmes provided by the ILO to boost the capacity of all partners

- » The importance of the recently-approved **National Skills Development Policy (NSDP)** and the implications of this on skill development in Bangladesh.
- » The importance of the **National Training and Vocational Qualifications Framework (NTVQF)**, a major component of the NSDP, and the implications the framework has on training institutions across Bangladesh.
- » The introduction of **competency-based training and assessment methodology** to Bangladesh, what it is and the benefits it offers to trainees, trainers, organisations and the sector as a whole.
- » Specific actions which institutions would need to take to gain **national accreditation, registration and certification** under the new NTVQF.
- » An overview of the role of **Competency Skills Log Books** in competency-based training and the benefits that they offer to all parties.
- » **Gender-specific training** including introducing the concept of women working in non-traditional roles in Bangladesh. This concept was particularly new to industry and so specific guidance and support was needed throughout the programme on how to ensure a gender-friendly workplace.
- » **The importance of building not only the 'hard (technical) skills' of the trainees, but also their 'soft' skills**, such as effective communication, language, literacy and numeracy abilities, budgeting skills and organisational abilities.
- » **Occupational health and safety** issues in the workplace and how to implement small, low-cost, practical changes that significantly improve working conditions for all.
- » The importance of maintaining **specified working hours**.
- » Strategies for effectively engaging and **training students with low levels of education**.

Important to remember

UCEP were accustomed to the concept of gender equality as well as working with young people with low education levels so we did not need to provide additional training. We did have to provide training to the informal workshops where trainees undertook their on-the-job training however, as while they were accustomed to having females in the workplace in sales/administrative roles, their involvement in the actual workshop areas was very new. **If industry partners were not accustomed to gender equality, intensive support and training would need to be provided.**

It is important that staff members are recruited for the entire programme and staff turnover is not an issue, so that consistency is maintained throughout the programme. If inconsistency arises, training of new staff and re-familiarisation with trainees can significantly disrupt the programme and delay progress.

“Inclusive programmes give underprivileged students a feeling of worth as they become proud, skilled workers who are wanted and genuinely needed by the country. They also have the means to become financially solvent.”

–Khondoker Abdul Bari, Instructor (Automobile), Bangladesh-German Technical Training Center



YOUR CHECKLIST FOR SKILLS UPGRADING

At least one instructor should be trained in competency-based training and assessment methodology and should undergo at least one industry attachment. Under the new National Skills Development Policy, a CBT&A-qualified/trade-qualified instructor will be required for accreditation.

Training sessions should be provided to partners on the principles and benefits of CBT&A, the role of Competency Skills Log Books and other relevant skills development topics. Training and support will also be needed on gender equality and working with people with low levels of education if the industry body or training institute are not accustomed to running inclusive programmes.

To minimise disruption during training, consistency should be maintained in staffing throughout the programme.

Instructors, supervisors and managers need to be sensitive and respectful of the needs of trainees and it is imperative that they are provided with training on this if they do not have previous experience.



OUR LESSONS LEARNED

Staff involved must have the skills to run the programme, but extra staff should also be involved.

- a. **Not only should the staff directly involved in the programme know how to run it, but other staff should also be equipped with the same skills, to ensure sustainability.**
This is particularly important if there is high turnover rates are an issue.
- b. **In many industries across Bangladesh, if businesses want to hire workers, they have to take into account that the new employees will be unskilled or only semi-skilled.**
This means that employers will need to invest a significant amount of time and effort before their new employees reach a productive level. Stronger linkages between industry and training institutions can alleviate this burden, and, through promoting apprenticeships, can sustainably build Bangladesh's workforce to meet the demands of national and international markets.

UCEP operates multiple training schools in Bangladesh and it is in these centres that pre-screening for training suitability was conducted. As family influences are very strong in Bangladesh, parents were also consulted. This ensured their initial consent and also their involvement and participation in their child's skill development in the longer term. After the pre-screening process identified a list of potential candidates, the following process was adopted for this course:

information session

Firstly a session was held at UCEP Mirpur and all interested potential trainees were invited to view the premises, meet students in other courses, speak to trainers and learn about the course before they applied to be part of it. Extra efforts in recruitment processes saved time in the long-term, significantly reducing potential drop-out rates.

In general, the more information that is made available to trainees before they apply for and commence courses, the more dedicated they are likely to be during the course.

selection criteria

Age. 17.5 years or above, as 18 is the minimum age for employment in the industry (National ID/Birth Registration certificate as evidence).

Education. As the exit level after the first stage (off-the-job) is NTVQF Pre-Vocational Level 2, trainees' initial educational level should not be below Grade 3. As the focus is on underprivileged people however, this programme was particularly targeting trainees who had not been able to complete general education past Grade 7.

Gender. Females were actively encouraged to join the course.

Background. Ultra-poor/underprivileged .

Trade skills. Trade-related skills were not mandatory but were preferred.

LLN skills. Basic level of Language, Literacy and Numeracy skills.

Motivation. Personal motivation

interview

A test and an interview were conducted with each of the prospective trainees. The interview panel included representatives of the ILO, UCEP and industry, and was an opportunity to meet trainees in person and discuss the course further.

personal assessment

Representatives from ILO and UCEP then met with senior management representatives to collaboratively agree on final identification of the participants. A training needs assessment was then conducted to identify any gaps in basic language, literacy and numeracy which would need extra effort.

induction / familiarisation

Trainees were allowed to stay in UCEP for seven days for acclimatization and orientation to their new environment. During this time, instructors monitored their punctuality, familiarised them with the programme and ensured they understood about the support available.



Particularly with the female students, who faced sexual harassment—often known locally as eve-teasing—gender stereotyping and increased marriage proposals due to their increased economic value, the support of the trainees' families proved essential in ensuring their successful completion.



YOUR CHECKLIST FOR TRAINEE RECRUITMENT

A planned recruitment process must be followed, including selection criteria, interviews and assessment. This will maximise successful completion rates.

Families of trainees should also be involved in recruitment, which will help to ensure that trainees have a strong support network both during training and into employment.

Local non-government organisations and/or community level representatives should be included in recruitment, to ensure the accuracy of information provided by trainees.

An induction programme should be organised before trainees start the course.



OUR LESSONS LEARNED

The trainee recruitment process has to be done in consultation with a local community-level organisation to ensure that trainees (particularly female trainees) actually have low education levels and are in the ultra poor category.

- a. **This pilot programme demonstrated that, through high quality, gender-friendly training and assessment programmes, women are capable of performing just as competently as men in non-traditional trade training and getting decent jobs.** One of the most basic examples of this realisation was that graduating female trainees faced increased marriage proposals. This then presented a new challenge however, because a number of skilled female trainees opted out of continuing their employment after accepting a proposal. While their families did realise the value of their daughters' work, social norms of early marriage and women only working if there was no other option prevailed.

Another challenge was female trainees who did not get married but did not continue their employment because their families could financially support them, and therefore did not see a need for them to pursue work outside of the home. The families allowed their daughters to enter the programme believing that after the training they would earn a lot more than they could working at home. When they found out that apprenticeships are a long-term pursuit and initially offer low wages, they were not interested in pursuing them further.

- b. **A third challenge was that a number of female trainees decided to take a third path that was also not anticipated; completing general education.** This was because general education is, like being married, generally valued higher by families than attaining employment is. The families of the trainees were financially able to support the further education of the trainees and so that is what they decided to do.
- c. **In conclusion, we found that if the women were not relied on to bring money into the family, their likelihood of pursuing skilled employment in a non-traditional trade after training was low.** After speaking to the families of the female trainees, we found that the income and expenditure of most was actually much higher than the ultra poor category which they had initially reported being in. It was also found that all of the female apprentices had completed Grade 8 before joining the programme, a fact that was not revealed during the recruitment process (criteria clearly stated below Grade 8 but above Grade 5). Although marriage and further education can be positive outcomes in themselves, tightening the recruitment process would definitely assist in improving the numbers of women employed in non-traditional trades.
- d. **To ensure that replicating organisations do not make this mistake, selection should not just be made at the institutional level, but at the community level.** Community leaders and/or representatives of local non-government organisations should be involved to ensure the accuracy of information provided.

CHOOSING THE RIGHT COURSE CONTENT

8

The process for the development of course content was comprehensive, as we wanted to directly link the current and future needs of the motorcycle servicing sector with units of competency in the NTVQF. An emphasis was placed on multi-skilling, to ensure the trainees could be flexible in that workplace and also in future workplaces. The process followed is outlined below:

1

Before development of any material began, a thorough analysis of existing training materials was undertaken, to minimise any possible doubling of effort.

2

Then, a basic skill need analysis was conducted to specifically identify what a person needed to know and be able to do to work in that job. Consultation included the following groups:

3

Industry (both formal and informal): Master Crafts Persons, Business owners, current and past apprentices and workers

Government of Bangladesh representation: Curriculum staff from the Bangladesh Technical Education Board (BTEB), Instructors from Vocational Training Centres

NGO representation
Management staff and instructors from UCEP, current UCEP students

4

These tasks were converted into NTVQF units of competency. This included separating them into groups to make different competency levels (in this case, Pre-Vocational National Certificate Level 2, National Certificate Level 1 and National Certificate Level 2). Classifying the units was done by examining real workplace roles and looking at other existing certificates in similar occupations.

5

Drafted units of competency were shared at a stakeholder workshop. Feedback was gathered and discussed by non-governmental organizations, vocational training instructors and industry.

6

Units of competency were submitted for national registration through BTEB.

7

Competency Skills Log Books (CSLBs) were developed. CSLBs are used in competency-based training and assessment to record and certify skills attained during training, mainly to benefit persons with low levels of education. CSLBs outline the units of competency and support gathering of evidence for each skill by providing a way to showcase apprentices' work. This tangible record can be used to attain employment or re-employment after course completion.

The CSLB developed included all the units in all three levels. This way, apprentices could work their way through the qualifications.

For organisations considering specifically replicating this motorcycle service mechanics course, the first step would be to obtain copies of these units of competency and the CSLB, through contacting the ILO TVET Reform Project, relevant Industry Skills Council, Sector Working Committee or the BTEB. The units of competency can be used directly, in conjunction with this guide, to run a course which can be nationally accredited.



Units of Competency were developed for three qualifications; Pre-Vocational National Certificate Level 2, National Certificate Level 1 and National Certificate Level 2.

The Units of Competency that make up the Pre-Vocational National Certificate Level 2 Motorcycle Service Mechanic are as follows:

Unit code	Unit title (Generic Units of Competency)	Level
GNPV2001A1	Apply basic mathematics	NTVQF PV 2
GNPV2002A1	Apply Occupational Safety and Health (OSH) practice in the workplace	NTVQF PV 2
GNPV2003A1	Apply basic English	NTVQF PV 2
GNPV2004A1	Apply basic Bangla	NTVQF PV 2
Unit Code	Unit Title (Sector Specific Units of Competency)	Level
TRSSS1003A1	Identify tools and spares/parts for motorcycle servicing	NTVQF 1
	Use graduated measuring instruments	NTVQF 1
	Use motorcycle fasteners	NTVQF 1
Unit Code	Unit Title (Occupation Specific Units of Competency)	Level
TRSMMS1004A1	Change wheels and tyres	NTVQF 1
TRSMMS1005A1	Service motorcycle engine	NTVQF 1
TRSMMS1006A1	Replace motorcycle seals, gaskets and bearings	NTVQF 1

The Units of Competency that make up the National Certificate Level 1 Motorcycle Service Mechanic are as follows:

Unit Code	Unit Title (Generic Units of Competency)	Level
GN1001A1	Use basic mathematical concepts	NTVQF 1
GN1002A1	Apply occupational safety and health (OSH) practices in the workplace	NTVQF 1
Unit Code	Unit Title (Sector Specific Units of Competency)	Level
TRSSS1003A1	Identify tools and spare parts for motorcycle servicing	NTVQF 1
	Use graduated measuring instruments	NTVQF 1
	Use motorcycle fasteners	NTVQF 1
Unit Code	Unit Title (Occupation Specific Units of Competency)	Level
TRSMMS1004A1	Disassemble and re-assemble of motor cycle component	NTVQF 1
TRSMMS1005A1	Change wheels and tyres	NTVQF 1
TRSMMS1006A1	Service motor cycle engine	NTVQF 1
TRSMMS1007A1	Replace motorcycle seals, gaskets and bearings	NTVQF 1
TRSMMS1008A1	Service motorcycle lubricating system	NTVQF 1
	Service motorcycle ignition system	NTVQF 1
	Service battery system	NTVQF 1
	Service motorcycle braking system	NTVQF 1
	Service motorcycle fuel system	NTVQF 1

The Units of Competency that make up the National Certificate Level 2 Motorcycle Service Mechanic are as follows:

Unit Code	Unit Title (Generic Units of Competency)	Level
GN2001A1	Use English in a workplace	NTVQF 2
GN2002A1	Operate in a self-directed team	NTVQF 2
GN2003A1	Present and apply workplace information	NTVQF 2
Unit Code	Unit Title (Occupation Specific Units of Competency)	Level
TRSMMS2004A1	Service motorcycle engine cooling system	NTVQF 2
	Service electrical and electronics system of motorcycle	NTVQF 2
	Perform servicing of transmission system of motorcycle	NTVQF 2
	Service motor cycle steering system	NTVQF 2
TRSMMS2005A1	Service motorcycle	NTVQF 2



YOUR CHECKLIST FOR CHOOSING THE RIGHT COURSE CONTENT

If running the same course described in this guide (National Certificate Level 2 Motorcycle Service Mechanic):

Units of Competency and Competency Skills Log Books developed can be accessed by accessing by contacting the ILO TVET Reform Project, relevant Industry Skills Council or relevant Sector Working Committee or the BTEB.

If developing a new course for a new occupation and/or in a new sector:

The course should link with nationally-recognised qualifications from the National Training and Vocational Qualifications Framework. It should also adhere to competency-based training and assessment methodology.

Consultation with industry is needed to decide on a set of workplace skills which can be then made into NTVQF-recognised units of competency.

Repetition of skills learnt and continuous practice are essential to CBT&A training, through interactive participation. Repetition helps to build dexterity and a combination of formative/progressive and final/summative assessments build confidence.

Additional life skills training must be provided, either by industry or by a partnering organisation.



OUR LESSONS LEARNED

Low levels of education are not a barrier:

- a. This pilot has demonstrated that a mainstream competency-based programme can be reasonably adjusted to include persons with low levels of education. With the introduction of pre-vocational levels providing pathways to enter formal training without a Year 8 equivalent education, the only additional improvement that is needed is a shift to competency-based training and assessment methodology. This will ensure that more of a focus is placed on practical skills development and skills/challenge testing rather than lecture-based tuition and theoretical assessment.

“I appreciate the ILO-UCEP programme because it is working with underprivileged groups. The trainees have shown good performance at the workshop while on-the-job and we are proud to be part of the programme.”

-- Gazi Monirul Islam, Deputy General Manager (Production and Service), HS Enterprise Ltd

Monitoring and evaluation are crucial steps often missed when running training. Both of the times we ran this training course, we used monitoring and evaluation to identify and fix problems, and to review and improve on the model.

Why should you monitor and evaluate?

Monitoring and evaluation do not have to be formal processes but without doing them, even informally, it is difficult to measure success and to improve on what you are doing. The goal of both monitoring and evaluation is to provide information that can help you make decisions, improve your performance (and the performance of your trainees) and achieve the results that you and your apprentices want. Examples of this could be finding out that apprentices learn certain skills quicker in certain environments (e.g. in a training centre instead of a workplace), the different lengths of time that certain skills take to learn and even how skills can be better taught.

MONITORING

Ongoing/continuous process

Gives regular feedback on the progress being made towards achieving goals

Examples: Regularly reviewing attendance rates, looking at how quickly apprentices are learning theoretical concepts, discussing how competently they are demonstrating practical skills.

EVALUATION

Usually conducted at the end of a course/unit/programme

Helps to determine how well goals have been achieved

Examples: Asking apprentices how satisfied they are with training, discussing how impressed employers are with apprentices' skills in the workplace, reviewing how many apprentices completed the program.

Our approach to monitoring

Throughout the batches, only informal methods for monitoring were used. The emphasis was on making sure that monitoring was done regularly and problems identified were followed up quickly.

During off-the-job training, this included visiting apprentices and monitoring the trainers' preparation of lesson plans, their use of CSLBs and actively participating in both classroom-based and practical activities to monitor apprentices' learning.

During on-the-job training, this included observing apprentices in workplaces and monitoring their initial orientation processes, their progress through CSLBs and speaking to other employees to find out how the apprentices were fitting into their workplaces.

Monitoring gave us a chance to figure out what support apprentices, trainers and employers needed, and how those needs could best be met. It gave us a chance to identify problems, during both on and off the job training, and solve problems in a timely manner. Without this knowledge, simple problems could have turned into much larger issues.

Our approach to evaluation

At the end of the first batch we used an informal approach to evaluation, which was basically a meeting with stakeholders from both the on and off-the-job training components. Discussions with students were also held.

At the end of the second batch, we engaged a consultant to conduct a simple evaluation, using Participatory Rapid Assessment methodology. This more formal process helped us to identify a number of improvements we could make to the model, such as the need to engage a non-governmental or community-level organisation in the recruitment process.

At the end of the third batch, we intend to take an even more comprehensive approach to evaluation, by using the BTEB-approved tools included in Annex D.

Both monitoring and evaluation are essential. Monitoring because it provides a chance to make changes and provide support if necessary during the course and evaluation because it provides a chance to reflect, recap and look at the overall success of the course once it is complete.



Our approach to monitoring

Throughout the batches, only informal methods for monitoring were used. The emphasis was on making sure that monitoring was done regularly and problems identified were followed up quickly.

During off-the-job training, this included visiting apprentices and monitoring the trainers' preparation of lesson plans, their use of CSLBs and actively participating in both classroom-based and practical activities to monitor apprentices' learning.

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At the end of the third batch, we intend to take an even more comprehensive approach to evaluation, by using the BTEB-approved tools included in Annex D.



YOUR CHECKLIST FOR MONITORING & EVALUATION

Formal or informal methods (or a combination of both) can be used for monitoring and evaluation. The level of formality is not as important as ensuring that they both happen, and that results are used to improve programmes.



OUR LESSONS LEARNED

The earlier problems are identified, the easier they are to solve.

- a. Ensuring a quality monitoring system where students are regularly consulted on what is going well and what could be improved within a programme allows problems to be heard of information provided.

Section 3: The impact of this programme

IMPACT

“There is a huge demand for skilled workers in the motorcycle servicing industry. We are continuously facing shortages. I am confident however that replication of this ILO/UCEP pilot programme will help the motorcycle industry in Bangladesh to get a continuous source of trained, competent, skilled and energetic workers.

I wish for this model to be replicated across Bangladesh. We at Uttara Motors are proud to be a partner and to have contributed to the development of this model.”

-- Syed Zeaul Haque, Deputy Head of Workshop, Uttara Services Ltd

Learners

The trainees in this course have experienced immense personal benefit in a number of ways from this programme; psychologically they are more confident, economically they are more independent and socially they are more accepted. Their dedication and hard work has led to them becoming role models for education and training in their families and communities. The learners with low levels of education are becoming advocates for disadvantaged persons and the female students are becoming advocates for gender equality in skills development.

UCEP

UCEP is a well-respected skills development organisation working with underprivileged children and young people in Bangladesh. This programme has introduced them to using the government's new nationally-recognised qualifications in their courses and strengthened their linkage to industry. This is important for two reasons; firstly for ensuring that their trainees are able to smoothly transition into employment upon conclusion of training and secondly; to ensure that all of the different training programmes they run across Bangladesh continue to meet industry needs.

UCEP is continuing to replicate the model in their Mirpur Technical School and are also planning to expand replication into their Chittagong Technical School.

Industry

The transport sector is quickly expanding in Bangladesh and one of the major constraints to its growth is a lack of skilled mechanics. This programme has showed industry that persons with low levels of education can help to fill this gap, particularly in service centres based in less urbanised areas where workers are increasingly difficult to recruit. Female mechanics can also help; their motivation and attentiveness means that they bring a new set of complementary skills to a traditionally male-dominated workplace.

Industry partners have stated that they will try to continue to include females and persons with low levels of education into their workplaces beyond this course. They are showing their stakeholders that they are serious about meeting their social responsibilities and, as part of their good work, are showing the way for other organisations to do the same.

Through replication, it is hoped that Uttara Motors Service Ltd, Walton, TVS and HS Enterprise will become just some of the many informal organisations throughout Bangladesh that will actively employ women and persons with low levels of education. As skill needs exist across a number of industries in Bangladesh, there is potential for the mechanical sector to become a model to other sectors in breaking gender stereotypes and mainstreaming underprivileged persons into the workplace.

Government

With the recent approval of the National Skills Development Policy, public training institutions will be updating the courses which they deliver to meet the requirements of the National Training and Vocational Qualifications Framework. This will mean converting all courses delivered into CBT&A format, and up skilling all staff to deliver and assess these.

Teaching staff at the Bangla-German Technical Training Centre now possess skills in delivering and assessing programmes in CBT&A format, mainstreaming persons with disabilities into their programmes, and forging the links with industry that are needed to ensure courses are relevant.

Through replication, it is hoped that the Bangla-German Technical Training Centre will become one of many public training institutes throughout Bangladesh that will proactively take steps to integrate females and underprivileged persons into training courses.

Section 4: Annexes

ANNEX A: KEY TERMS & ACRONYMS

Apprenticeship	Any system by which an employer undertakes by contract to employ a person and to train them or have them trained systematically for a trade for a period of which the duration has been fixed in advance and in the course of which the apprentice is bound to work in the employer's service
BMET	Bureau of Manpower, Employment & Training
BTEB	Bangladesh Technical Education Board
Decent Work	Decent Work refers to opportunities for women and men to obtain work in conditions of freedom, equity, security and human dignity
DTE	Directorate of Technical Education
Employability	Portable competencies & qualifications that enhance an individual's capacity to utilise education and training opportunities to secure & retain decent work, to progress within enterprises & between jobs, and to cope with changing technology and labour market conditions
EC	European Commission
IGA	Income Generation Activity
GOB	Government of Bangladesh
HRD	Human Resource Development
HSC (Voc)	Higher Secondary Certificate (Vocational)
ISC	Industry Skills Council
Instructor / Trainer	A public or private sector employee who delivers training
MEWOE	Ministry of Expatriate Welfare & Overseas Employment
MOE	Ministry of Education
MOLE	Ministry of Labour & Employment
NGO	Non-Governmental Organization
NSDC	National Skills Development Council
NTVQF	National Technical and Vocational Qualifications Framework
OSH	Occupational Safety and Health
PPP	Public Private Partnership
PWD	Persons with Disabilities
RPL	Recognition of Prior Learning
Skills Development	The full range of formal and non-formal vocational, technical and skills based education and training for employment and or self-employment
SME	Small & Medium Enterprises
SSC (Voc)	Secondary School Certificate (Vocational)
TSC	Technical School and College
TTC	Technical Training Center
TVET	Technical & Vocational Education & Training

ANNEX B: NTVQF INFORMATION

Structure of qualifications in the new National Training and Vocational Qualifications Framework

NTVQF Levels	Pre-Vocation Education	Vocational Education	Technical Education	Job Classification
NTVQF 6			Diploma in engineering or equivalent	Middle Level Manager/ Sub Assistant Engr etc. Highly Skilled Worker/ Supervisor
NTVQF 5		National Skill Certificate 5 (NSC 5)		Worker/Supervisor
NTVQF 4		National Skill Certificate 5 (NSC 4)		Skilled Worker
NTVQF 3		National Skill Certificate 5 (NSC 3)		Semi-Skilled Worker
NTVQF 2		National Skill Certificate 5 (NSC 2)		Basic-Skilled Worker
NTVQF 1		National Skill Certificate 5 (NSC 1)		Basic Worker
Pre-Voc 2	National Pre-Vocation Certificate NPVC 2			Pre-Vocational Trainee
Pre-Voc 1	National Pre-Vocation Certificate 1 NPVC 1			Pre-Vocational Trainee

NTVQF Level Descriptors

Note: Level 1 to level 4 where a person is a competent trade person. Above Level 4, one becomes involved with higher level specialist skills and supervision.

NTVQF Level	Knowledge	Skill	Responsibility	Job Class
6	Comprehensive actual and theoretical knowledge within a specific study area with an awareness of the limits of that knowledge	Specialised and restricted range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems	Mange a team or teams in workplace activities where there is unpredictable change Identify and design learning programmes to develop performance of team members	Supervisor/ Middle Level Manager/Sub Assistant Engr. etc
5	Very broad knowledge of the underlying, concepts, principles, and processes in a specific study area	Very broad range of cognitive and practical skills required to generate solutions to specific problems in one or more study areas	Take overall responsibility for completion of tasks in work or study Apply past experiences in solving similar problems	Highly Skilled Worker/ Supervisor
4	Broad knowledge of the underlying, concepts, principles, and processes in a specific study area	Range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information	Take responsibility, within reason, for completion of tasks in work or study Apply past experiences in solving similar problems	Skilled Worker
3	Moderately broad knowledge in a specific study area	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	Work or study under supervision with some autonomy	Skilled Worker
2	Basic underpinning knowledge in a specific study area	Basic skills required to carry out simple tasks	Work or study under indirect supervision in a structured context	Medium Skilled Worker
1	Elementary understanding of the underpinning knowledge in a specific study area	Limited range of skills required to carry out simple tasks	Work or study under direct supervision in a structured context	Basic Skilled Worker
Pre-Voc 2	Limited general knowledge	Very limited range of skills and use of tools required to carry out simple tasks	Work or study under direct supervision in a well-defined, structured context.	Pre-Vocation Trainee
Pre-Voc 1	Extremely limited general knowledge	Minimal range of skills required to carry out simple tasks	Simple work or study exercises, under direct supervision in a clear, well defined structured context	Pre-Vocation Trainee

ANNEX C: TOOLS & EQUIPMENT LIST

	Name	Specifications (for guidance only)	Quantity
1	Combination spanner	8-32 mm. Germany	5
2	Drive socket set, metric and imperial	3/8" Taiwan	5
3	Torque wrench drive	3/8" (approx) Taiwan	2
4	Cutting pliers	7" Japan	5
5	Nose pliers	8" Japan	5
6	Combination pliers	8" Japan	5
7	Air blow gun	Japan	2
8	Tire pressure gauge	Japan	2
9	Vernier calipers 1/20	6" Japan	2
10	Allen key set & T handle set	Taiwan	5
11	Digital multi meter	Japan	2
12	Water jet	Local	1
13	Compression tester	Taiwan	1
14	Metallica tray standard depth	3ft x 2ft x 1ft Local	2
15	Socket set (13 pc) set	Taiwan	5
16	Hydrometer	Taiwan	2
17	Air compressor	2 HP, Taiwan	1
18	Spare parts shelf unit	China	1
19	Tool box	Taiwan	5
20	Monkey pliers	Taiwan	5
21	Lock and key set	China	5
22	Coil hose assembly	10 mm, Korea	1
23	Compressor Hose Pipe	18 feet, Korea	1
24	L. Wrench set	8", 10", 11", 12", 13" Taiwan	(4 pieces)
25	L. Wrench set	14", 17", 19", Taiwan	(4 pieces)
26	Combination wrench set	6.....22mm Taiwan	(14 pieces)
27	Ring wrench set (8 pc)	8, 10, 11,24 Taiwan	2
28	Screw driver flat	12" Taiwan	5
29	Screw driver (Philips)	12" Taiwan	5
30	Ball pin hammer	1 lb, Taiwan	5
31	Ball pin hammer	.5 lb, Taiwan	5
32	Mallet (rubber hammer)	Taiwan	5
33	Screw driver hammering (flat)	6" Taiwan	5
34	Screw driver hammering (Philips)	8" Taiwan	5
35	Adjustable wrench	10" Germany	5
36	Inside lock pliers	8" Taiwan	5
37	Outside lock pliers	8" Taiwan	5
38	Grease gun	(m Size) Taiwan	5
39	Filler gauge	Germany	5
40	Oil can	India	5
41	Plug wrench	Taiwan	5
42	File flat with handle	10" India	5
43	File round with handle	10" India	5
44	"T" Wrench (8 no set)	Taiwan	5
45	"T" Wrench (10 no set)	Taiwan	5
46	Bearing puller	Taiwan	3
47	Magnetic stick	Taiwan	1
48	Spark plug tester with cleaner	Taiwan	1
49	Tire pressure gauge and tire opening lever	Taiwan	2
50	Motor cycle lifter	Imported	1

All costs mentioned are indicative and subject to change at any time depending on additional import/construction costs, etc.

ANNEX D: BTEB COMPETENCY-BASED EVALUATION FORMS

INSTRUCTIONS—Please give an honest rating by ticking the the corresponding cell of your response. Responses will be treated with utmost confidentiality.

Legend—

- 5 – Outstanding
- 4 – Very Good/Very Satisfactory
- 3 – Good/Adequate
- 2 – Fair/Satisfactory
- 1 – Poor/Unsatisfactory

OFF THE JOB TRAINING EVALUATION FORM—This post-training evaluation instrument is intended to measure how satisfactorily the trainer has done his/her job during the whole duration of training

	TRAINERS / INSTRUCTORS.	1	2	3	4	5
	NAME OF TRAINER:					
1	Orients trainees about Competency Based Training (CBT), the use of Competency Based Learning Materials (CBLMs) and the evaluation system					
2	Discusses clearly the unit of competencies and outcomes to be attained at the start of every module					
3	Exhibits mastery of the subject/course he/she is teaching					
4	Motivates and elicits active participation from the students or trainees					
5	Keeps records of evidence/s of competency attainment of each student/trainees					
6	Instils value of safety and orderliness in the classrooms and workshops					
7	Instils the value of teamwork and positive work values					
8	Instils good grooming and hygiene					
9	Instils value of time					
10	Quality of voice while teaching					
11	Clarity of language/dialect used in teaching					
12	Provides extra attention to trainees and students with specific learning needs					
13	Attends classes regularly and promptly					
14	Shows energy and enthusiasm while teaching					
15	Maximizes use of training supplies and materials					
16	Dresses appropriately					
17	Shows empathy					
18	Demonstrates self-control					

This post-training evaluation instrument is intended to measure how satisfactorily the trainer prepared and facilitated training.

PREPARATION		1	2	3	4	5
1	Workshop layout conforms with the components of a CBT workshop					
2	Number of CBLMs is sufficient					
3	Objectives of every training session are well explained					
4	Expected activities/outputs are clarified					
DESIGN AND DELIVERY		1	2	3	4	5
1	Course contents are sufficient to attain objectives					
2	CBLM are logically organized and presented					
3	Information sheets are comprehensive in providing the required knowledge					
4	Examples, illustrations and demonstrations help you learn					
5	Practice exercises like task/job sheets are sufficient to learn required skills					
6	Valuable knowledge is learned through the contents of the course					
7	Training methodologies are effective					
8	Assessment methods and evaluation system are suitable for the trainees and the competency					
9	Recording of achievements and competencies acquired is prompt and comprehensive					
10	Feedback about the performance of learners is given immediately					
TRAINING FACILITIES / RESOURCES		1	2	3	4	5
1	Training resources are adequate					
2	Training venue is conducive and appropriate					
3	Equipment, supplies and materials are sufficient					
4	Equipment, supplies and materials are suitable and appropriate					
5	Promptness in providing supplies and materials					
SUPPORT STAFF		1	2	3	4	5
1	Support staff are accommodating					

Comments/suggestions:

ON THE JOB TRAINING EVALUATION FORM—This on the Job Training Evaluation (OJT) Form below is a sample evaluation for to evaluate the implementation of OJT. It is recommended that this evaluation form be used and improved so that appropriate areas to be evaluated are covered.

Dear Trainees—The following questionnaire is designed to evaluate the effectiveness of the on the job training (OJT) you had with the industry partners of (your institution). Please check the appropriate box corresponding to your rating for each question asked. The results of this evaluation shall serve as a basis for improving the design and management of the OJT. Thank you for your cooperation.

QUESTION		RATING					
INSTITUTIONAL EVALUATION		1	2	3	4	5	NA
1	Has (your institution) conducted an orientation about the OJT program, the requirements and preparations needed and its expectations?						
2	Has (your institution) provided the necessary assistance such as referrals or recommendations in finding the company for your OJT?						
3	Has (your institution) showed coordination with the Industry partner in the design and supervision of your OJT?						
4	Has your in-school training adequate to undertake Industry partner assignment and its challenges?						
5	Has (your institution) monitored your progress in the Industry?						
6	Has the supervision been effective in achieving your OJT objectives and providing feedbacks when necessary?						
7	Did (your institution) conduct assessment of your OJT program upon completion?						
8	Were you provided with the results of the Industry and (your institution)'s assessment of your OJT?						

Comments/suggestions:

QUESTION		RATING					
INDUSTRY PARTNER EVALUATION		1	2	3	4	5	NA
1	Was the industry partner appropriate for your type of training required and/or desired?						
2	Has the industry partner designed the training to meet your objectives and expectations?						
3	Has the industry partner showed coordination with (your institution) in the design and supervision of the OJT?						
4	Has the industry partner and its staff welcomed you and treated you with respect and understanding?						
5	Has the industry partner facilitated the training, including the provision of the necessary resources such as facilities and equipment needed to achieve your OJT objectives?						
6	Has the industry partner assigned a supervisor to oversee your work or training?						
7	Was the supervisor effective in supervising you through regular meetings, consultations and advise?						
8	Has the training provided you with the necessary technical and administrative exposure of real world problems and practices?						
9	Has the training program allowed you to develop self-confidence, self motivation and positive attitude towards work?						
10	Has the experience improved your personal skills and human relations?						
11	Are you satisfied with your training in the Industry?						

Comments/suggestions:

Signature _____

Printed name _____

Host Industry Partner _____

Period of training _____

Qualification _____

Supervisor _____

Instructor _____

Range	0.00 - 1.49 =	Poor / Unsatisfactory
	1.50 - 2.49 =	Fair / Adequate
	2.50 - 3.49 =	Good / Satisfactory
	3.50 - 4.49 =	Very Good / Very Satisfactory
	4.50 - 5.00 =	Outstanding

General interpretation:

Recommendation:



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