Intermediate apparel production

LEVEL – 2

LEARNING GUIDE 53

Unit of competence: - Contribute to Garment Production Process Improvement

Module Title: - Contributing to Garment Production Process Improvement

LG Code:- IND IAP2 LG53 10 19

TTLM Code: - IND IAP2 LG53 10 19

LO1: Identify key elements of production requirement

Instruction Sheet-1	Learning Guide53

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics.

- Identifying key customers and their needs and expectations
- Describing Garment production processes
- value chain
- Identifying key suppliers and their roles
- Identifying enterprise quality standards
- Identifying Enterprise production requirements

This guide will also assist you to attain the learning outcome stated in the coverage. Specifically up on completion of this learning guide, you will be able to:-

- Identify key customers and their needs and expectations
- Describe Garment production processes
- value chain
- Identify key suppliers and their roles
- Identify enterprise quality standards
- Identify Enterprise production requirements

Learning Instructions:

1. Read the specific objectives of this Learning Guide.

2. Follow the instructions described below

3. Read the information written in the "Information Sheets 1-6". Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.

4. Accomplish the "Self-checks1-6"in each information sheets.

5. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-checks).

6. If you earned a satisfactory evaluation proceed to "Operation sheets and LAP Tests if any". However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity.

7. After you accomplish Operation sheets and LAP Tests, ensure you have a formative assessment and get a satisfactory result;

8. Then proceed to the next information sheet.

Information sheet-1	Identifying key customers and their needs and expectations

1.1 Identifying key customers and their needs and expectations

The key suppliers and customers of a public company can be found using Migrant Horizon.

Once in Merging Horizon, simply search for a company by name or using its ticker symbol.

When you have pulled up a company profile, you will see "Customers" and "Suppliers" listed in a column on the left side of the screen.

Most customer needs can be divided into four basic categories:

1. The need to be understood
   Customers need to feel that the message they are sending is being correctly received and interpreted.
2. The need to feel welcome
   Customers need to feel that you are happy to see them
3. The need to feel important
   Customers like to feel important and special
4. The need for comfort
   Customers need physical and psychological comfort

The Value of Knowing Your Customers

Radio stations and television stations conduct regular market research to find out who their listeners and viewers are and often adapt their programs to suit the audience.

The RATER Model:

There are a number of different ways of categorizing what customers want and value. One of these is called the RATER scale. This is made up of five elements:

1. **Reliability**:-relates to timeliness, consistency, regularity, accuracy.
2. **Assurance**:- relates to competence, knowledge, respect, credibility, honesty, confidentiality, safety, security.
3. **Tangibles**;- relates to appearance of facilities, staff, communication facilities
4. **E**mpathy:-relates to access to staff and information, clear, appropriate and timely information, individualized attention
5. **R**esponsiveness:-relates to prompt service, willingness to help, problem resolution.

The first step of customer research is identifying your customers.

- ➢ gender
- ➢ age
- ➢ occupation
- ➢ disposable income

> ➢ residential location
> ➢ Recreational activities

You can find out what motivates them to buy products and services.
> ➢ work demands
> ➢ family needs
> ➢ budget pressures
> ➢ social or emotional needs
> ➢ Brand preferences

Self-Check 1	Written Test

Name: _____   Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

1. List Most customer needs can be divided into four basic categories

i. --

ii. --

iii. --

iv. --

Information sheet-2	Describing *Garment production processes*

1.2 Describing *Garment production processes*

Garment Manufacturing Process Flow Chart

Garment manufacturing includes number of processes from order receiving to dispatching shipment of the finished garments. A process flow chart helps to understand how raw materials are moved from one process to another process until raw materials are transformed into the desired product (garments).

Based on present apparel industry, garment manufacturing processes are categorized as

- Pre-Production Processes - Pre-production process includes sampling, sourcing of raw materials, Approvals, PP meeting etc.
- Production processes - Production processes are cutting, sewing, finishiing etc.
- Post production processes - thread trimming, pressing, checking, folding and packing, shipment inspection etc.

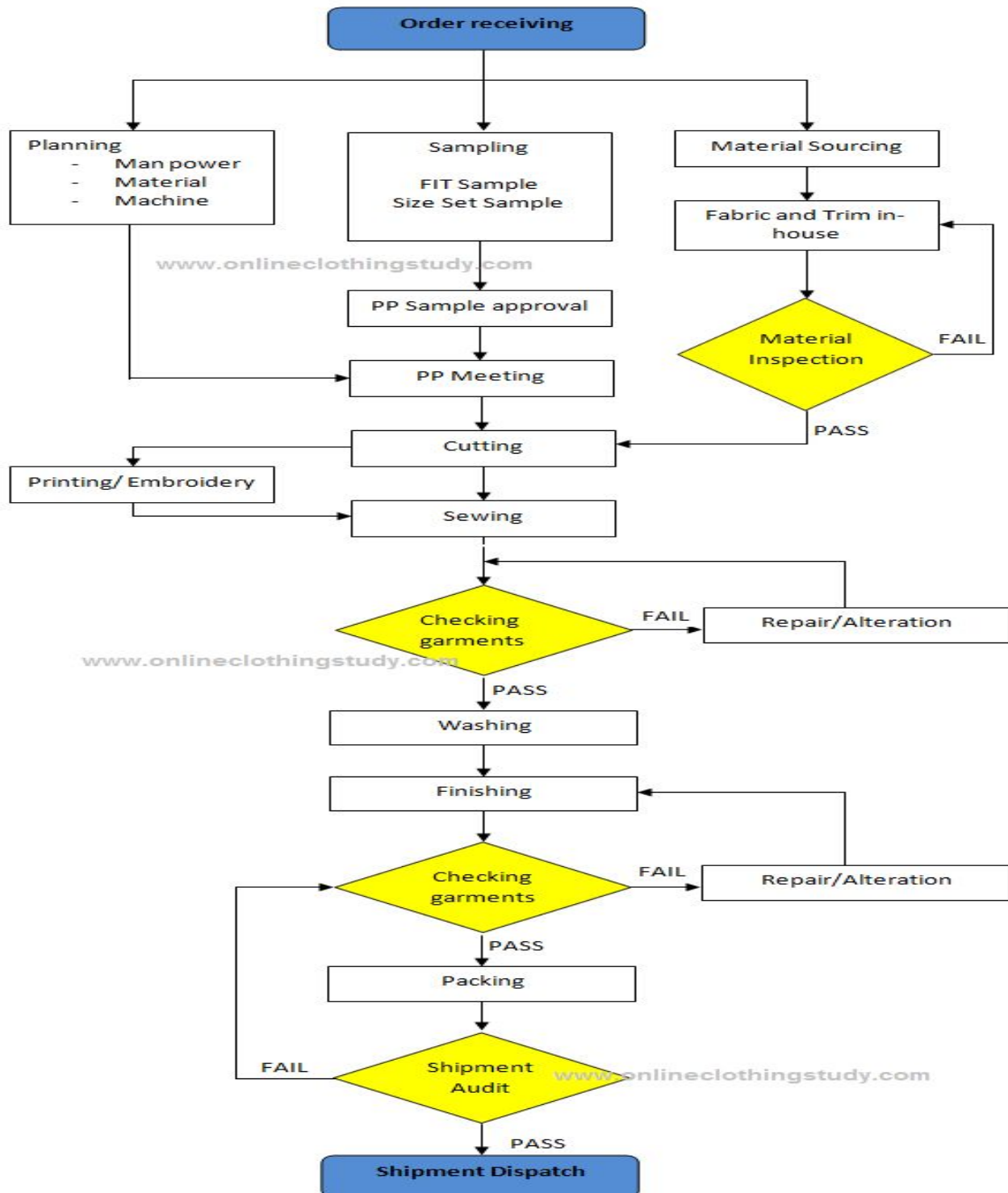## Chart1. Garment manufacturing process flow chart (major processes)

```
                            ┌─────────────────────┐
                            │   Order receiving   │
                            └─────────────────────┘
         ┌────────────────────────┬────────────────────────┐
         ▼                        ▼                        ▼
┌──────────────────┐   ┌──────────────────────┐   ┌──────────────────────┐
│ Planning         │   │ Sampling             │   │ Material Sourcing    │
│  - Man power     │   │                      │   └──────────────────────┘
│  - Material      │   │ FIT Sample           │              ▼
│  - Machine       │   │ Size Set Sample      │   ┌──────────────────────┐
└──────────────────┘   └──────────────────────┘   │ Fabric and Trim in-  │
                                  ▼                │ house                │
                       ┌──────────────────────┐   └──────────────────────┘
                       │ PP Sample approval   │              ▼
                       └──────────────────────┘      ╱ Material ╲   FAIL
                                  ▼                  ╱ Inspection ╲──────
                       ┌──────────────────────┐      ╲          ╱
                       │ PP Meeting           │       ╲        ╱
                       └──────────────────────┘         PASS
                                  ▼
     ┌────────────────┐ ┌──────────────────────┐
     │                │ │ Cutting              │◄─────
     ▼                │ └──────────────────────┘
┌──────────────────┐  │            ▼
│ Printing/        │  │ ┌──────────────────────┐
│ Embroidery       │──┴─│ Sewing               │
└──────────────────┘    └──────────────────────┘
                                  ▼
                          ╱ Checking ╲   FAIL   ┌──────────────────────┐
                          ╲ garments ╱─────────►│ Repair/Alteration    │
                            ╲      ╱            └──────────────────────┘
                             PASS
                                  ▼
                       ┌──────────────────────┐
                       │ Washing              │
                       └──────────────────────┘
                                  ▼
                       ┌──────────────────────┐
                       │ Finishing            │◄─────
                       └──────────────────────┘
                                  ▼
                          ╱ Checking ╲   FAIL   ┌──────────────────────┐
                          ╲ garments ╱─────────►│ Repair/Alteration    │
                            ╲      ╱            └──────────────────────┘
                             PASS
                                  ▼
                       ┌──────────────────────┐
                       │ Packing              │
                       └──────────────────────┘
                                  ▼
          FAIL           ╱ Shipment ╲
      ◄──────────────────╲ Audit    ╱
                            ╲      ╱
                             PASS
                                  ▼
                            ┌─────────────────────┐
                            │ Shipment Dispatch   │
                            └─────────────────────┘
```

Chart2. Cutting Room Process Flow Chart

Cutting Room Process Flow Chart

```
          ┌──────────────────────┐
          │  Marker and Plotter  │
          │       making         │
          └──────────┬───────────┘
                     │
                     ▼
          ┌──────────────────────┐
          │   Fabric Spreading   │
          └──────────┬───────────┘
                     │
                     ▼
          ┌──────────────────────┐      ┌──────────────────────┐
          │    Fabric cutting    │─────▶│      Re- cutting      │
          └──────────┬───────────┘      └──────────┬───────────┘
                     │◀─────────────────────────────┘
                     ▼
                   ◇◇◇◇◇
                 ◇       ◇
               ◇  Checking ◇        www.onlineclothingstudy.com
               ◇  cuttings ◇
                 ◇       ◇
                   ◇◇◇◇◇
                     │
                     ▼
          ┌──────────────────────┐      ┌──────────────────────┐
          │      Stickering      │─────▶│        Fusing        │
          └──────────┬───────────┘      └──────────┬───────────┘
                     │◀─────────────────────────────┘
                     ▼
          ┌──────────────────────┐      ┌──────────────────────┐
          │ Sorting and Bundling │─────▶│  Printing/Embroidery │
          └──────────┬───────────┘      └──────────┬───────────┘
                     │◀─────────────────────────────┘
                     ▼
          ┌──────────────────────┐
          │      Stitching       │
          └──────────────────────┘
```
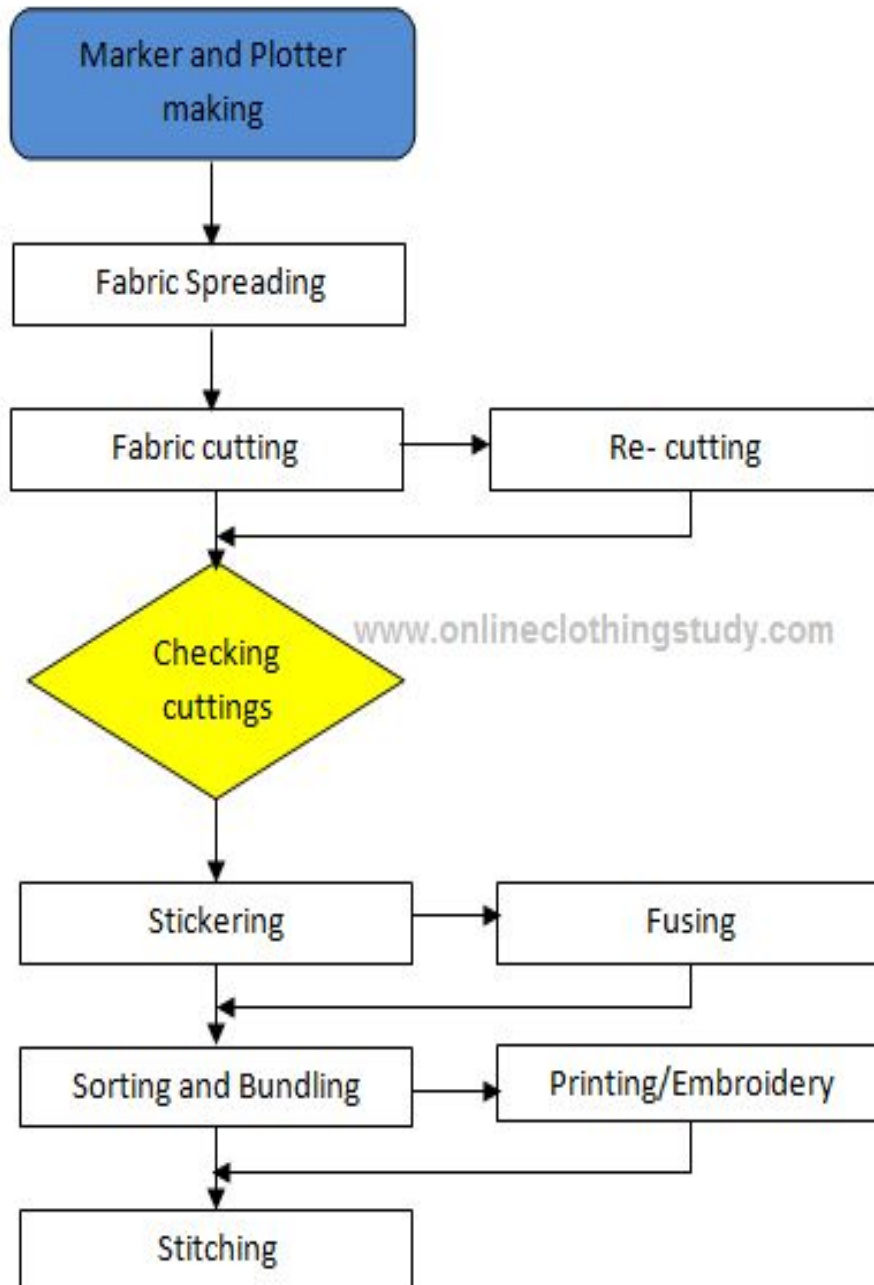
Chart3. Finishing Process Flow Chart

Garment Finishing Process Flow Chart

```
                    ┌──────────────────────┐
                    │   Thread Cutting     │
                    └──────────┬───────────┘
                               │
                               ▼
                        ╱─────────────╲
                       ╱    Initial    ╲
                       ╲   checking    ╱
                        ╲─────────────╱
                               │
                               ▼
                    ┌──────────────────────┐
                    │      Pressing        │
                    └──────────┬───────────┘
                               │
                               ▼
                        ╱─────────────╲
     ┌─────────────────╱  Measurement  ╲──────────────┐
     │                 ╲   checking    ╱               │
     │                  ╲─────────────╱      ┌────────────────────┐
     │                       │               │  Repair/Alteration │
┌────────────────────┐       │               └────────────────────┘
│  Repair/Alteration │       ▼
└────────────────────┘   ╱─────────────╲
     │            ┌─────╱     Final     ╲
     │            │     ╲   checking    ╱
     │            │      ╲─────────────╱
     └────────────┘           │
                              ▼
                    ┌──────────────────────┐
                    │      Tagging         │
                    └──────────┬───────────┘
                               │
                               ▼
                    ┌──────────────────────┐
                    │  Folding and Packing │
                    └──────────┬───────────┘
                               │
                               ▼
                    ┌──────────────────────┐
                    │    Packing to Box    │
                    └──────────┬───────────┘
                               │
                               ▼
                    ┌──────────────────────┐
                    │ Inspection of ready to│
                    │     ship goods       │
                    └──────────┬───────────┘
                               │
                               ▼
                    ╭──────────────────────╮
                    │   Dispatch shipment  │
                    ╰──────────────────────╯
```
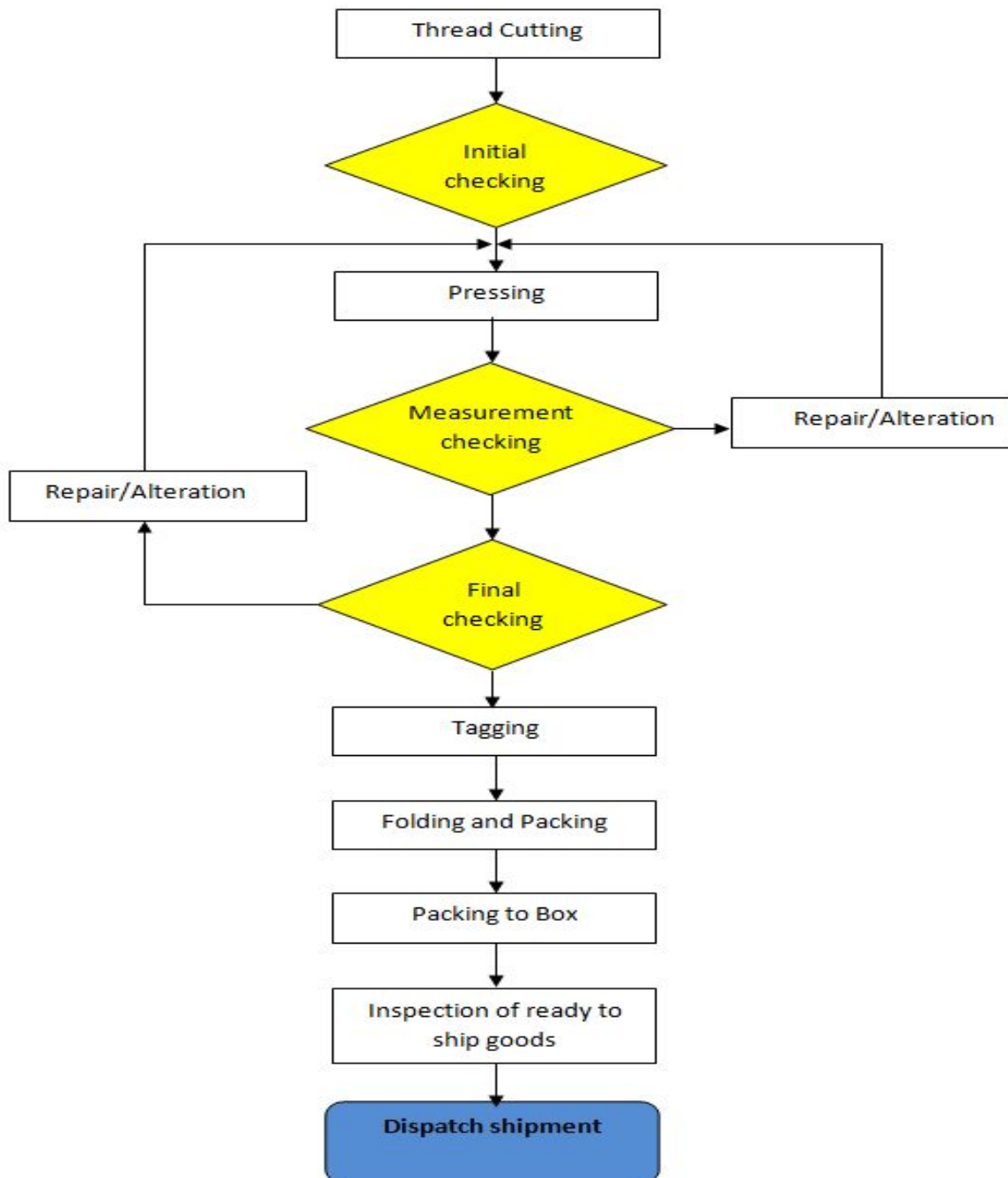
Self-Check 2	Multiple Choice Questions

Directions: Answer all the questions Multiple Choice Question

1. Which one of the following is true Pre-Production Processes
   a. raw materials
   b. cutting
   c. packing
   d. none
2. Which one of the following is not true Post production processes
   a. thread trimming
   b. shipment inspection
   c. sewing
   d. al

Information sheet-3	value chain

1.3 value chain

Production processes
- receiving and processing of fabric
- identification of fabric quality
- lay-up and cutting of fabric
- making marker
- pressing
- specialist machine use
- pattern design, modification and development
- sewing, machine processes
- repairs and alterations
- blocking and shaping
- trimming, finishing
- testing, inspecting
- dispatch, storage, packing
- finishing processes **_value chain_**

- Materials
- Component parts
- Final product
- Production processes

Process flow in garment manufacturing unit
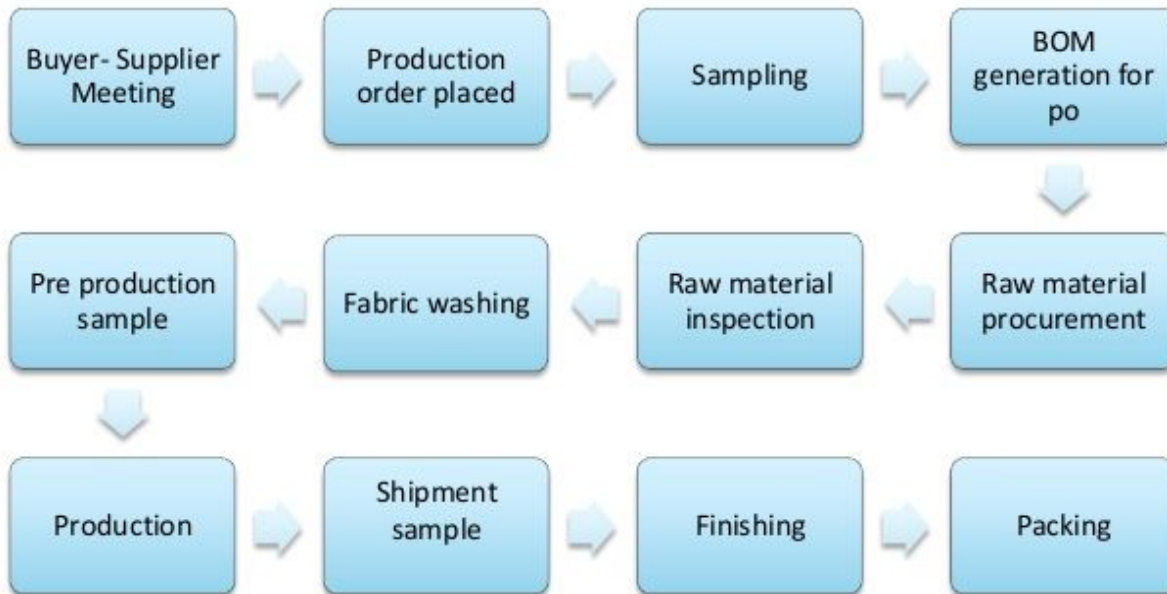
Buyer- Supplier Meeting	→	Production order placed	→	Sampling	→	BOM generation for po

Pre production sample	←	Fabric washing	←	Raw material inspection	←	Raw material procurement

Production	→	Shipment sample	→	Finishing	→	Packing

Self-Check 3	Written Test

Name: _____   Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

1. List garment *Production processes*
    i.   ---
    ii.   ---
    iii. ---
    iv.   ---
    v.   ---

Information sheet-4	Identify Key *suppliers* and their role

1.4 Identify Key *suppliers* and their role

The key suppliers and customers of a public company can be found using Migrant Horizon.

Once in Merging Horizon, simply search for a company by name or using its ticker symbol.

- ❖ Suppliers of fabrics, trims, buttons, zips, thread and components used in garment production.
- ❖ personnel, specialist support, contractors
- ❖ dispatch, warehousing, transport operators
- ❖ publicity and promotional suppliers
- ❖ machinery and equipment suppliers and repair contractors

1.4.1 Suppliers of ABRIC & TRIMS

"I placed an order for fabric, which is needed for my production that is starting in 3 weeks. I placed the order a month ago and now the fabric supplier just told meth at they won't be able to get the fabric I want until 4 weeks time. This now means my whole production schedule is affected."– Client Depending on the fabrics you require at production, some fabrics you may want, might need to be order from abroad. In doing so, we need to ensure we get the fabric in time for your production - to make sure our production scheduling runs smoothly. There if we do decide to get your fabrics from abroad suppliers, we need to schedule extra time. As there could always be delays in receiving the fabric and chances that fabrics may not be available at a certain time.

TRIMS

Quality control is vital when manufacturing your garment Quality control ensure your garments not only meet your high standards but also to ensure that the garments are made in order for the standard of garments are sustain

PATTERNS

Depending on the fabrics you require at production, so fabrics you may want, might need to be order from abroad. In doing so, we need to ensure we get the fabric in time for your production - to make sure our production scheduling runs smoothly. There if we do decide to get your fabrics from abroad suppliers, we need to schedule extra time. As there could always be delays in receiving the fabric and chances that fabrics may not be available certain time.

Trendy Trims offer a wide variety of zips and button fasteners for manufacturers of clothing, footwear and accessories. We have many different button ranges for all types of garment applications.

We offer a button dyeing service, whereby we can match your buttons to your garment.

With our button dyeing facility, we are able to provide comprehensive color range, and color matching expertise.

1.4.2 Warehouse

The warehouse is a central hub in the supply chain, where inventory is received from vendors and stored until its eventual distribution to consumers.

Warehouse personnel work long and often odd hours to ensure that each product is properly shelved and organized.

Warehouse managers direct team members to stock shelves, transfer inventory properly and maintain accurate inventory levels.

WAREHOUSE MANAGER GENERAL RESPONSIBILITIES

Supervise the operation of a storeroom and all facets including ordering, receiving, processing, recording and distributing supplies and materials; preparing and maintaining detailed records and files.

Supervision is exercised over storekeepers and delivery persons.

ESSENTIAL TASKS (These are intended only as illustrations of the various types of work performed.

The omission of specific duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.) • Manage, oversee, supervise and participate in storeroom operations.

• Approve requisitions, analyzes work orders, etc.

• Operate forklift.

• Supervise computer operations.

• Brief staff on materials to be loaded or on assembly of items to be delivered.

• Check with staff for changes that could affect delivery schedule; make schedule adjustments as needed.

• Review paperwork from deliveries to determine if additional work requirements will occur.

• Check documents for thoroughness and completeness and prepare additional documentation when necessary.

• Initiate all requests for replenishment of stock.

• Oversee the receipt and dispersal of mate rialsentering or leaving warehouse; help storekeepers with this task when required.

• Take periodic inventories and participate in monthly inventory program.

• Perform related tasks as required.

1.4.3 Promotional apparel

Promotional apparel is clothing imprinted with a company's name, logo or message. They include shirts, gloves, hats, jackets and any piece of clothing that can be incorporated in marketing and communication campaigns. The promotional clothing is used to endorse a product, service or company agenda. The importance of promotional apparel lies in the relationship that is generated between businesses and the public. Businesses require promotional items to help reach potential customers and clients. With promotional apparel, businesses are able to obtain exposure and brand recognition. Promotional apparel is usually distributed as handouts or shipped as bonus items to accompany a purchase.

1.4.4 Equipment and material

 Equipment- and material-related problems in the sewing- and cutting rooms were investigated through seven questions that covered aspects regarding the condition and availability of basic technology required to perform their duties. The biggest obstacle experienced in both departments related to frequent breakage of equipment. Complaints about the breakage of machines (60,8%) and cutting blades (60,7%) indicate that tools may need to be checked or replaced more frequently. Furthermore, the workers apparently did not have enough equipment to deal with their work load. Long lead times before broken machines could be fixed resulted in not enough machines to work on, and sewing operators being idle. Deficient equipment can have a negative effect on perform optimally to produce the outputs that they are potentially capable of. These problems reflect negatively on management. Some materials used in productions were considered too difficult to sew by 77% of respondents. This may be due to a lack of skill and subsequently a need for training, faulty equipment or the quality of the material itself. Running out of yarn and/or material may be due to re-

cutting or poor production planning.   Problems encountered with physical resources were mostly related to poor management, specifically a lack of attention to the condition of tools and equipment; inadequate stock in terms of what was required to prevent delays during the construction processes; as well as lack of training that would ensure that workers are skilled to perform the tasks they are trusted with.

Transformation

Self-Check 4	Multiple Choice Questions

Directions: Answer all the questions Multiple Choice Question

1. -----------is a central hub in the supply chain, where inventory is received from vendors and stored until its eventual distribution to consumers.
   a. warehouse
   b. Promotional apparel
   c. a and b
   d. none

Information sheet-5	Identify Enterprise Quality Standards

1.5Identify Enterprise Quality Standards

This research work assesses quality-related problems in Ethiopian garment enterprises in order to develop an applicable quality improvement model to improve the overall performance of the sector. A sample of 11 garment enterprises was taken considering the expected response rate, requirements for performing statistical analysis, available time, and survey cost. Primary and secondary data were collected and analyzed to identify quality-related problems of the sector using a well-structured questionnaire, interviews, personal observations, and review of previous works. The study performs a preliminary gap analysis to determine the position of the\ sector with the requirement of ISO 9001 standard system.

Further analysis is made by considering a case study to investigate the quality associated costs and apply SQC tools to identify the potential areas of improvement. Then, a quality improvement model is developed along with primary steps to implement the model to improve the competitiveness of the sector.

Quality Standards in Garment Construction

This section recognizes and identifies the standards for quality clothing construction that give a garment a professional, finished look. Specific standards in construction can be expected even though there are many techniques that can produce the same finished results.

Quality department

Responsibilities of quality department

➤ To impart quality in the product.

➤ To ensure that the product has achieved the quality parameters of buyers.

➤ To restrict the defects entering into the final product.

➤ Main function of quality department is to carry out *inspection*.

➤ *Inspection* can be defined as the visual examination or review of raw materials, partially finished components of the garments and completely finished garments in relation to some standards, specifications, or requirements, as well as measuring the garments to check if they meet the required measurements.

Cutting defects

- Frayed edges
- Fuzzy, ragged or se
- Ply-to-ply fusion
- Single-edge fusion
- Pattern precision-
- Notches
- Drills

Spreading defects

Possible Pattern Defects:

- Pattern parts missing
- Mixed parts
- Patterns not facing in the correct direction on napped fabrics
- Patterns not all facing in the same direction on a one-way fabric
- Patterns not aligned with respect to the fabric grain
- Line definition poor

- Skimpy marking
- Generous marking
- Marker too wide
- Not enough knife clearance freedom
- Mismatched checks and stripes
- Notches and drill marks omitted, indistinct, or misplaced

Sewing defects

- Needle Damage
- Feed Damage
- Skipped stitches
- Thread breaks
- Broken stitches
- Seam grin
- Seam pucker

- Pleated seams
- Wrong stitch density
- Uneven stitch density
- Staggered stitch
- Improperly formed stitches
- Oil spots or stains

Checks for final insp

- Open seams
- Skipped stitches
- Cracked stitches
- Stitches/inch
- Uneven seams
- Crooked, puckered, c
- Needle and feed cut
- Unclipped threads ar
- Raw edge

Self-Check 5	Written Test

Name: _____   Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

1. List responsibilities quality department
    1. ---
    2. --
    3. ---
    4. ---
    5. ---

Information sheet-6	Identify enterprise *production requirements*

1.6 Identify enterprise *production requirements*

Timing requirements

While the topic of timing has already been raised in previous parts in this series, the discussion here will be expanded to include the execution and response time of the software functions.

When discussing timing in embedded software, there are typically two types of timing requirements, rate of execution and response time. Rate of execution deals with the event-to-event timing within a software function. It can be the timing between changes in an output, time between samples of an input, or some combination of both.

The important thing is that the timing specification relates to the execution timing of the function only for example, a software serial input routine that simulates a serial port. The rate of execution is related to the baud rate of the data being received. If the baud rate is 9600 baud, then the routine must be called 9600 times a second to accurately capture each bit as it is received.

Response time, on the other hand, is the time between when a trigger event occurs and the time of the first response to the event within the function. The trigger is, by definition, an event external to the function, so the response-timing requirement is a constraint on the software system that manages and calls the software functions.

Both the rate of execution and response timing requirements should be specified in the requirements document, even if they are not critical. Listing the requirement at least indicates what timing the designer has chosen to meet in the design. It will also become important later in this chapter when we determine the system timing.

Difference between Quality and Quantity

Key Difference: Quality is a measure of excellence or of a state of being. It describes something, either of how it was made, or how if is as compared to others.

Quantity, on the other hand, is the extent, size, or sum of something. It is countable or measurable, and can be expressed as a numerical value

Quality and Quantity are two terms that one often comes across, especially in business, research, physics, and even in everyday life. The main difference between quality and quantity is the fact that quality refers to the characteristic or feature of something, whereas quantity refers to the numerical value of something.

Quality is subjective, whereas quantity is not. Quality is subjective to each individual's opinion. One person might think that something is of great quality, whereas another might think that it is of low quality. However, one cannot dispute quantity. If there are five things, then there are five things. One cannot claim that there are four or six.

Basically, quality is a measure of excellence or of a state of being. It describes something, either of how it was made, or how if is as compared to others.

Quantity, on the other hand, is the extent, size, or sum of something. It is countable or measurable, and can be expressed as a numerical value.

In business, there has been a continuous discussion on the basis of Quality vs Quantity. There are many bosses or managers who focus on quantity as opposed to quality of work. While, there are others who want both quality and quantity in the shortest amount of time possible. There are very few that prefer quality over quantity.

Self-Check 6	Written Test

Name: _____   Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

1. Write Difference between Quality and Quantity

    1. --
    2. --
    3. --
    4. --
    5. ---

Intermediate apparel production

LEVEL – 2

LEARNING GUIDE 54

Unit of competence:-Contribute to Garment Production Process Improvement

Module Title:-Contributing to Garment Production Process Improvement

LG Code: IND IAP2 LG54 10 19

TTLM Code: IND IAP2 LG11 10 19

LO2   Review production process

Instruction Sheet-2	Learning Guide54

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics.

- OHS practices
- Identifying and reviewing housekeeping
- Identifying Production wastes
- Identifying methods of monitoring production outcomes
- Assessing garment production outcomes

This guide will also assist you to attain the learning outcome stated in the coverage. Specifically up on completion of this learning guide, you will be able to:-

- OHS practices
- Identify and reviewing housekeeping
- Identify Production wastes
- Identify methods of monitoring production outcomes
- Assess garment production outcomes

Learning Instructions:

9. Read the specific objectives of this Learning Guide.

10. Follow the instructions described below

11. Read the information written in the "Information Sheets 1-5". Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.

12. Accomplish the "Self-checks1-5"in each information sheets.

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14. If you earned a satisfactory evaluation proceed to "Operation sheets and LAP Tests if any". However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity.

15. After you accomplish Operation sheets and LAP Tests, ensure you have a formative assessment and get a satisfactory result;

16. Then proceed to the next information sheet.

Information sheet-1	Identify and review *OHS practices*

2.1 Identify and review *OHS practices*

Hazard identification and control, risk assessment and implementation of risk reduction measures specific to the tasks described by this unit, and may relate

Arranging ergonomic work places

Ergonomics work place is the process of designing or arranging work places, products and systems so they fit the people who use them. This means producing a work space to accommodate for workers health needs

Handling manual techniques

What is manual handling?

Moving and handling, also known as manual handling is any action involving physical effort to move or support an object or person by:

- Lifting
- Pushing
- Pulling
- Manuoeuvring
- Steadying
- Carrying
- Transporting

By law, employers are required to undertake a risk assessment and do everything that is reasonably participate in order to reduce the risks associated with manual handling.

Manual handling technique for lifting:

- Before lifting an item, think: can you use a manual handling aid instead? Where is the load being moved to? Are there any obstructions?

- Adopt a stable position with feet apart and one leg slightly forwarded to maintain stability. Make sure that you are wearing suitable footwear.
- Get a good holed on the load and hung it close to your body where possible.
- When carrying, keep the load close to your waist for as long as possible. Put the heaviest side of the load closest to your body.
- If you need to, put the load down and adjust your grip before continuing the lift.

Operating standard procedures

Standard operating procedures are written, step by step instructions that describe how to perform a routine activity. Employees should complete them in the exact same way every time so that the business can remain consistent .standard operating procedures help maintain safety and efficiency for departments such as:

- Production /operations
- Sales and customer service
- Employee training
- Legal
- Financial

  A standing operating procedure should never be difficult to read or vaguely worded.

  It should be brief, easy to understand and contain actions steps that are simple follow A good standard operating procedures should clearly outline the steps and inform the employee of any safety concerns.

  The standard operating procedures should be the bases for training any new employees. They should also be updated every year to ensure they stay relevant to the current needs of the organization.

Personal protective equipment

What is personal protective equipment?

It means PPE or equipment you use to guarantee your own safety.

The best safety equipments are:

- Safety for head

  Example: helmet

- Protect your eye

  Example: safety glass

- Hearing protection

  Example: ear plugs

- Maintain a good Respiration

  Example: mask, Dust musk,

- Hand gloves

- Safety shoos

Safe materials handling

As machines became larger, speedier and more complicated, they also introduced new potential hazards. As materials and processes became more complex, they infused the workplace with potential health hazards. And as workers had to cope with mechanization and the demand for increasing productivity, work stress, largely unrecognized or ignored, exerted an increasing influence on their well-being.

The following are six material handling tips that can help:

- Minimize ergonomic risk factors
- Provide personnel protective equipment
- Upgrade your equipment
- Reduce noise and vibrations
- Respond to reports of employee fatigue
- Use the right equipment.

Taking breaks

Encouraging employees to take regular breaks throughout the day, including lunch break, is an easy way for employees to boost employee wellness along with work performance.

Benefits of taking breaks:

- Breaks help to process and train information
- To be more creative
- To cultivate healthier habit
- To be more productive
- 3.1.7 Safe storage of equipment
- Machinery such as forklifts such as be kept in a safe location where it is protected from unauthorized access, weather and accidental damage. It must be kept away from drive ways, walk ways and other areas where access is required. All equipment should be turned off when not in use.
- 3.1.8 Housekeeping
- Housekeeping refers to the management of duties and chores involved in the running of a household, such as cleaning, home maintenance shopping, laundering and bill payment.
- These tasks may be performed by members of the household, or by other persons hired for the purpose.
- Housekeeping including house cleaning that is disposing of rubbish, cleaning dirty surfaces, dusting and vacuuming.
- 3.1.9 Reporting accidents and incidents
- An unfortunate incident that happens unexpectedly and unintentionally, typically resulting in damage, injury or ill health

3.1.10 Environmental practices

Self-Check 1	Multiple Choice Questions

Directions: Answer all the questions Multiple Choice Question

1. Which one of the following is true Safe materials handling

   a. Minimize ergonomic risk factors
   b. Provide personnel protective equipment
   c. Upgrade your equipment
   d. all

2. Which one of the following is not true Personal protective equipment

   a. Protect your eye   c. Employee training
   b. Legal   d. Financial

Information sheet-2	Identifying and reviewing housekeeping practices

2.2 Identifying and reviewing housekeeping practices

Housekeeping practices are part of the workplace quality program as well as the safety program. Poor housekeeping practices such as inadequate cleaning of work areas and equipment may lead to a build-up of bacteria that could contaminate meat product.

Good housekeeping is also fundamental to maintaining a clean, tidy and safe working environment.

This factsheet focuses on the safety aspects of housekeeping.

Poor housekeeping practices may cause accidents in the workplace and/or provide fuel for fires.

Poor housekeeping practices may lead to slips, trips and falls. These accidents may be the result of:

- ➢ work areas and walkways blocked by waste, equipment, unused items, broken items
- ➢ poor maintenance practices
- ➢ inadequate cleaning practices
- ➢ cracked and uneven floors
- ➢ spills
- ➢ hoses and equipment lying around
- ➢ product overflow
- ➢ waste that hasn't been disposed of
- ➢ items that haven't been put away
- ➢ inadequate storage facilities

Some examples of good housekeeping practices include:
- ✓ conducting regular workplace inspections that include housekeeping
- ✓ regular cleaning program both during and before and after shifts
- ✓ workplace procedures for cleaning up spills and other emergency
- ✓ regular, scheduled maintenance program for plant and equipment
- ✓ keeping work areas well maintained, clean, well lit, uncluttered and free of waste
- ✓ cleaning up spills on floors immediately and locating and fixing the cause of spills or leaks
- ✓ keeping walkways clear of obstructions
- ✓ storing materials and equipment neatly and out of the way of production
- ✓ regularly removing waste
- ✓ repairing damaged plant and equipment quickly
- ✓ installing suitable containers for waste products that are conveniently located and regularly emptied to ensure that there is not a buildup of meat products on the floor

Self-Check 2	Written Test

Name: _____

Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

1. List Poor housekeeping practices
   a. --
   b. --
   c. --
   d. --
   e. --

Information sheet-3	Identifying *Production waste*

2.3 Identifying *Production waste*

Waste is unnecessary for any kind of industry because it raises the manufacturing cost of products. For owners or clients waste is anything that cannot create any value. By effective lean production system it becomes possible to decline the generation of wastes and increase the productivity in any industries.

After World War II, Japanese manufacturers were faced with the dilemma of vast shortages of material, financial and human resources. The problems that Japanese manufacturers were faced with differed from those of their Western counterparts. These conditions resulted in the birth of the "lean" manufacturing concept.

7 wastes of lean manufacturing:

        T – Transportation
        E – Excess Inventory
        E – Excess Motion
        W – Waiting
        O – Over production
        O – Over processing
        D – Defects

To make it easy to remember 7 wastes, memorize the word **TEEWOOD** with initials of 7 wastes. In the following, 7 wastes are explained briefly with examples of garment industry activities.
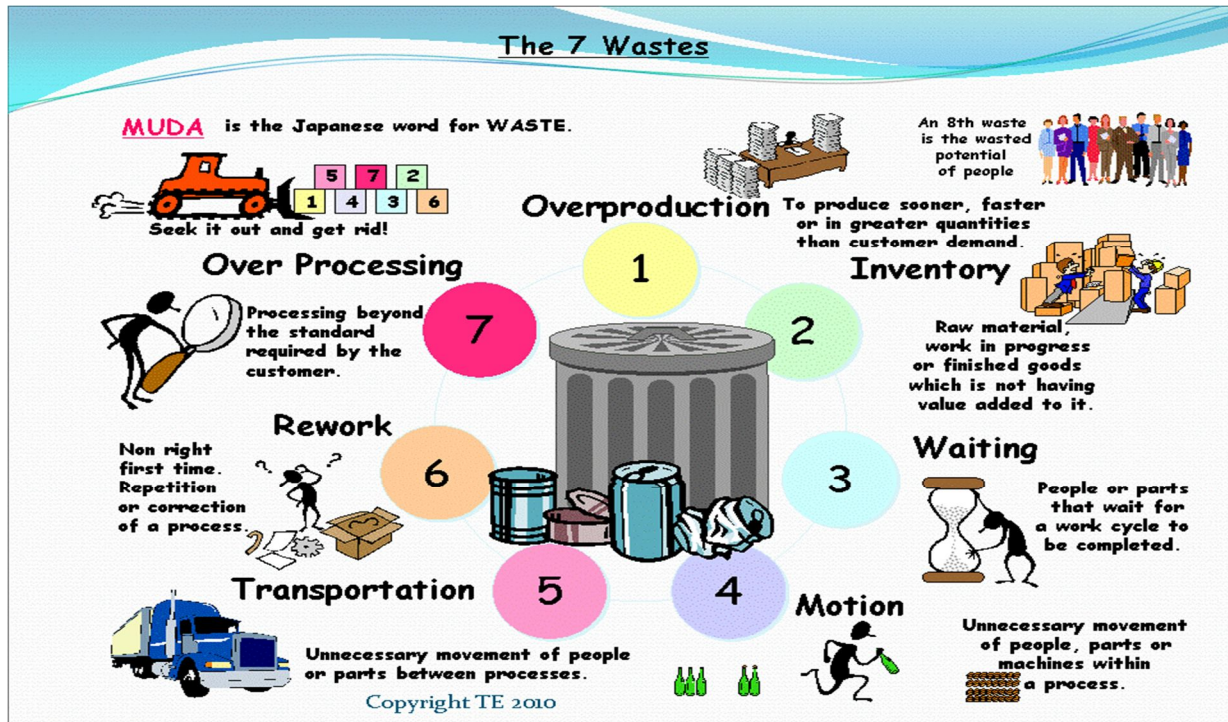
Definition waste

Typically failures can occur at each stage of the supply chain for a garment, which results in waste before the product reaches the customer, after the customer has made the purchase and during the useful lifetime of the garment. Understanding what impacts the durability of products in your portfolio is key to being able to address changes. WRAP has found that there are four fundamental areas where changes to design practices can help extend a garments useable life. These are:

1) Size and fit; one of the primary reasons for discarding undamaged items is that they no longer fit. By designing clothes that can be easily adjusted to allow for reasonable variations in an individual's shape, designers can help increase durability;

2) Fabric quality; higher quality fabrics are more likely to withstand wear and tear over a prolonged period. The nature of that wear and tear depends on the way the item is worn (for example, there are different expectations of children's wear and occasion wear);

3) colors and styles; while there will always be a higher turnover of fashion items, designers can help extend the durability of many garments by using 'classic' or timeless styles and colors, that are less likely to go out of fashion; and

4) Care; designers and retailers have an opportunity to influence how customers care for their garments by ensuring they provide appropriate advice on care and on opportunities for re-use and recycling.

At the fiber, yarn and fabric and garment specification and manufacturing stages of the garment supply chain the following are potential causes of early failure:

● fabric quality; for example the use of low cost fabrics with low stress tolerance and/or the potential to stretch/shrink under recommended consumer washing conditions;

● color effects; for example the use of dyes which do not last recommended consumer washing conditions (for example, dyes where, when washed in accordance with the clothing label instructions leach and/or fade);

● sewing defects; for example weaknesses in seams caused by the use of unsuitable stitching techniques, poor color matches and different tolerance of dyes in sewing threads and fabrics under washing conditions, creasing of the garment during sewing processes (i.e. permanent creases sewn into garments in error), erroneous thread tension and raw edges; and

● garment defects; for example, faulty zippers, irregular hemming, loose buttons, raw edges, improper button holes, uneven parts, inappropriate trimming, and difference in fabric colours.

Self-Check 3	Written Test

Name: _____   Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

2. List 7 wastes of lean manufacturing:

    a. --
    b. --
    c. --
    d. --
    e. ---
    f. --
    g. --

Information sheet-4	Identifying Methods of monitoring *production outcomes*

2.4 Identifying Methods of monitoring *production outcomes*

The term "performance improvement" is used in this chapter to include similar approaches, such as "quality improvement," "continuous quality improvement," "quality assurance," "total quality management," and "human performance technology."

Performance improvement, which is a set of processes used to improve a clinic's outcomes, need not be complex or expensive. Providers need to consider how they can integrate commonsense performance improvement into their daily treatment activities. Some providers may not realize that they probably are collecting data already that can be used to conduct performance improvement.

Performance improvement and outcomes monitoring are becoming required elements in health service delivery. Outcomes monitoring has long been important to industry and health care.
Performance improvement has a critical mission: to use objective information to improve outcomes continually by

- Identifying opportunities for improvement
- Testing innovations
- Reporting the results to the relevant stakeholders

Performance indicators: - databases, and information systems. That can be used in outcomes monitoring and performance improvement.
Monitoring data helps you understand how well the initiative is functioning.
- Better understand the initiative
- Make decisions concerning the programming of the initiative
- Promote awareness of accomplishments
- Recruit support
- Secure funding

Self-Check 4	Written Test

Name: _____   Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

1. Writ the monitoring *production outcomes*

Information sheet-5	Assessing garment production outcomes

2.5 Assessing garment production outcomes

Production consists of the transformation of the raw materials (fabric) into finished products (Shirts) through a sequence of operations.

Outcomes achieved at various stages of the production process

Self-Check 5	Written Test

Name: _____   Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

1. Writ the *garment production outcomes*

Intermediate apparel production

LEVEL - 2

LEARNING GUIDE 55

Unit of competence: - Contribute to Garment Production Process Improvement

Module Title: -Contributing to Garment Production Process Improvement

LG Code: IND IAP2 LG55 10 19

TTLM Code: IND IAP2 LG11 10 19

LO3   Identify improvement opportunities

Instruction Sheet-3	Learning Guide55

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics.

- Identifying Opportunities for improvement

- Making suggestions for improvement

- Test Improvement and Test with appropriate personnel

This guide will also assist you to attain the learning outcome stated in the coverage. Specifically up on completion of this learning guide, you will be able to:-

- Identify Opportunities for improvement

- Make suggestions for improvement

- Test Improvement and Test with appropriate personnel

Learning Instructions:

17. Read the specific objectives of this Learning Guide.

18. Follow the instructions described below

19. Read the information written in the "Information Sheets 1-3". Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.

20. Accomplish the "Self-checks1-3"in each information sheets.

21. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-checks).

22. If you earned a satisfactory evaluation proceed to "Operation sheets and LAP Tests if any". However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity.

23. After you accomplish Operation sheets and LAP Tests, ensure you have a formative assessment and get a satisfactory result;

24. Then proceed to the next information sheet.

Information sheet-1	Identifying opportunities

3.1 Identifying opportunities

The first step of our quality improvement journey begins when someone recognizes that an opportunity for improvement exists.   This can be an outcome or process that is causing concern or identifying the potential for a proactive positive change. However

At least 50% of improvement is working on the right things.

Organizations that are able to engage people in making good, fact-based decisions about what to work on and then execute with laser focus reap huge gains. An opportunity search is key.

That means that we must identify and act upon the opportunities for improvement that will potentially yield the greatest results. This implies that those opportunities not selected are clearly inferior — but this might not always be the case.

Either way, most organizations need help to determine the best course of action to take whether some options are better than others or when all of the options are good. Should we work on all of them? If not, then how many?

The Identify & Quantify the Waste Workshop helps you identify and quantify the biggest opportunities, set priorities, and develop an action plan for improvement.

It shares a straightforward methodology and tools for selecting the right things to work on from a range of options, even when they are all good.

Different factors drive process improvement, such as the need to fasten and simplify processes by reducing duplications and delays, the automation of parts of the process **Performance measures**: On the basis of the "As-Is" processes, determine the average time taken to complete the processes, the average number of consignments awaiting clearance, etc. Compare with targets set.

- **Identify bottlenecks**: Activity Diagrams may help to identify bottlenecks. Can these be eliminated by additional resources, or by re-organizing the processes, carrying out processes in parallel rather than sequentially?
- **Best practice**: Do the current processes use the best international practices and standards.

- **Reduce data requirements**: Identify the minimum information needed to enable each process to be carried out.
- **Harmonize data**: Can the data required by different processes/agencies be harmonized to simplify the requirements of those submitting the data (traders, transport suppliers, customs brokers, etc.)?
- **Single Window**: Can a single input be used by different agencies?
- **Electronic input**: Consider changing from paper input to computer input to reduce delays and errors.

Self-Check 1	Multiple Choice Questions

Directions: Answer all the questions Multiple Choice Question

1. --------Do the current processes use the best international practices and standards.
   - a. Best practice c. Single Window
   - b. cutting   d. none

2. -------Consider changing from paper input to computer input to reduce delays and errors.
   - a. Electronic input.   C. sewing
   - b. shipment inspection   d. all

Information sheet-2	Identifying opportunities

3.2 Make suggestions for improvement

The trouble with suggestions is the pursuit of excellence demands them. Tweaks are another way of enhancing efficiency and achieving better results.

Do:

1. Say, "Thank you. Maybe we can use your ideas next time."
2. Ask if they would like to be involved.
3. Smile and let it go. It's not worth being upset.

Don't:

1. Explain.
2. Lash out.
3. Make excuses.
4. Say, "That's stupid."
5. Hand them the broom in disgust and say you do it!

Ask:

1. What goals are you shooting to achieve?
2. What are your frustrations?
3. How can I help?

5 Suggestions on making suggestions:

1. Avoid thinking everyone has your strength and should do things your way. Do your suggestions align with their strengths?
2. Begin conversations by asking, "What's working?" and, "What's not working?" It's a waste to ask, "How are things going?"
3. Make after action reports – suggestions – part of the system.
4. Ask, "What if we tried ….?"
5. Get involved.

Improvement Journey

Improvement Science

The Improvement Journey is rooted in improvement science, an applied science used by many industries, organizations, and groups that "emphasizes innovation, rapid-cycle testing in the field, and spread in order to generate learning about what changes, in which contexts, produce improvements.

Improvement science is explicitly designed to accelerate learning-by-doing.

The 9 steps of the Improvement Journey help facilitate the application of improvement science,

Improvement Journey
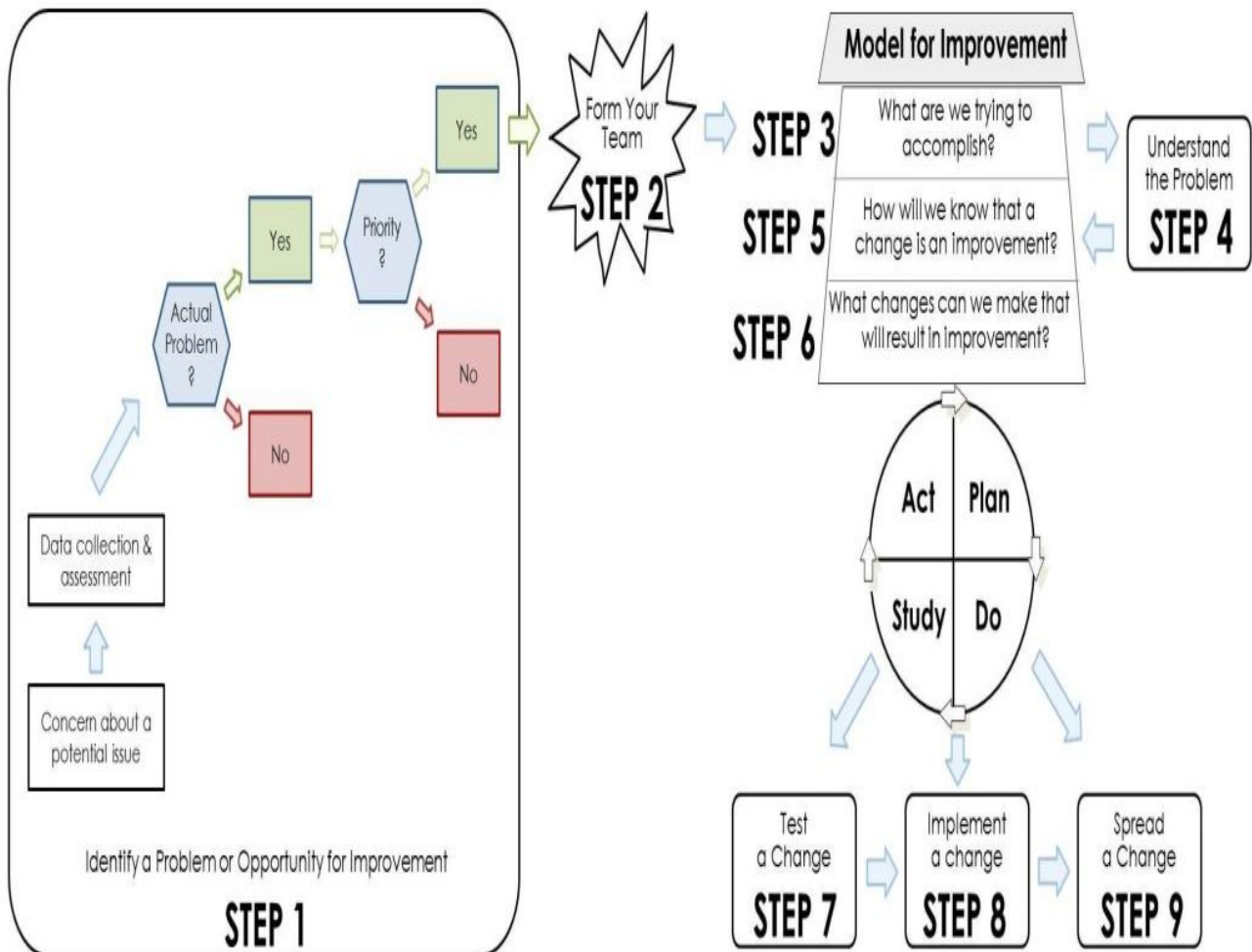
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Improvement Journey
- Step 1: Identify Opportunities
- Step 2: Establish a Team
- Step 3: Set an Aim
- Step 4: Understand the Problem
- Step 5: Establish Measures

Self-Check 2	**Written Test**

Name: _____   Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

1. List 5 Suggestions on making suggestions
    vi.   ---
    vii. ---
    viii. ---
    ix.   ---
    x.   ---

Information sheet-3	**_Testing_ Improvement with _appropriate personnel test_**

3.3 _Testing_ Improvement with _appropriate personnel test_

Testing organizations are often under the gun to test products, and they have little time to spend on process improvement.

By developing and following a process improvement plan, an organization can make substantive improvement and improve productivity.

Often the mere mention of a process improvement project will instill fear into the team and kill the project. One effective way to avoid this common pitfall is to avoid making a commotion about the project and steer the team in small steps along the path to improvement.

- measured against research **_appropriate personnel_**
  - trialled
  - verified
  - piloted
  - m a n a g e r
  - s u p e r v i s o r
  - c o l l e a g u e
  - s p e c i a l i s t   s t a

20 tips to improve employee engagement and performance

    1 – Communicate clear goals and expectations to your employees
    2 – Share information and numbers
    3 – Encourage open communication
    4 – Not communicating or communicating late can damage engagement
    5 – Actively promotes organizational effectiveness, reputation, values and ethics
    6 – Cultures
    7 – Let staff tell their own stories
    8 – Trusts
    9 – Build engagement
    10 – Encourage innovation
    11 – Create a strong team environment
    12 – Sense of belonging
    13 – Provide constant feedback on the positives
    14 – Give immediate feedback
    15 – Show how feedback is being used
    16 – Support employees in their work and growth
    17 – Collaborate and share on problem-solving
    18 – Delegations
    19 – Incentives
    20 – Celebrate both financial and non financial achievements

Self-Check 3	Written Test

Name: _____   Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

1. List 5 tips to improve employee engagement and performance
    i. ---
    ii. ---
    iii. ---
    iv. ---
    v. ---

Intermediate apparel production

LEVEL –2

LEARNING GUIDE 56

Unit of competence:-Contribute to Garment Production Process Improvement

Module Title: -Contributing to Garment Production Process Improvement

LG Code: IND IAP2 LG56 10 19

TTLM Code: IND IAP2 LG56 10 19

LO4   Implement improvements

Instruction Sheet-4	Learning Guide56

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics.

- Identifying Implications
- Identifying desired result
- Identifying and implementing Methods of addressing any negative implications
- Conducting Consultation with relevant personnel
- Implementing Improvement
- Monitoring Improvement
- Making adjustments for improvement

This guide will also assist you to attain the learning outcome stated in the coverage. Specifically up on completion of this learning guide, you will be able to:-

- Identify Implications
- Identify desired result
- Identify and implement Methods of addressing any negative implications
- Conducting Consultation with relevant personnel
- Implement Improvement
- Monitor Improvement
- Making adjustments for improvement

Learning Instructions:

25. Read the specific objectives of this Learning Guide.

26. Follow the instructions described below

27. Read the information written in the "Information Sheets 1-7". Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.

28. Accomplish the "Self-checks1-7"in each information sheets.

29. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-checks).

30. If you earned a satisfactory evaluation proceed to "Operation sheets and LAP Tests if any". However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity.

31. After you accomplish Operation sheets and LAP Tests, ensure you have a formative assessment and get a satisfactory result;

Then proceed to the next information sheet

Information sheet-1	
	Identifying Implications of improvement

4.1.   Identifying Implications of improvement

Implementation is a commonly used term in relation to change, with various definitions covering a spectrum of steps.

Implementation in the context of quality improvement is a more narrow focus than how the term is commonly used: "The aim of this narrow scope of implementation is to make sure the infrastructure is in place to make the change long-lasting and successful. This includes issues such as training, documentation, standardization, adequate resources, and social considerations…"

Self check 1	Questions

Directions: Answer all the questions listed below.

PART I   TRUE/FALSE

If the statement is correct write <u>TRUE</u> if the statement is in correct write <u>FALSE</u>

_____1. Implementation is a commonly used term in relation to change, with various definitions covering a spectrum of steps.

Information sheet-2	Identifying desire result of improvement and method of measuring outcome established

4.2. Identifying desire result of improvement and method of measuring outcome established.

Three Types of Measures

Use a balanced set of measures for all improvement efforts: outcomes measures, process measures, and balancing measures.

Outcome Measures

How does the system impact the values of patients, their health and wellbeing? What are impacts on other stakeholders such as payers, employees, or the community?

- For diabetes: Average hemoglobin A1c level for population of patients with diabetes
- For access: Number of days to 3rd next available appointment
- For critical care: Intensive Care Unit (ICU) percent unadjusted mortality
- For medication systems: Adverse drug events per 1,000 doses
- Model for Improvement: How will we know that a change is an improvement?

Measurement is a critical part of testing and implementing changes; measures tell a team whether the changes they are making actually lead to improvement. Measurement for improvement should not be confused with measurement for research. This difference is outlined in the table below.

	Measurement for Research	Measurement for Learning and Process Improvement
Purpose	To discover new knowledge	To bring new knowledge into daily practice
Tests	One large "blind" test	Many sequential, observable tests
Biases	Control for as many biases as possible	Stabilize the biases from test to test
Data	Gather as much data as possible, "just in case"	Gather "just enough" data to learn and complete another cycle

| **Duration** | Can take long periods of time to obtain results | "Small tests of significant changes" accelerates the rate of improvement |

Self-Check 2	Written Test

Name: _____   Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

2. List Three Types of Measures
   i.   --
   ii. --
   iii. --

Information sheet-3	Identifying and implementing methods of addressing any possible negative implications communicate improvement

4.3 Identifying and implementing methods of addressing any possible negative implications communicate improvement

Change is not only a technical issue, but the success of a change can largely be driven by organizational culture and social factors. The increased permanence of a change associated with moving from testing to implementation is usually accompanied by increased awareness of and reaction to change. Although testing a change prior to implementation reduces the risk of a problem or failure, a spectrum of reactions from impacted staff should be expected when a change is announced. Common behaviors include:

- **Resistance:** impede change that is perceived as threatening
- **Apathy:** showing little or no interest in the change
- **Compliance:** publicly acting in accord while privately disagreeing with the change
- **Conformance:** changing behavior as a result of real or imagined group pressure
- **Commitment:** becoming bound emotionally or intellectually to the change

Self-Check 3	Written Test

Name: _____ Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

1. List Common implementation behaviors include

    1. --
    2. --
    3. --
    4. --
    5. --

Information sheet-4	Conducting consultation with relevant personnel communicate

4.4 Conducting consultation with relevant personnel communicate

Communication

Consumers can be encouraged to buy second-hand and sustainable clothing and recycle used clothing through appropriate communication. found out that there is a lack of knowledge of the social and environmental impact of their behavior. Most people lack knowledge regarding how the garment is made, or what the environmental consequences of artificial fibers and intensive cotton

production are. This lack of awareness is thought to be a result of a lack of media coverage. Communication related to high-quality clothing and "value for money" thinking is to be increased. The second-hand clothing market is powered by the low price of clothing, and also by the possibility to reduce the amount of disposed clothing and environmental pollution Cultural differences are remarkable, and for example in the USA, the majority of the respondents of the study have purchased second-hand clothing when the same number in China is 10 per cent.

However, there was no remarkable difference in second- hand clothing purchasing behavior between young consumers in these countries. Therefore, young consumers are the major target market for the second-hand clothing trade.

In the case of sustainable and circular fashion, the challenge is to share the message related to the reduction of consumption impacts and change consumer behavior, but at the same time sell the products. For effective communication, the intended audience and the most effective forms of transmission should be defined.

Communication should be short, include creative messages to be delivered through a wide variety of media, by using highly engaging visual or non- verbal forms. According key elements for CE fashion communication also include relevant research (industry trends, competitor analysis etc.), coherent values, compelling products, and feedback loops. have also discussed about the important role of celebrities to promote a brand, but also to be involved as designers, advocates and entrepreneurs. Discuss about "sustainable communication" – a set of strategies and subsequent practices that have a relevant role in disseminating information about an organization's environmental and social behaviors'. They point out that the web has become the predominant communication channel for sustainability initiatives. Social media channels are the most commonly used ways to reach a wider audience and enable companies to contact consumers who have expressed a prior interest, for example, in sustainability issue. Companies are able to share their information easily with the end customers but that possibility has not been effectively utilized. Emphasized the importance of provenance and transparency in communication. Companies are expected to provide reports on sustainability and create ecologically focused collections. pointed out the importance of improving the store-related attributes of eco-fashion (e.g. store design, store's ethical practices and shop convenience) to meet consumers' needs and affect their eco-fashion consumption, and not only to concentrate on product-related attributes like product design, quality and price. The price of circular clothing can be decreased when there are more materials and products available and the novel processes are stable and common. This will also affect the availability of circular clothes, like also pointed out. Due to the fact that consumers buy environmentally responsible clothing in order to enhance their reputation and gain recognition from others, the brand and garment should be easily recognizable. Promotion and product labeling should highlight the environmental damage the clothing industry causes to increase consumer effectiveness, for example, pointing out how much water is consumed in the production

of a regular t-shirt compared with an environmentally responsible t-shirt. Happiness can be affected, for example, by retail atmosphere.

Self check 4	Questions

Directions: Answer all the questions listed below.

PART I   TRUE/FALSE

If the statement is correct write <u>TRUE</u> if the statement is in correct write <u>FALSE</u>

_____ 1. Measurement is a critical part of testing and implementing changes; measures tell a team whether the changes they are making actually lead to improvement.

Information sheet-5	Implementing Improvement

4.5 Implementing Improvement

Here are 6 tips for implementing continuous process improvement:

1. **Solicit feedback.** You'll almost always see the results of failing processes, but you may not necessarily be able to identify the root causes. Solicit feedback from your team on an ongoing basis. Make sure you're open to suggestions about how things are being done.

2. **Share more, not less.** Even in a small company, silos emerge. A policy of more sharing will help everyone stay in touch with what others are doing, and create a collective expectation. Keeping everyone pointed in the same direction is hard; sharing more about what's going on, how you're doing things, reasoning behind decisions, etc. will help.

3. **Document stuff.** I often find startups are uninterested in documenting what they're doing. They "fly by the seat of their pants" because that's what a startup is all about. I prefer to document things, even if it's jotting some quick notes down so I can remember what I was thinking and the context at certain points in time.

4. **Don't automatically blame the tool.** It's not the hammer's fault if the person swinging it uses the wrong end. It just won't work well. Most tools are decent enough, they're just used incorrectly.

5. **Identify changing requirements.** Over time your needs will change. You need to stay aware of this, so you can change processes accordingly.

6. **Think Lean.** Lean Startup (build->measure->learn) is quite apropos for continuous process improvement. When designing a process (and picking the appropriate tools), define the goal you're aiming to achieve. Time box the experiment (implementing a new/changed process) and measure the results qualitatively and quantitatively. If you think of process changes as cycles rather than big, chunky steps, it keeps things rolling at a good speed.

Self-Check 5	Written Test

Name: _____

Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

1. List 6 tips for implementing continuous process improvement:
    1. --
    2. --
    3. --
    4. --
    5. --
    6. --

Information sheet-6	Monitoring Improvement to ensure correct implantation and effectiveness

4.6 Monitoring Improvement to ensure correct implantation and effectiveness

Monitoring is a form of evaluation or assessment, though unlike <u>outcome or impact</u> evaluation, it takes place shortly after an intervention has begun (formative evaluation), throughout the course of an intervention (process evaluation) or midway through the intervention (mid-term evaluation).

Monitoring is not an end in itself. Monitoring allows programmed to determine what is and is not working well, so that adjustments can be made along the way. It allows programmed to assess what is actually happening versus what was planned.

Monitoring allows programmed to:

- Implement remedial measures to get program me back on track and remain accountable to the expected results the programmed is aiming to achieve.
- Determine how funds should be distributed across the program me activities.
- Collect information that can be used in the evaluation process.

When monitoring activities are not carried out directly by the decision-makers of the program me it is crucial that the findings from those monitoring activities are coordinated and fed back to them.

"Testing is about learning if the change will result in an improvement.
Implementation is about how to make the change an integral part of the system."
(Improvement).

<u>These following ideas are important in implementing complex changes</u>

- Managing implementation as a series of PDSA cycles
- Providing supporting during and after the implementation to ensure that improvement is achieved and maintained
- Recognizing and addressing the social aspects of implementing a change

Self-Check 6	Written Test

Name: _____   Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

1. List important in implementing complex changes

    v.   --

    vi.   ---

    vii.   ---

Information sheet-7	Making Adjustments to improvement

4.7 Making Adjustments to improvement

Importance of Measurement for Improvement

Measurement in quality improvement allows us to understand whether we have reached our improvement aims. To do so, we must define and operational size what 'better' looks like and measure to know if the changes we make result in the improvements we seek.

Measurement for improvement allows us to answer questions such as:

- What is the current state?
- What does "better" look like?
- How will we recognize better when we see it?
- What are factors, such as processes and activities, have an impact the outcomes?
- Are the processes stable and reliable?
- How do we know if a change is an improvement

Self-Check 7	Written Test

Name: _____   Date: _____

Short Answer Questions

Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

1. Write the Importance of Measurement for Improvement