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INDUSTRIAL GARMENT EXPERT

TRAINER GUIDE

National Vocational Certificate Level 4

Version 1 - April, 2019

NAVTTC

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Director General Skills Standard and Curricula, National Vocational and Technical Training Commission
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Introduction

Competence-based training helps to bridge the gap between what is taught in training and what tasks will be performed on the job. Training trainees to perform actual job functions helps to ensure that future front-line workers have the skills, knowledge and abilities required to perform their jobs properly, safely and effectively. In addition to competence-based training, assessment based on the performance of actual work competencies helps to ensure that:

- trainees are performing their work tasks as safely as possible
- performance gaps are recognized prior to serious incidents
- training can be implemented to improve competence.

There are significant benefits to competence-based training:

1. **Cost effectiveness**

   Since training activities and assessments in a competence-based approach are goal-oriented, trainers focus on clearly defined areas of skills, knowledge and understanding that their own industry has defined in the competence standards. At the same time, trainees are more motivated to learn when they realize the benefits of improved performance.

2. **Efficiency**

   The transfer gap between the training environment and working on the job is reduced substantially in a competence-based approach. This is because training and assessment are relevant to what needs to be done on the job. As a result, it takes less time for trainees to become competent in the required areas. This, in turn, contributes to improved efficiency where training and assessment are concerned.

3. **Increased productivity**

   When trainees become competent in the competence standards that their own industry has defined, when they know what the performance expectations are and receive recognition for their abilities through successful assessments, they are likely to be more motivated and experience higher job satisfaction. The result is improved productivity for organizations. The communication and constructive feedback between future employers and employees will improve as a result of a competence-based approach, which can also increase productivity.

4. **Reduced risk**

   Using a competence-based approach to training, development, and assessment, employers are able tocreate project teams of people with complementary skills. A trainee’s record of the skills, knowledge and understanding relating to the competence standards they have achieved can be used by a future employer to identify and provide further relevant training and assessment for new skills areas.

Competence standards can shape employee development and promotional paths within an organization and give employees the opportunity to learn more competencies beyond their roles. It can also provide organizations with greater ability to scale and flex as needed, thereby reducing the risk they face.

5. **Increased customer satisfaction**

   Employees who have been trained and assessed using a competence-based approach are, by the definition of the relevant competence standards, able to perform the required tasks associated with a job. The knock-on effect is that, in service-related industries, they are able to provide high service levels, thereby increasing customer satisfaction. In production or manufacturing industries, they are able to work closely to industry standards in a more effective and efficient way.

Lesson plans

This manual provides a series of lesson plans that will guide delivery of each module for the *Industrial Garment Expert* qualification. It is important for trainers to be flexible and be ready to adapt lesson plans to suit the context of the subject and the needs of their trainees.

Good teachers acknowledge that CBT means each and every trainee in the class learns at a different speed. The good teacher is prepared to throw aside the day's lesson plan and do something different (and unplanned) for the class even if it means 'writing' a lesson plan for each trainee to match their learning pace for that day or week.

Learning by doing is different from learning theory and then applying it. To learn to do something, trainees need someone looking over their shoulder saying 'it's not quite like that, it's like this', 'you do it like this because …', or even 'tell me why you chose to do it like this?'.

In this way, trainees learn that theoretical knowledge is meaningless if it is not seen in the context of what they are doing. In other words, if a trainee doesn't know why they do something, they will not do it competently (skills underpinned by knowledge = competent performer).

This is how a Industrial stitching machine expert acquires a practical grasp of the standards expected. It's not by learning it in theory, but because those standards are acquired through correction by people who show what the standards are, and correct the trainee where they do not meet those standards, and where they repeat it correction until they have internalized those standards.

Demonstration of skill

Demonstration or modeling a skill is a powerful tool, which is used, in vocational training. The instructions for trainers for demonstration are as under:

a) Read the procedure mentioned in the Trainer Guide for the relevant Learning Unit before demonstration.
b) Arrange all tools, equipment and consumable material, which are required for demonstration of a skill.

c) Practice the skill before demonstration to trainees, if possible.
d) Introduce the skill to trainees clearly at the commencement of demonstration.
e) Explain how the skill relates to the skill(s) already acquired and describe the expected results or show the objects to trainees.
f) Carry out demonstration in a way that can be seen by all trainees.
g) Perform each step slowly and describe each step clearly so that all trainees can hear and understand.
h) Identify critical or complex steps, or steps that involve safety precautions to be followed.
i) Explain theoretical knowledge where applicable and ask questions to trainees to test their understanding.
j) Repeat critical steps in demonstration, if required.

Summarize the demonstration by asking questions to trainees.

Overview of the program

Course: NVQ Certificate Level 4 in Industrial Garment Expert	**Total Course Duration:** 480 hours
Course Overview:	
The Textile Sector- Industrial Garment Expert program is to engage young people with a program of development that will provide them with the knowledge, skills and understanding to start this career in Pakistan. The program has been developed to address specific for preparation of marker for production, manage sewing production and manage quality during production, the manpower availability within the country, and meeting and exceeding the needs and expectations of their customers.	

Module Title and Aim	Learning Units	Timeframe of modules
Module 2: Prepare marker for production	**LU1:** Interpret spec sheet **LU2:** Digitize pattern **LU3:** Perform size findings **LU4:** Prepare marker	100
Module 3: Manage sewing production	**LU1:** Apply layout **LU2:** Prepare line balance **LU3:** Monitor production	200
Module 4: Manage quality during production	**LU1:** Perform clockwise inspection. **LU2:** Maintain Acceptable Quality Level (AQL) **LU3:** Verify product measurement and weight **LU4:** Apply Traffic Light System	140

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Module-2

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Module 2: Prepare marker for production			
Learning Unit	**Suggested Teaching / Learning Activities**	**Delivery Context**	**Media**
LU1. Interpret spec sheet	Lead a discussion on interpret order sheet. Ensure that the discussion addresses the following points: • the importance of spec sheet for sample making according to the requirement. • Understand the master pattern and its methods to develop. Arrange learners in different pairs. Ask each pair to devise 5 questions with correct answers about interpret order sheet. Hold a quiz for the group using the questions devised by each pair.	Class Room Workshop.	Learner guide Handouts Presentation Videos
LU2. Digitize pattern	Begin this session with an illustrative presentation about the preparation of garment pattern Include discussions and examples of: • Importance of digitize of pattern for stitching a garment. • The benefits of preparing pattern by minimizing the wastage. • Understand the different sizes of the product. • Measurements techniques of different patterns and pattern types. • Sequence of nomenclature. • Understanding of grain line, seam, notches and drills. • Methods of fabric layers / spreading and fabric consumption. • working independently	Class Room Workshop.	Learner guide Handouts Presentation Videos

Module 2: Prepare marker for production			
Learning Unit	**Suggested Teaching / Learning Activities**	**Delivery Context**	**Media**
	• compliance with relevant regulations and standards Arrange learners into small groups. Ask each group to discuss the importance of being able to independently preparation of digitize garment pattern grading and present **THREE** situations that illustrate their discussion. Take verbal feedback from each group.		
LU3. Perform size findings	Deliveries an illustrated presentation on sewing operations requirements for measurement of size of garment. Ensure that the presentation focuses on the following: • Understand the grading pattern. • sequencing the measurement operations performed correctly • Measuring stitched parts of garment accurately • Types of possible stitching defects during operations and their possible remedies. • Necessary pattern pieces for different sizes for a particular style of garments. • Knowledge of panel arrangement for marker preparation. • working independently • compliance with relevant regulations and standards Ask learners to work in small groups. Each small group should consider **THREE** of the above issues and illustrate the importance of each issue with specific examples from a stitching unit situation.	Class Room Workshop.	Learner guide Handouts Presentation Videos
LU4. Prepare marker	Deliveries an illustrated presentation on marker preparation requirements for making marker. Ensure that the presentation focuses on the following: •	Class Room Workshop.	Learner guide Handouts Presentation

Module 2: Prepare marker for production			
Learning Unit	**Suggested Teaching / Learning Activities**	**Delivery Context**	**Media**
	• sequencing the operations performed correctly • the importance of using the correct tools and equipment • Quality parameters for marker preparation. • Ensure of grain lines with all sizes (S/M/L/XL/XXL etc) • Identification for measurement marker according to fabric width. • Marker development as per size ratio. • Operating procedures to take the print out on plotter. • Techniques use for minimize the wastage during marker. • working independently • compliance with relevant regulations and standards Ask learners to work in small groups. Each small group should consider **THREE** of the above issues and illustrate the importance of each issue with specific examples from a marking at realistic situation.		Videos

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Module-3

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Module 3: Manage sewing production			
Learning Unit	**Suggested Teaching / Learning Activities**	**Delivery Context**	**Media**
LU1. Apply layout	Invite an experienced production supervisor from industry to deliver a presentation to trainees about layout for production department independently to complete the target according to quality and safety parameters within time. Ask the invited supervisor to address the following key points: • Differences between types of stitching machines and their working principles. • Knowledge of Operation Bulletin (OB) with all stitching jobs and non-sewing jobs during the construction of garment on production floor. • Preparation of Operation Bulletin (OB) • sequencing the operations performed correctly • the importance of using the correct tools and equipment • Importance of PPEs during production cycle. • Importance of machine speed according to the nature of fabric quality. • working independently • compliance with relevant regulations and standards After the presentation, invite trainees to pose questions to the invited operator that will clarify their understanding.	Class Room Workshop.	Learner guide Handouts Presentation Videos
LU2. Prepare line balance	Begin this session with an illustrative presentation about the preparation of line balancing. Include examples of: • Importance of safety precautions according to job requirement. • Checking WIP (work in process) • Analyze efficiency and utilization as per Operation	Class Room Workshop.	Learner guide Handouts Presentation Videos

Module 3: Manage sewing production			
Learning Unit	**Suggested Teaching / Learning Activities**	**Delivery Context**	**Media**
	Bulletin (OB) • Monitoring men and machine performance according to production targets • Concept of Six Sigma and its advantages on production. • Comparing actual and calculated targets and calculates efficiency of the machines and workers. • Implementation of Root Cause Analysis (RCA) and its advantages. • working independently • compliance with relevant regulations and standards Arrange learners into small groups. Ask each group to discuss the importance of being able to independently performing the line balancing and present **TWO** situations that illustrate their discussions.		
LU3. Monitor production	Begin this session with an illustrative presentation about the concepts and procedures of monitoring the production on floor.. Include examples of: • Importance of safety precautions according to job requirement. • Understanding the implications of new information for both current and future problem-solving and decision-making. • Methods of monitoring the production in relationship with quality, time management, targets. • Controlling aspects of garments industry to execute the delivery of goods within time frame. • Monitoring/Assessing performance of individuals, or organizations to make improvements or take corrective action.	Class Room Workshop.	Learner guide Handouts Presentation Videos

Module 3: Manage sewing production			
Learning Unit	**Suggested Teaching / Learning Activities**	**Delivery Context**	**Media**
	• Availability of resources for the achievements of targets in time. • System should work and how changes in conditions, operations, and the environment will affect outcomes. • working independently • compliance with relevant regulations and standards Arrange learners into small groups. Ask each group to discuss the importance of being able to independently performing the monitoring the production and present **THREE** situations that illustrate their discussions.		

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Module-4

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Module 4: Manage quality during production.			
Learning Unit	**Suggested Teaching / Learning Activities**	**Delivery Context**	**Media**
LU1. Perform clockwise inspection.	Begin this session with an illustrative presentation about the performing the clockwise inspection. Include examples of: • Importance of safety precautions according to job requirement. • Advantages of clockwise inspection over other methods. • Calculation of DHU (Defects per Hundred Unit) concept. • Analyze the defects as per requirements and segregate defected product for evaluating the individual's performance • working independently • compliance with relevant regulations and standards Arrange learners into small groups. Ask each group to discuss the importance of being able to independently performing the clockwise inspection and present **THREE** situations that illustrate their discussions.	Class Room Workshop.	Learner guide Handouts Presentation Videos
LU2. Maintain Acceptable Quality Level (AQL)	Lead a discussion about the importance of AQL (Acceptable Quality Level) its effect on quality of the garment production. Ensure the discussion focuses on the following points: • Understanding the relationship between AQL and quality. • Methods and techniques of AQL • Knowledge of accessories use for finishing to make product like zip, button, adhesive, lining) • classification of defects (major, minor and critical) • Importance of re-inspection and factors involved during re-inspection if lot is failed. • Importance and advantages of Garment zone. Following the discussion, arrange the trainees in small groups.	Class Room Workshop.	Learner guide Handouts Presentation Videos

Module 4: Manage quality during production.			
Learning Unit	**Suggested Teaching / Learning Activities**	**Delivery Context**	**Media**
	Provide each group with a role play situation about problems of quality, for example problems with equipment, size, stitching. Each group should role play their situation to find an acceptable solution to the problem and practice for the cropping with different methods. Take feedback after the role plays and, as a group, consider the solutions suggested for each problem.		
LU3. Verify product measurement and weight	Deliveries an illustrated presentation on verification of product measurement nd weight maintaining quality of product. Ensure that the presentation focuses on the following: • Proper techniques of product measurement and weight. • the importance of using the correct tools and equipment • Measuring stitched parts of garment accurately • Sample size and types to calculate weight / size of the product. • working independently • compliance with relevant regulations and standards Ask learners to work in small groups. Each small group should consider **THREE** of the above issues and illustrate the importance of each issue with specific examples from a stitching unit situation.	Class Room Workshop.	Learner guide Handouts Presentation Videos
LU4. Apply Traffic Light System	Lead a discussion about the importance of Traffic Light System for quality inspection of the garment / product. Ensure the discussion focuses on the following points: • Understanding the relationship between quality and traffic light system. • Sewing defects and their possible remedies. • Methods and techniques of applyinh traffic light system. • Importance and usage of three different types of color	Class Room Workshop.	Learner guide Handouts Presentation Videos

Module 4: Manage quality during production.			
Learning Unit	**Suggested Teaching / Learning Activities**	**Delivery Context**	**Media**
	cards used for traffic light system inspection. • Knowledge of accessories use for finishing to make garment like zip, button, adhesive, lining) • Importance and proper uses of packing accessories like hang tag, price tag, poly bag etc) Following the discussion, arrange the trainees in small groups. Provide each group with a role play situation about problems of finishing the garment samples, for example problems with equipment, including equipment (thread sucking machine) not working. Each group should role play their situation to find an acceptable solution to the problem and practice for the cropping with different methods. Take feedback after the role plays and, as a group, consider the solutions suggested for each problem.		

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+92 51 9044 322
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