



BASIC HOME/OFFICE ELECTRICAL/ELECTRONICS EQUIPMENT SERVICING

Level-II

Learning Guide-1

Unit of Competence:

Apply Continuous Improvement Processes (Kaizen)

Module Title:

Apply Continuous Improvement Processes (Kaizen)

LO 1: Satisfy quality system requirements in daily work



Information sheet 1: Accessing information on quality system

Quality information systems (QIS) are providing all the quality-relevant information during the whole life cycle of a product to all the people involved. With regard to e-learning applications this means that a QIS should provide quality-relevant information to the authors of e-learning materials as well as to the instructors and the learners using them. In this work it is described how such a QIS can be implemented in the context of e-learning applications. In this connection a prototypic system design and strategies for the integration of a QIS into the information system infrastructure of e-learning providers are presented.

Many concepts of quality management are not only applicable during the production and usage of material products, but also in the context of immaterial ones - like for example e-learning applications. Nevertheless quality management concepts are hardly used in this regard today. As a basis for quality management so-called quality information systems (QIS) can be used. They are providing all the quality-relevant information during the whole life cycle of a product to all the people involved. In the context of e-learning this means that a quality information system should provide all the quality-relevant information to the authors of e-learning materials, to the instructors and tutors, and also to the learners.

In this work after a look on the State of the Art some fundamental terms and ideas of quality information systems will be introduced, and it will be pointed out how they can be used in the special case of e-learning. In particular it will be described which information could be quality-relevant and how it should be prepared for the different users of the system. Then the focus of the work will be on the implementation of such a quality information system. After a detailed requirements analysis a system design will be presented. Moreover it will be shown how an information system like this could be integrated into the existing information system infrastructure of e-learning providers.



Self-Check -1	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. _____ are providing all the quality-relevant information during the whole life cycle of a product to all the people involved.(3 points)
 - A. Quality Information system
 - B. Management system
 - C. ICT
 - D. Services
2. Describe similarities and differences between management and information system.(5 points)

Note: Satisfactory rating - 3 and 5 points

Unsatisfactory - below 3 and 5 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Information Sheet-2	Recording and reporting quality control data
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Data quality refers to the state of qualitative or quantitative pieces of information. There are many definitions of data quality but data is generally considered high quality if it is "fit for its intended uses in operations, decision making and planning". Moreover, data is deemed of high quality if it correctly represents the real-world construct to which it refers. Furthermore, apart from these definitions, as the number of data sources increases, the question of internal data consistency becomes significant, regardless of fitness for use for any particular external purpose. People's views on data quality can often be in disagreement, even when discussing the same set of data used for the same purpose. When this is the case, Data Governance is used to form agreed upon definitions and standards for data quality. In such cases, data cleansing, including standardization, may be required in order to ensure data quality

Data quality management is a set of practices that aim at maintaining a high quality of information. DQM goes all the way from the acquisition of data and the implementation of advanced data processes, to an effective distribution of data. It also requires a managerial oversight of the



information you have. Effective DQM is recognized as essential to any consistent data analysis, as the quality of data is crucial to derive actionable and – more importantly – accurate insights from your information.

There are a lot of strategies that you can use to improve the quality of your information. DQM processes prepare your organization to face the challenges of digital age data, wherever and whenever they appear. In this article, we will detail everything which is at stake when we talk about DQM: why it is essential, how to measure data quality, the pillars of good quality management, and some data quality control techniques. Reporting being part of an effective DQM, we will also go through some data quality metrics examples you can use to assess your efforts in the matter.

Non-conformances mean something is not right. As a business, you need to not only correct a defective process or action but also understand why it happened in the first place.

Therefore, an important part of non-conformances is undertaking a root cause analysis – why did it happen in the first place, and how can it be prevented in the future?

In some literature, you will see two terms used, sometimes interchangeably but, they both have slightly different meaning;

- **Correction action** – is the step you take to fix something immediately, making the product or service acceptable to use. This is a short-term fix.
- **Corrective action** – is the process of understanding in the longer-term why the problem arose and what needs to change to prevent it in the future.

In order to record and understanding non-conformances, you need to ask searching questions. Think of these questions in a funnel shape this will eventually bring to you to the problem, but also identifies what the issue is.

This means you can begin the process of changing what is impacting on non-conformances;

- Is it the material? – why is the material wrong in the process? What could change?
- Is it the equipment? – is machinery and equipment old, incompatible or proving problematic?
- Is it the method? – why is this a problem? Has something changed that makes certain parts obsolete?
- Is it an environmental issue, such as building being too small/no longer compatible?

Thus, to write or record non-conformances you need to:

Identify clearly what the problem was or is – this is called the ‘Problem Statement’. Include the ‘who, what, why, and when’.

Raise the non-conformance against the system, and not a person and include the location and evidence needed.

Investigate the problem by asking ‘why?’ of the process, the method and the system.



Use familiar terminology that the auditor will understand – badly written non-conformances are one thing, but one written with non-explained jargon are just as bad.

Finish the non-conformance report with what changes have been made and how the process etc. will continue to be monitored.

Self-Check -2	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

3. _____ refers to the state of qualitative or quantitative pieces of information(3 points)
- C. Information system C. Data recording
D. Information D. Data quality
4. Describe data quality management .(5 points)

Note: Satisfactory rating - 3 and 5 points

Unsatisfactory - below 3 and 5 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet- 3	Following quality control procedures
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Quality control (QC) is a procedure or set of procedures intended to ensure that a manufactured product or performed service adheres to a defined set of quality criteria or meets the requirements of the client or customer.

Through the quality control process, the product quality will be maintained, and the manufacturing defects will be examined and refined. The quality control process is divided into three separate processes, which are IQC (incoming quality control), IPQC (in-process quality control) and OQC (outgoing quality control).

A pre-production inspection tells the buyer which kind of raw materials (or components) will be used. Factories are often suspected of lowering their costs by purchasing substandard materials, and this can be disastrous for the buyer (e.g. the wrong kind of chip in an electronic device).

The pre-production inspection can also focus on the processes followed as production starts. Sometimes this can also be critical, as Chinese factories very often cut corners and do not respect the buyer's blueprints (e.g. patterns for cutting fabric are received from the buyer, and they are modified to make the process easier and faster).

A during production inspection (often called "DUPRO" in the industry) allows the buyer to have an idea of average product quality, early in the production cycle. It is the most useful and the most under-rated tool at the disposal of importers, who often only rely on final inspections.

It usually takes place once some finished products have come out of the lines. If quality issues are found, what is already produced might be re-workable, and corrective actions can be taken for the rest of the job. It gives buyers the time to plan ahead, and even to avoid delays (repairs and re-inspections take much more time when problems are noticed after all production is finished).

The final random inspection (also called "pre-shipment inspection") is by far the most common type of QC check. It takes place once 100% of shipment quantity is finished and at least 80% is packed, so it can be a real random inspection

The container loading inspection, like the pre-production inspection, it is seldom used. But it can be a worthwhile option in some specific cases.



Self-Check -3	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. _____ is a procedure or set of procedures intended to ensure that a manufactured product or performed service adheres to a defined set of quality criteria or meets the requirements of the client or customer.. (3 points)
- A. Data processing C. Quality control
B. Accessing information D. Assessments

Note: Satisfactory rating - 3 points

Unsatisfactory - below 3 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-4	Recognizing and reporting non-conformances or problems
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A **non-conformance report** documents the details of a **non-conformance** identified in a quality audit or other process review. The objective of the **report** is to make an unambiguous, defensible, clear and concise definition of the problem so that corrective action can and will be initiated by management.



A non-conformance report, or non-conformity report or NCR, is a construction-related document that addresses specification deviation or work that fails to meet quality standards. The report is used as part of quality control processes by detailing the problem, how it occurred, and how to prevent it from happening again. An NCR also is used in determining a resolution with a customer and documenting any corrective changes made.

Non-Conformance Report Items

A non-conformance report must include at a minimum the following information:

- What is the main reason for the NCR or what went wrong
- Why the work doesn't meet specs
- What can be done to prevent the problem from happening again
- Explanation of corrective action taken or to be taken
- Key players involved in the NCR and specs affected under the NCR

When to Issue a Non-Conformance Report

There are many common scenarios in the construction industry that require the issuance of an NCR:

Work that was not built as indicated in the approved Issued for Construction drawings

Work that fails to meet specified tolerances as established in the project specifications

Work that is being performed using non-approved methods or standards

Failure to follow the approved testing and inspection plan

Testing results demonstrate that the product does not meet established and approved standards

Material used that has not been approved as a substitute (equal or similar)

Design is not accurate and does not represent actual field conditions

Approved procedure was not followed, and quality defects have been identified by the project team

Who Can Issue an NCR?

A non-conformance report can be issued by any of the project team members. The report must present a non-debatable fact and include clear and sufficient backup information that supports the claim. The NCR follows agreed-upon conditions for tracking and closing the report after appropriate corrections are made. Non-conformance reports often are used as training tools for team leaders to train other employees to help prevent similar situations from happening again.

Non Conformance Report Consequences



While NCRs are critical for quality control, they can introduce additional problems into the contract. Sometimes NCRs can be seen by financial institutions as red flags or can be identified as poor performance situations by the contractor, with the potential for financial impact on future projects. In some situations, NCR's can open the door to claims and even further arbitration processes. NCR's can also lead to delays in the construction process when additional resources are needed to correct the situations or areas being affected by the report.

There is a lot of paperwork and research associated with an NCR, as the issuing party must gather information, specs, standards, and list procedures that were affected by the situation.

Self-Check -4	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. _____ is a document that addresses specification deviation or work that fails to meet quality standards. (3 points)
A. non-conformance report C. Production defect
B. Quality control report D. Inspection report
2. What are the consequence of the reports of production defect? Describe .(4 points)

Note: Satisfactory rating –4 points

Unsatisfactory - below 3 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____



Information Sheet-5	Sustainable energy principles and work practices
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The noun 'sustainability' first appeared in English around 1972 and is typically used in connection with systems that support life on earth. The Oxford English Dictionary defines the ecological meaning of 'sustainability' this way: 'Of, relating to, or designating forms of human economic activity and culture that do not lead to environmental degradation, especially avoiding the long-term depletion of natural resources' . Literature is also evident of another perspective in the form of corporate sustainability. Sustainability Principles and Practice gives an accessible and comprehensive overview of the interdisciplinary field of sustainability. The focus is on furnishing solutions and equipping the student with both conceptual understanding and technical skills for the workplace. Each chapter explores one aspect of the field, first introducing relevant theory and presenting issues, then supplying tools for working toward solutions. Elements of sustainability are examined piece by piece, and wide coverage ranges over ecosystems, social equity, environmental justice, food, energy, product life cycles, cities, and more. Techniques for management and measurement as well as case studies from around the world are provided.

Energy management requires behavioral changes in people (to reduce wasteful energy usage) and energy efficient technologies (e.g.: installation of energy efficient appliances, improve lighting systems while maximum utilization of natural light, green building designs, zero emission transport, use of renewable energy solutions etc.). Highlighted the importance of shifting from fossil fuel to renewable energy such as hydro, geothermal, wind, solar and biomass power which are sustainable energy solutions. ...

... Hence it is essential to adopt clean technologies and shift to renewable energy options. In order to manage emissions, strategies and tools such as carbon footprint analysis, strategic assessment of climate risks and opportunities, energy efficient measures, renewable energy use, emission trading and investing in carbon credits were suggested provided empirical evidence on reduction of emissions as an effect of lean production. .



Self-Check -5	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. _____ requires behavioral changes in people (to reduce wasteful energy usage) and energy efficient technologies. (3 points)

- A. Energy utilization
- B. Human resource management
- C. Sustainability principle
- D. Energy management

Note: Satisfactory rating – 3 points

Unsatisfactory - below 3 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-6	Promoting sustainable energy principles and work practices
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Energy conservation has become a very relevant social issue. There is a growing body of knowledge in the literature focused on supporting consumers in reducing their personal carbon footprint in their domestic context. In the workplace, however, most of the research focuses on optimizing formalized production processes and investing in energy efficient equipment. This leaves the question open of the role of workers in energy conservation. To explore this question, and overcome this bias, we conducted a series of participatory action research studies in which we introduced new smart metering technologies in a large organization and observed their contribution in supporting sustainable energy practices at work. In the paper we discuss the opportunity and risks posed by using this technology to make energy practices more transparent.

The energy conservation through energy efficiency in the building has acquired prime importance all over the world. The four main aspects for energy efficiency in a building include first and foremost the nearly zero energy passive building design before actual construction, secondly the usage of low energy building materials



during its construction, thirdly use of energy efficient equipments for low operational energy requirement and lastly integration of renewable energy technologies for various applications. These aspects have been discussed along with their economics and environmental impacts briefly in this paper.

The first aspect is related to the prior design before construction of a solar passive building techniques adapted all over the world not only for passive heating/cooling but also for daylighting the building. Second is utilizing the low embodied energy building materials for building construction. The third aspect deals with the operational energy conservation using energy efficient equipments in the building. Lastly, the building has to include utility

Self-Check -6	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

2. _____ Describe how to promote sustainable energy principles. (3 points)

Note: Satisfactory rating – 3 points

Unsatisfactory - below 3 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions



List of Reference Materials

1. Quality Information and inspection: <https://qualityinspection.org/quality-inspection-services-china/Community Asset Mapping>. Available on:



BASIC HOME/OFFICE ELECTRICAL/ELECTRONICS EQUIPMENT SERVICING

Level II

Learning Guide-2

Unit of Competence: Apply Continuous Improvement Processes (Kaizen]

Module Title: Applying Continuous Improvement Processes (Kaizen]

LG Code: LSA CSW1 M01 LO2-LG-02

TTLM Code: LSA CSW2 M01 TTLM 0219v1

LO 2: Analyze opportunities for corrective and/or optimization action



Information Sheet-1	Comparing current work practices, procedures and process/equipment
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Definition. Safe work practices are generally written methods outlining how to perform a task with minimum risk to people, equipment, materials, environment, and processes. Safe job procedures are a series of specific steps that guide a worker through a task from start to finish in a chronological order.

Key Learning Outcomes:

1. Locate and use company documentation relevant to the task. ...
2. Complete a risk management form.
3. Run a toolbox talk.
4. Use safe and effective communication practices.
5. Identifying safe work practices and take corrective action where necessary.

What are workplace procedures?

It communicates an organization's values and the organization's expectations of employee behaviors and performance. Workplace policies often reinforce and clarify standard operating procedure in a workplace. ... Many routine matters can be dealt with through simple workplace procedures and processes being put in place.

What are workplace policy & procedures?

Policies and procedures can fulfil employers' obligations and responsibilities under certain legislation such as work health and safety and discrimination legislation. ... Policies and procedures provide a fair, predictable and consistent approach to managing the workplace and workplace issues.

Companies should establish Safe Work Practices/Safe Job Procedures for addressing significant hazards or for dealing with circumstances that may present other significant risks/liabilities for the company. They should reflect your company's approach to controlling hazards.

Some regulations require employers to have written procedures/instructions for specific activities/conditions. The number of practices/procedures and the degree of detail will depend on the range of work activities your company performs. It is important that management and supervision are involved in the development of safe work practices and that they provide adequate training for workers likely to follow these practice

Safe work practices

Safe work practices are generally written methods outlining how to perform a task with minimum risk to people, equipment, materials, environment, and processes.

Safe job procedures

Safe job procedures are a series of specific steps that guide a worker through a task from start to finish in a chronological order. Safe job procedures are designed to reduce the risk by minimizing potential exposure.



Self-Check -1	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. _____ are generally written methods outlining how to perform a task with minimum risk to people, equipment, materials, environment, and processes. (3 points)
- B. Energy utilization
 - C. Major management
 - C. Safe work practices
 - D. Safe Job procedures

Note: Satisfactory rating – 3 points

Unsatisfactory - below 3 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet-2	Recognizing variances that indicate abnormal or sub-optimal performance
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Common Causes of Variance

Common causes of variance are the usual quantifiable and historical variations in a system that are natural. Though variance is a problem, it is an inherent part of a process—variance will eventually creep in, and it is not much you can do about it. Specific actions cannot be taken to prevent this failure from occurring. It is ongoing, consistent, and predictable.

Characteristics of common causes of variance are:

- Variation predictable probabilistically
- Phenomena that are active within the system
- Variation within a historical experience base which is not regular
- Lack of significance in individual high and low values

This variation usually lies within three from the mean where 99.73% of values are expected to be found. On a control chart, they are indicated by a few random points that are within the control limit. These kinds of variations will require management action since there can be no immediate process to rectify it. You will have to make a fundamental change to reduce the number of common causes of variation. If there are only common causes of variation on your chart, your process is said to be “statistically stable.”

When this term is applied to your chart, the chart itself becomes fairly stable. Your project will have no major changes, and you will be able to continue process execution hassle-free.

Examples of Common Causes of Variance

Consider an employee who takes a little longer than usual to complete a specific task. He is given two days to do a task, and instead, he takes two and a half days; this is considered a common cause of variation. His completion time would not have deviated very much from the mean since you would have had to consider the fact that he could submit it a little late.

Here’s another example: you estimate 20 minutes to get ready and ten minutes to get to work. Instead, you take five minutes extra getting ready because you had to pack lunch and 15 additional minutes to get to work because of traffic.

Other examples that relate to projects are inappropriate procedures, which can include the lack of clearly defined standard procedures, poor working conditions, measurement errors, normal wear and tear, computer response times, etc. These are all common cause variations.



Special Causes of Variance

Special Cause of Variance, on the other hand, refers to unexpected glitches that affect a process. The term Special Cause of Variance was coined by W. Edwards Deming and is also known as an “Assignable Cause.” These are variations that were not observed previously and are unusual, non-quantifiable variations.

These causes are sporadic, and they are a result of a specific change that is brought about in a process resulting in a chaotic problem. It is not usually part of your normal process and occurs out of the blue. Causes are usually related to some defect in the system or method. However, this failure can be corrected by making changes to affected methods, components, or processes.

Characteristics of Special Causes of Variation are:

- New and unanticipated or previously neglected episode within the system
- This kind of variation is usually unpredictable and even problematic
- The variation has never happened before and is thus outside the historical experience base

On a control chart, the points lie beyond the preferred control limit or even as random points within the control limit. Once identified on a chart, this type of problem needs to be found and addressed immediately you can help prevent it from recurring.

Self-Check -1 Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. _____ are the usual quantifiable and historical variations in a system that are natural. (3 points)

- A. Recognizing variance C. Cause of variation
B. Variance management D. Common causes of variance

2. Describe possible common causes of variances in abnormal performance. (5 points)

Note: Satisfactory rating – 8 points

Unsatisfactory - below 4 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Page 18 of 49

Score = _____

Rating: _____



Name: _____

Date: _____

Short Answer Questions

Answer Sheet



Information Sheet-3	Collecting and Evaluating batch and historical records
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The choice of method for batch and historical records influenced by the data collection strategy, the type of variable, the accuracy required, the collection point and the skill of the enumerator. Links between a variable, its source and practical methods for its collection can help in choosing appropriate methods. The main data collection methods are:

- Registration: registers and licences are particularly valuable for complete enumeration, but are limited to variables that change slowly, such as numbers of fishing vessels and their characteristics.
- Questionnaires: forms which are completed and returned by respondents. An inexpensive method that is useful where literacy rates are high and respondents are co-operative.
- Interviews: forms which are completed through an interview with the respondent. More expensive than questionnaires, but they are better for more complex questions, low literacy or less co-operation.
- Direct observations: making direct measurements is the most accurate method for many variables, such as catch, but is often expensive. Many methods, such as observer programmes, are limited to industrial fisheries.
- Reporting: the main alternative to making direct measurements is to require fishers and others to report their activities. Reporting requires literacy and co-operation, but can be backed up by a legal requirement and direct measurements.

The choice of the many methods for collecting fishery data will depend on the variables to be measured, the source and the resources available. In many cases, there is a natural way to collect particular variables. For example, relatively static variables, like vessel length or engine size, are often best collected through a registration system. Highly dynamic variables, like catch or effort, may often be best obtained through daily records, such as logsheets.

For the same variable, the methods can be different depending on the type of fishery. For example, for a large-scale fishery, catch data would be best collected from logbooks, whilst in a small-scale fishery interviews and/or questionnaires would often be the best method. The sources (fishers, processors etc.) are also an important factor for the choice and design of methods. Buyers, processors and other intermediaries are likely to keep their own sales records, which should be used as the basis of data forms. Small-scale fishers often do not keep any records, and data acquisition in this case would be restricted to one-to-one interviews, but the interview structure could be more flexible.



Data collection should be conducted at intervals sufficiently frequent for the management purpose. For example, data for stock monitoring have to be collected constantly, while household data can be at much longer time intervals. In general, frequently collected data will probably have to rely on fishers or industry personnel providing the data. Less frequent data can use enumerators since the costs of collection are much lower.

There are cases when fishery data collection programs cannot be operated on a regular basis because of operational limits. These cases include small scale fishing operations in many inland or remote marine areas, where fishing operations are spread over a large area with part-time fishers using a large array of fishing gears and techniques, sometimes in many different habitats. Under these circumstances, a number of alternative approaches can be taken to assess the fisheries, including:

- Limited scope census or sample-based pilot surveys;
- Household surveys or surveys for fish consumption
- Trade patterns;
- Logbook systems.

All of these can be used for cross-checking landings data as well as providing production and socio-cultural information.

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- Limited scope census or sample-based pilot surveys;
- household surveys or surveys for fish consumption
- trade patterns;
- logbook systems.

Self-Check -3	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. _____ the main data collection methods are. (3 points)
A. Registration C. Interviews
B. Quaternaries D. All
2. Describer the first phase of data collection (5 points)

Note: Satisfactory rating – 8 points

Unsatisfactory - below 4 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-4	Using appropriate quality improvement techniques
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What techniques improve quality?

- Plan do study act. Introduce and test potential quality improvements. ...
- Lean/Six sigma. Eliminate waste and redirect resources for quality. ...
- Performance benchmarking. Drive quality improvement through performance. ...
- Effects analysis. ...
- Process mapping. ...
- Statistical process control. ...
- Root cause analysis. ...
- Communication tools.

Over the years, numerous tools, techniques, and systems have been designed to aid improvement. They are intended to give businesses a framework so that they don't have to create their own from scratch. This allows them to learn from the best practices of others and leverage what's been proven to work. However, knowing the difference between processes and terminology can be confusing. With so many options to choose from, how do you know which one is right for your specific business needs? Here's an overview of the six most popular and effective continuous improvement tools available

The PDCA cycle (short for plan, do, check, act) provides you with a systematic approach to testing different ideas and hypotheses. It can help you to implement continuous improvement throughout your organization using a structured framework. If you want to improve business processes, efficiency, or productivity, then the PDCA cycle can help.

The framework gives front line teams a four-step guide for executing incremental improvement practices. It enables them to avoid making the same mistakes repeatedly and is commonly used in lean manufacturing. PDCA stands for:

Plan – define your strategic goals and how you'll achieve them.

Do – implement the plan and make any changes required to ensure it works.

Check – evaluate the results and identify opportunities for improvement.

Act – make adjustments based on what's found in the previous step.

Some companies follow a slightly modified PDSA cycle, where the S stands for 'study' instead of check. It's very similar to PDCA but involves passively observing instead of proactively checking. The simple format means that PDCA is one of the most easily adopted continuous improvement tools. Everyone in a company can understand and follow the four steps as they're relatable in a wide variety of job roles, from human resources to R&D. It facilitates continuous process improvement and empowers employees to test ideas on a small scale. Over time, this creates a culture of creativity and innovation which is difficult for your competitors to replicate.

One of the key benefits of PDCA is that it's easy to understand and remember. The acronym can quickly become a mantra that is repeated and utilized by everyone in the business. Some companies display the process on posters around their buildings while others print it on to mouse mats and



coffee mugs. This gives employees a visual reminder and encourages them to adopt it as a consistent part of their work routine. The 4-step process doesn't require weeks of training to understand either – it can be summarized clearly in a matter of minutes. Managers can then follow-up with staff as they implement it and help them to learn on the go. This approach to coaching means there isn't a large barrier to implementation in terms of training. Companies can hit the ground running and then tweak it as they go along.

Self-Check -3	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. _____ what techniques improve quality. (3 points)
A. Effective analysis C. Process mapping
B. Statistical process control D. All
2. Describer appropriate quality improvement techniques (5 points)

Note: Satisfactory rating – 8 points

Unsatisfactory - below 4 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions

Answer Sheet

List of Reference Materials



1. Continues improvement tools and technics <https://reverscore.com/continuous->
2. Data collection method <http://www.fao.org/3/x2465e/x2465e09.htm>

BASIC HOME/OFFICE ELECTRICAL/ELECTRONICS EQUIPMENT SERVICING

Level II



Learning Guide-3

Unit of Competence: Apply Continuous Improvement Processes (Kaizen]

Module Title: Applying Continuous Improvement Processes (Kaizen]

LG Code: LSA CSW1 M01 LO2-LG-02

TTLM Code: LSA CSW2 M01 TTLM 0219v1

LO 3: Recommend corrective and/or optimization actions

Information Sheet-1	Analyzing causes to predict impacts of changes
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Predictive modeling is a process that uses data mining and probability to forecast outcomes. Each model is made up of a number of predictors, which are variables that are likely to influence future results. Once data has been collected for relevant predictors, a statistical model is formulated.



In statistical modeling, regression analysis is a set of statistical processes for estimating the relationships between a dependent variable (often called the 'outcome variable') and one or more independent variables (often called 'predictors', 'covariates', or 'features'). The most common form of regression analysis is linear regression, often using the method of ordinary least squares, which typically estimates the conditional expectation (i.e., the average value in the full population) of the dependent variable when the independent variables are fixed. Less common types of regression estimate different location parameters of the dependent variable given values of the independent variables, for example in quantile regression or Necessary Condition Analysis (NCA). Moreover, variants such as nonparametric regression allow the regression function to lie in a broader set of functions, which may be infinite-dimensional.

Regression analysis is primarily used for two conceptually distinct purposes. First, regression analysis is widely used for prediction and forecasting, where its use has substantial overlap with the field of machine learning. In this context, regression reveals relationships between the dependent variable and the collection of independent variables in a given model. Second, in some situations regression analysis can be used to infer causal relationships between the independent and dependent variables. As documented in ordinary least squares, this interpretation can be easily abused without rigorously stated assumptions and should be pursued with caution, especially in observational data

The general purpose of multiple regression (the term was first used by Pearson, 1908) is to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable. For example, a real estate agent might record for each listing the size of the house (in square feet), the number of bedrooms, the average income in the respective neighborhood according to census data, and a subjective rating of appeal of the house. Once this information has been compiled for various houses it would be interesting to see whether and how these measures relate to the price for which a house is sold. For example, you might learn that the number of bedrooms is a better predictor of the price for which a house sells in a particular neighborhood than how "pretty" the house is (subjective rating). You may also detect "outliers," that is, houses that should really sell for more, given their location and characteristics.

Personnel professionals customarily use multiple regression procedures to determine equitable compensation. You can determine a number of factors or dimensions such as "amount of responsibility" (Resp) or "number of people to supervise" (No_Super) that you believe to contribute to the value of a job. The personnel analyst then usually conducts a salary survey among comparable companies in the market, recording the salaries and respective characteristics (i.e., values on dimensions) for different positions. This information can be used in a multiple regression analysis to build a regression equation of the form.

Self-Check -1	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:



1. _____ is a process that uses data mining and probability to forecast outcomes.
(3 points)
- A. Predictive modeling C. Process mapping
B. Regression analysis D. a statistical model
2. Describe analyzing causes of predict impacts (5 points)

Note: Satisfactory rating – 8 points

Unsatisfactory - below 4 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Answer Sheet

Information Sheet-2	Identifying required changes to standards and procedures
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Standardization is defined as an activity that gives rise to solutions for repetitive application to problems in various disciplines. Generally, the activity constitutes the process of establishing (determining, formulating,



and issuing) and implementing standards. Thus, standards are the perfect result of a standardization activity and inside the context of quality systems consist of quality documents or documents related to the quality system. High levels of quality are important to accomplish Company business objectives. Quality, a source of competitive benefit, should stay a symbol of Company products and services. High quality is not an additional value; it is an important elementary necessity. Each employee in all organizational units is responsible for guaranteeing that their work processes are effective and continually getting better. Top management should provide the training and an appropriate motivating environment to support teamwork both inside and across organizational units for employees to advance processes. Ultimately, everyone in an institution is responsible for the quality of its products and services. An institution in the role of a sponsor of clinical trials can best achieve its business objectives by establishing and managing robust quality systems with their integral quality documents including standard operating procedures .The Quality Management system must evolve by trial and error, with enlarging experience, by group discussions and with changing understanding. In the beginning, attention will be focused on basic operational SOPs, afterwards moving to record keeping (as more and more SOPs are issued) and filling gaps as practice admits missing links in the chain of Quality Assurance. Essentially problems will turn up. One way to react to them is to talk with people in other laboratories who have faced similar problems. It should not be forgotten that Quality Management is a tool rather than a goal. The goal is quality performance of the laboratory. The philosopher Kant saw autonomy as self-government origin from morality, with morality proceeding from knowledge and self-discipline. Conger & Kanungo noted that an appropriate level of authority, discretion, formalization, and rule structure is a requirement for worker empowerment, which we see as consistent with the concept of self-government. Merriam-Webster defined autonomy as ‘the quality or state of being self-governing; especially: the right of self-government; self-directing freedom and especially moral independence’. Necessitated SOP use will be absolutely related to the sense of self-determination experienced by workers. Worker participation in SOP advancement and clarification controls the affiliation between required SOP use and the sense of self-determination experienced by workers.

Standard Operating Procedures (SOP) is a process document that describes in detail the way that an operator should perform a given operation. SOPs involve the purpose of the operation, the equipment and materials required, how to perform the set-up and operations required for the process, how to perform the maintenance and shutdown operations carried out by the worker, a description of safety issues, troubleshooting, a list of spare parts and where to find them, illustrations, and checklists. The SOP is one of many process documents which is needed for consistent operation of a given process, with other documents involving process flow charts, material specifications, and so forth.

Self-Check -2	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:



1. _____ is defined as an activity that gives rise to solutions for repetitive application to problems in various disciplines. (3 points)

A. Predictive modeling C. Standardization

B. Requirement Analysis D. Problem identification

Note: Satisfactory rating – 4 points

Unsatisfactory – below 2 points

You can ask your teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Answer Sheet

Information Sheet-2	Reporting recommendations to designated personnel
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Examples of Designated Personnel in a sentence

Contractor may submit a Designated Personnel change by submission electronically via e-mail of a revised Appendix D – Contractor and Reseller Information to the OGS Contract Administrator.

Contractor must notify OGS within five (5) business days if any of the Designated Personnel changes, and provide an interim contact person until the position is filled.

DESIGNATED PERSONNEL The Contractor will provide the Designated Personnel listed below for the duration of the Contract at no charge to the State.

Chair and Vice Chair Approvals (a) Appointment of Key Laboratory Personnel and Other Designated Personnel.

WG and BWXT shall nominate the individuals designated as Key Personnel in those positions that are within WG's and BWXT's primary areas of expertise and focus described in Section .Removal of Key Laboratory Personnel or Other Designated Personnel.

TEach department determines the work schedule and hours for employees as necessary for its operation. Full time employees work at least 30 hours per week. However, work schedules may vary among departments



including differing full time, part-time, prn (per diem), required overtime, flexible and seasonal schedules to accommodate the operational needs of the department. (See Alternative Work Arrangements Policy). Employees are expected to work their regular schedule based on standard hours or the full time equivalent (FTE) for each work week or supplement non-worked time up to their FTE or standard hours with the use of flex PTO. Hourly employees must accurately record all worked time using the record keeping system (i.e. Kronos or timesheets) in place for the employee's department. The time record must accurately reflect any unpaid breaks (i.e. meal or breaks for breastfeeding mothers) taken during the workday. Adjustments to the assigned schedule 2 cannot be made without prior approval of the supervisor.

List of Reference Materials

1. Designated Personnel <https://www.lawinsider.com/dictionary/designated-personnel>
2. Strategy Planning : <https://www.excitant.co.uk/strategy-document-different-strategic-plan/>

BASIC HOME/OFFICE ELECTRICAL/ELECTRONICS EQUIPMENT SERVICING Level II



Learning Guide-4

Unit of Competence: Apply Continuous Improvement Processes (Kaizen]

Module Title: Applying Continuous Improvement Processes (Kaizen]

LG Code: LSA CSW1 M01 LO2-LG-02

TTLM Code: LSA CSW2 M01 TTLM 0219v1

LO 4: Participate in the implementation of recommended action

Information Sheet-1	Implementing approved actions and monitoring performance
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Creating an Effective Action Plan

1. Choose an appropriate goal and clearly define your objective. ...
2. Use a team to create your action plan. ...
3. Choose action steps that are concrete, measurable and attainable. ...



4. Identify who is responsible for each action step and who will be supporting them.

STEPS IN STRATEGY IMPLEMENTATION

- Step #1: Evaluation and communication of the Strategic Plan.
- Step #2: Development of an implementation structure.
- Step #3: Development of implementation-support policies and programs.
- Step #4: Budgeting and allocation of resources.
- Step #5: Discharge of functions and activities.

An effective monitoring process provides ongoing, systematic information that strengthens project implementation. ... An effective monitoring and evaluation programme requires collecting and analyzing important data on a periodic basis throughout the management cycle of a project.

The final step in the decision-making process is to implement the decision. To implement your decision you must act on it, keep yourself on track, and determine how well you've done. These stages we call Action, Affirmation and Assessment

Implementation is the culmination of all your work in solving a problem and requires careful attention to detail. Planning and preparing to **implement** the **solution**. **Implementing** and monitoring the action. Reviewing and analyzing the success of the action.

Decision implementation includes conveying the **decision** to those affected and getting their commitment to it. Groups or committees can help a manager achieve commitment. The people who must carry out a **decision** are most likely to enthusiastically endorse the outcome if they participate in the **decision** making process.

How do you implement a problem solving solution?

Define the problem. Diagnose the situation so that your focus is on the problem, not just its symptoms.

Generate alternative solutions. Postpone the selection of one solution until several problem-solving alternatives have been proposed. ... Evaluate and select an alternative. ... Implement and follow up on the solution.

Measuring and managing employee **performance** is **important** because it gives you the ability to properly gauge worker efficiency, identify who is working hard and who isn't, determine how to properly compensate your workforce, and improve your workplace's overall productivity. **Performance monitoring** is a process wherein the supervisor ensures that the employee is progressing towards the goals and objectives established during goal setting

Self-Check -1	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. _____ is the culmination of all your work in solving a problem and requires careful attention to detail. (3 points)

A. Planning C. Implementation



B. Reviewing analysisD. Evaluation

Note: Satisfactory rating – 4 points

Unsatisfactory – below 2 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Answer Sheet

Information Sheet-2	Implementing changes to systems and procedures to eliminate possible cause
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People resist **change** because they believe they will lose something of value, or fear they will not be able to adapt to the new ways. When **organizational change** goes wrong it's often because it's being treated purely as an **implementation** of a new process.

Overcoming barriers to change in an organization can be difficult. There are some basic strategies that can help improve the acceptance of major changes within a company - communication, employee involvement, good leadership, negotiation, manipulation/coercion and correct timing can all be used.

Improvement through Change

The implementation of a plan brings about change meant to help improve the company or solve a problem. The changes can occur to policies, management structures, organizational development, budgets, processes, products or services.

What is Effective Organizational Change Management?

1. Clearly define the change and align it to business goals. ...
2. Determine impacts and those affected. ...
3. Develop a communication strategy. ...
4. Provide effective training. ...
5. Implement a support structure. ...
6. Measure the change process.



Below you will find 8 essential steps to ensure your change initiative is successful.

1. Identify What Will Be Improved. ...
2. Present a Solid Business Case to Stakeholders. ...
3. 3 .Plan for the Change. ...
4. Provide Resources and Use Data for Evaluation. ...
5. Communication. ...
6. Monitor and Manage Resistance, Dependencies, and Budgeting Risks.

Here are some steps you can take to successfully manage change in your organization.

1. Follow a process. ...
2. Start with the executives. ...
3. Consider the needs and perceptions of all stakeholders in the change process. ...
4. Pay attention to the individual change process. ...
5. Focus on managers. ...
6. Effectively handle resistance.

Self-Check -2	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. People resist **change** because they believe they will lose something of value, or fear they will not be able to adapt to the new ways. Why? Describe (3 points)

Note: Satisfactory rating – 4 points

Unsatisfactory – below 2 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Answer Sheet

Information Sheet-3	Documenting outcomes of actions and communicate to relevant personnel
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The Four Steps to Identifying and Documenting Your Action Plan

Remind yourself of the relevant definitions (resources, actions and outputs) and check the infographic if you need help.

Use your summary of outcomes with attributes and assumptions (See Plan - Step 2) as a checklist to ensure that you consider all the factors involved in the achievement of each outcome.

Identify activities to achieve immediate outcomes. In most cases, your immediate outcomes will lead to the achievement of intermediate outcomes and intermediate outcomes will eventually lead to impact. For each activity (or cluster of activities) identify the outputs that you will be producing and the resources that you will need for completion.

Document this in the program representation model that works for you. See Important Things to Know in Representing Your Action Plan for more information.

Remember to have a look at some of the resources provided in the toolbox to assist you with the representation of your action plan. We also provide a template for a log frame table.

Document Findings, Actions and Outcomes the last step in the troubleshooting process is documentation. However, this should be a task performed throughout the entire process. You'll learn why it's both unprofessional and unsafe to assume you will remember everything you need at the conclusion of this or any other troubleshooting process and how the development of a discipline pattern of notation and note taking will make a world of difference to your ability to perform task accurately and more thoroughly.

Example of ways to communicate change for a better employee experience

1. Be clear and honest about what's changing and why. ...
2. Consider the emotional impact of the change. ...
3. Tell employees what's in it for them. ...
4. Explain how the change will happen. ...
5. Tell employees what they need to do. ...
6. Consider the source — and the channels. ...
7. Target whenever you can. ...
8. Open two-way communication channels.

Workplace communication is very important to companies because it allows companies to be productive and operate effectively. Employees can experience an increase in morale, productivity and commitment if they are able to communicate up and down the communication chain in an organization.

Effective communication helps your organization run smoothly, and it can also improve your bottom line. Customers return for your business' professionalism, while employees work with greater efficiency.

Self-Check -3	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:



1. _____ helps your organization run smoothly, and it can also improve your bottom line. (3 points)

- A. Strategic management C. Communication strategy
B. Effective Communication D. Service

Note: Satisfactory rating – 4 points

Unsatisfactory – below 2 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Answer Sheet

List of Reference Materials

1. Continues improvement tools and technics <https://reverscore.com/continuous->
2. Document Outcomes <https://en.wikipedia.org/wiki/Consultant>



BASIC HOME/OFFICE ELECTRICAL/ELECTRONICS EQUIPMENT SERVICING

Level II

Learning Guide-5

Unit of Competence: Apply Continuous Improvement Processes (Kaizen]

Module Title: Applying Continuous Improvement Processes (Kaizen]

LG Code: LSA CSW1 M01 LO2-LG-02

TTLM Code: LSA CSW2 M01 TTLM 0219v1

LO 5: Participate in the development of continuous improvement strategies

Information Sheet-1	Reviewing all relevant features of work practice
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As a Team Leader you perform and oversee or guide a number of tasks every day. Each task has its own end to end process.

When learning a new task or training someone to perform a task, you should focus on understanding the process followed to complete the task successfully.

Processes ensure that:

- Roles are clearly defined so that everyone impacted by the task is aware of their responsibilities



- Every component of the task is completed to an agreed standard
- Business rules are adhered to
- Industry codes and legislation are observed

Generally, an established process has been recognised as the most efficient and productive way of undertaking a task. However, this does not mean that you shouldn't think of ways to improve a process.

With the constant development of technology, introduction of new business concepts and techniques, and changing customer and supplier demands, processes need to be refined to ensure your company or organisation maintains its cost efficiency and productivity.

When re-engineering a process you need to consider:

- Who is to be involved in the process improvement?
- How the process can be improved?

Your first step is to determine the key players or stakeholders in the process. Stakeholders can include:

- End users
- Customers
- Suppliers
- Other Departments
- Management
- Once you have a good understanding of who is involved, you need to establish how the process currently works, what works well, what needs improvement and how this can be achieved.
- You may wish to hold formal meetings to discuss the process, or develop a questionnaire to collect the necessary feedback and information.
- To assist in your development of an improved process you should research industry best practices and benchmarks for similar processes. You might also want to consult with contacts in your networks and professional associations to discuss techniques utilised in similar environments.
- Test the new or refined process with a group of end users to determine how well it works. Evaluate the process using the end user's feedback before approving the process.
- At all times, communicate the progress of the process improvement to the stakeholders. This will ensure that the process has approval from the relevant parties prior to implementation.

A **best practice** is a method or technique that has been generally accepted as superior to any alternatives because it produces results that are superior to those achieved by other means or because it has become a standard way of doing things, e.g., a standard way of complying with legal or ethical requirements.

Self-Check -1	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. _____ Describe on reviewing work practice (4 points)



Note: Satisfactory rating – 4 points

Unsatisfactory – below 2 points

You can ask your teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-2	Identifying options for removing or controlling the risk
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Controlling the risks

Things you need to do

As part of managing the health and safety of your business, you must control the risks in your workplace. To do this you need to think about what might cause harm to people and decide whether you are taking reasonable steps to prevent that harm.

This process is known as risk assessment and it is something you are required by law to carry out. If you have fewer than five employees you don't have to write anything down.

A risk assessment is not about creating huge amounts of paperwork but rather about identifying sensible measures to control the risks in your workplace.

You are probably already taking steps to protect your employees, but your risk assessment will help you decide whether you have covered all you need to.

Identify the hazards

One of the most important aspects of your risk assessment is accurately identifying the potential hazards in your workplace.

A good starting point is to walk around your workplace and think about any hazards (things that may cause harm). In other words, what is it about the activities, processes or substances used that could injure your employees or harm their health?

When you work in a place every day it is easy to overlook some hazards, so here are some tips to help you identify the ones that matter:



Check manufacturers' instructions or data sheets for chemicals and equipment as they can be very helpful in explaining the hazards and putting them in their true perspective

Look back at your accident and ill-health records – these often help to identify the less obvious hazards

Take account of non-routine operations (eg maintenance, cleaning operations or changes in production cycles)

Remember to think about long-term hazards to health (eg high levels of noise or exposure to harmful substances)

There are some hazards with a recognised risk of harm, for example working at height, working with chemicals, machinery, and asbestos. Depending on the type of work you do, there may be other hazards that are relevant to your business.

Who might be harmed?

Then think how employees (or others who may be present such as contractors or visitors) might be harmed. Ask your employees what they think the hazards are, as they may notice things that are not obvious to you and may have some good ideas on how to control the risks.

For each hazard you need to be clear about who might be harmed – it will help you identify the best way of controlling the risk. That doesn't mean listing everyone by name, but rather identifying groups of people (eg 'people working in the storeroom' or 'passers-by'). Remember:

Self-Check -2	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:
1.A risk assessment is not about creating huge amounts of paperwork but rather about identifying sensible measures to control the risks in your workplace. How? And give examples.

(4 points)

Note: Satisfactory rating – 4 points

Unsatisfactory – below 2 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____



Name: _____

Date: _____

Short Answer Questions

Information Sheet-3	Assessing the adequacy of current controls, quality methods and systems
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In an “effective” internal control system, the following five components work to support the achievement of an entity's mission, strategies and related business objectives.

- Control Environment. Integrity and Ethical Values. ...
- Risk Assessment. Company-wide Objectives. ...
- Control Activities. ...
- Information and Communication. ...
- Monitoring.

Control effectiveness (CE) represents the total **effectiveness** of all the **controls** that act upon a particular risk. CE reflects not just the ability of **controls** to theoretically treat a risk, but also their actual **effectiveness** in terms of consistent, complete, reliable and timely operation.

Measuring control effectiveness is difficult for many organisations (if not most). What worries me is how often I come across the ‘guess work’ that goes into measuring control effectiveness when what’s actually needed is evidence to prove the controls in place are right for the resources, budget and risk.

What I find fascinating is that the majority of risk management databases on the market that I have reviewed provide a free text field to list the controls and, usually, a free text field to provide an assessment of effectiveness. So, for instance, there may be six or more controls listed by a company but no meaningful way of assessing the effectiveness of each of those controls individually, preferring instead to provide one effectiveness rating that covers all of the controls. Given that the assessment of likelihood and consequence are going to be made giving due regard to the effectiveness of the controls, this blanket approach to assessing effectiveness may lead to flawed assessments of the risk level.

In order to answer the question as to how we measure control effectiveness, it is worthwhile to go back to the start and define what a control is.

Essentially, a control is something that is **currently** in place to reduce risk within an organisation and/or an industry. They have often been brought in as a result of a previous situation or incident. Note, in many cases these situations or incidents arise, not because of a lack of controls, but because of a **failure** of **existing** controls. **So the real key to managing risk effectively is to ensure that our controls are effective.**



There are three key categories for controls:

- Preventative – controls that aim to **reduce the likelihood of a situation occurring**, for example, policies and procedures, approvals, authorisations, police checks and training;
- Detective – controls that aim to **identify failures** in the current control environment, for example, reviews of performance, reconciliations, audits and investigations; and
- Corrective – controls that aim to reduce the consequence and/or **rectify a failure** after it has been discovered, for example, crisis management plans, business continuity plans, insurance and disaster recovery plans.

• Self-Check -3	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What are the categories of effective control management? (4 points)

- A. Preventive C. Corrective
B. Detective D. All

Note: Satisfactory rating – 4 points

Unsatisfactory – below 2 points

You can ask your teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-4	Identifying opportunities to continuously improve performance
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Continuous Improvement

Plan: Identify an opportunity and plan for change.

Do: Implement the change on a small scale.

Check: Use data to analyze the results of the change and determine whether it made a difference.

Act: If the change was successful, implement it on a wider scale and continuously assess your results.

How to Improve Work Performance:

Avoid distractions.



Stop multitasking.

Be accountable.

Read.

Set milestones.

Review personal benchmarks regularly.

Know your limits.

Batch tasks & meetings.

Identify opportunities for improvement

This stage of the Business Process Analysis consists of analysis of the As-Is processes and identification of problem areas and potential improvements. Factors such as the need to accommodate regulatory changes, trade security issues, and a drive to ensure information arrives in advance of the arrival of goods so as to reduce delays, can lead to necessary changes.

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, the use of digital data rather than paper document, organizational changes, new or changing regulatory requirements, and the introduction of new and modernized procedures, such as pre-arrival clearance.

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?

Reduce data requirements: Identify the minimum information needed to enable each process to be carried out. Can the amount of data be reduced from that currently demanded?

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 -4	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1.How does continuous improve performance ensured? Describe (4 points)



Note: Satisfactory rating – 4 points

Unsatisfactory – below 2 points

You can ask your teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-5	Developing recommendations for continual improvements
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The continuous improvement process revolves around teamwork activities. It emphasizes the fact that employees are a company's most valuable asset and that their ideas are valuable. Motivated employees take pride in their work, strive to do their best and have satisfaction in their accomplishments.

A continual improvement process, also often called a continuous improvement process (abbreviated as CIP or CI), is an ongoing effort to improve products, services, or processes. These efforts can seek "incremental" improvement over time or "breakthrough" improvement all at once. Delivery (customer valued) processes are constantly evaluated and improved in the light of their efficiency, effectiveness and flexibility.

Some see CIPs as a meta-process for most management systems (such as business process management, quality management, project management, and program management). Deming, a pioneer of the field, saw it as part of the 'system' whereby feedback from the process and customer were evaluated against organizational goals. The fact that it can be called a management process does not mean that it needs to be executed by 'management'; but rather merely that it makes decisions about the implementation of the delivery process and the design of the delivery process itself.

A broader definition is that of the Institute of Quality Assurance who defined "continuous improvement as a gradual never-ending change which is: '... focused on increasing the effectiveness and/or efficiency of an organization to fulfil its policy and objectives. It is not limited to quality initiatives. Improvement in business strategy, business results, and customer, employee and supplier relationships can be subject to continual improvement. Put simply, it means 'getting better all the time'.

• Self-Check -5	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. How can we ensure continual improvements in performance? Describe (4 points)

Note: Satisfactory rating – 4 points

Unsatisfactory – below 2 points

You can ask your teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-6	Consulting with appropriate personnel
----------------------------	---------------------------------------

Consultation involves managers actively seeking and taking account of the views of **employees** before making a decision. A communication and **consultation** policy is a particularly effective way of setting out the attitude of the organization and defining the responsibilities of those involved.

So you want to hire an employee. Sometimes Consultants are often hired to supplement an organization's staff while saving the costs of hiring a full-time employee. Consultants are experts in their field and are paid to share their knowledge and expertise to help solve problems and reach goals

Effective Consultation. **Consultation** is a two-way process between you and your workers where you: talk to each other about health and safety matters. Listen to their concerns and raise your concerns. Seek and share views and information

A consultant is usually an expert or an experienced professional in a specific field and has a wide knowledge of the subject matter. The role of consultant outside the medical sphere (where the term is used specifically for a grade of doctor) can fall under one of two general categories:

Internal consultant: someone who operates within an organization but is available to be consulted on areas of their specialization by other departments or individuals (acting as clients); or

External consultant: someone who is employed externally to the client (either by a consulting firm or some other agency) whose expertise is provided on a temporary basis, usually for a fee. Consulting firms range in size from sole proprietorships consisting of a single consultant, small businesses consisting of a small number of consultants, to mid- to large consulting firms, which in some cases



are multinational corporations. This type of consultant generally engages with multiple and changing clients, which are typically companies, non-profit organizations, or governments.

By hiring a consultant, clients have access to deeper levels of expertise than would be financially feasible for them to retain in-house on a long-term basis. Moreover, clients can control their expenditures on consulting services by only purchasing as much services from the outside consultant as desired.

Consultants provide their advice to their clients in a variety of forms. Reports and presentations are often used. However, in some specialized fields, the consultant may develop customized software or other products for the client. Depending on the nature of the consulting services and the wishes of the client, the advice from the consultant may be made public, by placing the report or presentation online, or the advice may be kept confidential, and only given to the senior executives of the organization paying for the consulting services.

• Self-Check -6	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. _____ involves managers actively seeking and taking account of the views of **employees** before making a decision. (4 points)

- A. Strategic management
- B. Consultation
- C. Planning
- D. Service

Note: Satisfactory rating – 4 points

Unsatisfactory – below 2 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-7	Documenting outcomes of strategies
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You **should** review your **strategic** position regularly through the use of a SWOT. These elements are as follows: Mission statement: The mission describes your organization's purpose — the purpose for



which you were founded and why you exist. Some mission statements **include** the business of the organization.

The merits of strategic planning and what it is, or isn't, often becomes the topic of heated debate.

There is no right answer. There is only the right fit. As your executive team or board embarks upon the strategic planning process, you must critically decide on what your key outcomes for the process are and what success looks like in the next year.

The outcome from the strategic planning process goes beyond just building a plan. In fact, it's a series of outcomes that build upon each other to ultimately transform your organization to reach your desired future state.

What can be categorically said about the planning process is that it isn't simply about creating a plan. It's about addressing the needs of your organization, creating a plan, and aligning your organization around a process to reach your desired future state.

With that, here are the four foundational outcomes you can adapt to help your organization understand what the planning process should do to support your vision of success:

Outcome 1 – Build an Articulated Plan

The obvious place to start during the planning process is building a plan. It's the very foundation that articulates where your organization is going and why. During the plan's creation, be clear about what your desired outcomes are from the plan.

Outcome 2 – Focus on Strategic Differentiation

Build a plan that's focused on your strategic differentiation. A generic plan that matches your competition isn't going to do you a bit of good. Focus your plan on what you're best at, how you're going to play, and what you're going to do to win. You'll need to complete research from a competitive, market, and customer perspective to complete this outcome.

Outcome 3 – Align Your Organization

Aligning your organization begins by taking the big ideas in your strategic plan, the big priorities you're focusing on, and breaking them down through the organization. Everybody always strives for organizational alignment, but break it down and take it one step at a time. You might consider easing the organization into the process, implementing different aspects of your plan through the first year and then taking it a step further the next year. Sometimes diving in feet first can be an overwhelming change that leads to defeat instead of alignment.

Outcome 4 – Agility and Organizational Transformation

So you have a plan that's truly strategic and your organization is aligned around it. For planning to reach its ultimate outcome, you need to put a process around managing it so it doesn't just sit on the shelf. It answers the question, "Are we making progress and do we need to adapt the strategy?" Having a static plan is a big complaint people have about strategic planning, so make it dynamic by



putting a rhythm in place. We recommend a monthly or quarterly review process to talk about progress against plan, make adaptations, and feed it throughout the organization.

Each outcome from the planning process builds upon the previous. Having an articulated plan that focuses on your strategic differentiation, aligning your organization around your priorities, and driving the ongoing execution process will transform your organization.

• Self-Check -6	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. How to ensure and measure documenting outcomes of strategies? Describe , (3 points)

Note: Satisfactory rating – 4 points

Unsatisfactory – below 2 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

List of Reference Materials

1. Documenting outcome strategy
2. Preparing Strategic documents <https://hr.vanderbilt.edu/policies/hours-of-work.php>