



HEALTH EXTENSION SERVICE

NTQF Level -III

Learning Guide -8

Unit of Competence: -	Apply Computer and Mobile Health Technology
Module Title: -	Applying computer and Mobile Health Technology
LG Code:	HLT HES3 M02 LO3LG8
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LO3. Evaluate new or upgraded technology performance



Instruction Sheet-	Learning Guide #-3
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This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- Testing and evaluation of new/upgraded equipment's
- Mobiles/smart phones and tablets evaluation
- Environmental consideration from new/upgraded equipment's
- Feedback from performance evaluation

This guide will also assist you to attain the learning outcome stated in the cover page.

Specifically, upon completion of this Learning Guide, **you will be able to –**

1. Evaluate and determine new or upgraded technology performance by introduced technology (mobile/ Mhealth, tablets)
2. Evaluate mobiles/Smart phones and tablets for the performance, usability and against the OHS standards
3. Determine environmental considerations from new or upgraded equipment
4. use feedback from appropriate performance evaluation

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 6.
3. Read the information written in the information “Sheet 1, Sheet 2, Sheet 3 and Sheet 4,---” **in page ---, ---, --- and ---** respectively.
4. Accomplish the “Self-check 1, Self-check t 2, Self-check 3 and Self-check 4” ,---” **in page ---, ---, --- and ---** respectively
5. If you earned a satisfactory evaluation from the “Self-check” proceed to “Operation Sheet 1, Operation Sheet 2 and Operation Sheet 3 ” **in page ---.**
6. Do the “LAP test” **in page – ---**

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Information Sheet-1	Testing of new/upgraded equipment's
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1.1. introduction to diagnostic tools for new/upgraded equipment's

If you've never run a diagnostics test on your own smart phone, it's worth doing especially as your phone starts to show its age, or if you purchased a "new" smart phone secondhand and want to get a feel for its condition.

Diagnostic tools are also helpful for when your device becomes less efficient, but you can't quite pin down why. Instead of using guesswork to troubleshoot the various features on your phone until you stumble on a solution, a diagnostics scan can highlight exactly what's wrong with your phone, or at least provide enough data to point you in the right direction.

Unfortunately, finding the built-in diagnostics tools on Android smart phones and iPhones can be difficult, and some devices don't even have very good diagnostic options to begin with (if at all). But you can always turn to third-party apps for help.

1.1.1. Built-in diagnostics tools

1. Android



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Most Android phones have a few simple diagnostics tools hidden in the OS, but they vary between devices. The tools are found by typing codes into your phone app's dialer—kinda like inputting cheat codes in a video game. Type in the codes below, and the menus should automatically open.

The two main codes usable on most Android devices:

1. ***#0*# hidden diagnostics menu:** Some Android phones come with a full diagnostics menu. You'll be able to run a check-up for at least some of the phone's hardware. However, this code isn't available on all phones—nothing happened when I tried the code on a Pixel XL, for example, though the menu appeared on a Samsung Galaxy S9. For those that do have access, it's a handy trick. The menu offers a number of standalone tests to check the performance of your phone's various parts, such as your screen (touch recognition, color accuracy), your cameras, sensor, and physical buttons like the power and volume controls.
2. ***##4636##* usage information menu:** This menu will show up on more devices than the hidden diagnostics menu, but the information shared will be different between devices. At the very least, you should be able to see app usage history; real-time wifi and cellular network connection stats; and basic phone information like the current service carrier, phone number, et cetera.

You don't have to press the call button or anything else to open the hidden menus, they'll just open automatically. If nothing happens when you type in the code, then your phone doesn't have the feature. Similarly, some devices don't provide very helpful information, like the aforementioned Google Pixel (which relies on Google collecting diagnostic information from your phone in the background). If that's the case, then jump on down to the next section for some recommendations for third-party diagnostics apps.

2. iPhone

Apple is notorious for its products being “walled gardens,” which makes it hard for users to perform check-ups and DIY fixes for their devices. Unsurprisingly, you won't find any built-in diagnostics tests that you can run on an iPhone.

That said, the iPhone settings *do* include detailed readouts on battery performance and history. To find this data, go to **Settings > Battery**.

You'll find a number of different options and categories that contain your device's battery performance data—but nothing else beyond that, unfortunately.

1.1.2. Running diagnostics scans with third-party apps

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With limited options available in iOS, the only real option for running diagnostics on your iPhone or iPad is to use a third-party app. These apps are also helpful for Android phones that don't have built-in diagnostics tools—or if you want a more detailed (and less cumbersome) way to test your phone's hardware.

1. TestM (Android and iOS)

This app lets you run both quick appraisals and full hardware diagnostics on iPhone and Android devices. The full scan performs simple actions that test each of your phone's major hardware functions, including the cameras; battery and charging; onboard sensors; and the performance of location, Bluetooth, and cellular connections.

Each test is simple, and the results are easy to read. If the scan detects something wrong, the app can give you recommendations for nearby repair shops. The only major downside to TestM is that it plays ads between each test, which is annoying. A premium, ad-free version can be unlocked for \$18, but that's a steep price.

2. Phone Check and Test (Android)

Phone Check and Test is a plain-looking app, but it's capable of much more than just checking that your phone's hardware "works." A full scan includes deep CPU, storage, and battery diagnostics, and the test readouts are highly detailed. This makes Phone Check and Test a little less user-friendly than TestM, but it's an excellent troubleshooting tool that provides you with tons of data.

While the free version does contain ads, they're minimal, and you can upgrade to Plus for just \$2 to remove them. The Plus version also adds a few more testing tools and lets you run standalone tests for each piece of hardware separately, which saves you time over a full system scan.

3. Phone Diagnostics (iOS)

Like the TestM app for Android phone, Phone Diagnostics can be an ad-ridden mess at times, but hidden behind all that is a reliable set of hardware function tests. The full test takes you through all the major hardware features based on the iPhone model you're using.

Unlike the other apps we've listed, Phone Diagnostics allows users to perform immediate standalone tests of any hardware function your iPhone carries without requiring a paid upgrade.

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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. A diagnostics scan can highlight exactly what's wrong with your phone
2. *#0*# hidden diagnostics menu works only for android smart phones and **tablets**
3. *##4636##* code is called as usage information menu
4. You don't have to press the call button or anything else to open the hidden menus on android smart phones and **tablets**
5. If nothing happens when you type in the code, then your phone or Tablet doesn't have the feature



Note: Satisfactory rating - 5 points

Unsatisfactory - below 4 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

MCH question Questions

Name: _____

Date: _____

1. _____
2. _____
3. _____
4. _____
5. _____



Information Sheet-2	Mobiles/smart phones and tablets evaluation
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2.1. Technology evaluation

Technology evaluation is a set of principles, methods and techniques/tools for effectively assessing the potential value of a technology and its contribution to a company, a region or an industrial sector. It is one of the most significant methodologies in innovation and technology transfer, utilized in screening new ideas, assessing innovative or not innovative products and technologies. It is a powerful technique for an organization in examining new ideas, identifying and analyze causes or potential change, develop and plan possible solutions, and finally select and implement a proposed technology.

2.2. Technology evaluation may be understood in a variety of ways:

- As a group of studies, which systematically examine the effects on society that may occur when a technology is introduced, extended or modified. It emphasizes those consequences that are unintended, indirect or delayed.
- As an attempt to establish an early warning system to detect, control, and direct technological changes and developments so as to maximize the public good while minimizing the public risks.
- As a process of analysing alternative technologies that provides information and help the actors involved in developing their goals. A thorough evaluation assesses the technology and its device's value from technical, market and consumer perspectives and reconciles the results within a valid methodology.

2.3. **Mobiles/smart phones and tablets evaluation**

Smart phones, tablets and other similar mobile devices are being used increasingly both privately and in organisations. Another emerging trend is that users are given access to work-related information via their mobile devices. The increasing use of smart phones and tablets, in combination with the fact that both private and work-related spheres becoming ever more indistinguishable, means that operational information and information assets are being exposed in a new way through these mobile device



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. Technology evaluation is a set of principles, methods and techniques/tools for effectively assessing the potential value of a technology and its contribution to a company, a region or an industrial sector.
2. The increasing use of smart phones and tablets, in combination with the fact that both private and work-related spheres becoming ever more indistinguishable, means that operational information and information assets are being exposed in a new way through these mobile device
3. A thorough evaluation assesses the technology and its device's value from technical, market and consumer perspectives and reconciles the results within a valid methodology is an example of technology evaluation
4. Technology evaluation is one of the most significant methodologies in innovation and technology transfer



Note: Satisfactory rating - 3 points

Unsatisfactory - below 3 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

1. _____
2. _____
3. _____
4. _____



Information Sheet-3	Environmental consideration from new/upgraded equipment's
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4.1. Introduction to environmental consideration from new/upgraded equipment's

Today, Computer is the basic need of every human. A computer made our life easier and saves a lot of time and human efforts, Use of computer plays a big role in environment pollution and Degradation but no one is aware about the harmful impacts of the use of computer on environment.

.Today there is a great need to implement the concept of Green computing and guide the common people to save our environment. Most of the CO₂ emission is produced through the heat generated by computer and its devices. The energy consumption by various computing devices also plays a main role towards harmful environment. The Toxicity and Pollution are caused due to Computers materials. To solve these Problems "GREEN COMPUTING" comes into existence. With the help of green computing we can save lot of energy and protect our environment from the harmful impacts of computers and its devices.

Green computing or Green IT refers to environmentally sustainable computing . It is also the environmentally responsible use of computers and related resources. One of the main objectives of Green Computing is about improving computing performance and reducing the energy consumption & carbon footprints. This term generally relates to the use of computing resources in conjunction with minimizing environmental impact, maximizing economic viability, ensuring social duties, reducing the use of hazardous materials like CFCs, promoting the use of recyclable materials, minimizing use of non-biodegradable components, and encouraging use of sustainable resources.

1.2. Components of Green computing

Green Design – Designing energy efficient and environmentally sound components, computers, servers, cooling Equipment, and data centers.

Green Manufacturing – manufacturing electronic components, computers, and other associated subsystems with minimal impact on the Environment.

Green use – reducing the energy consumption of computers and other information systems as well as using them in an environmentally sound manner.

Green Disposal – Refurbishing and reusing old computers and properly recycling unwanted computers and other electronic equipment. .

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**Self-Check -3****Written Test**

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

1. Use of computer plays a big role in environment pollution and Degradation
2. With the help of green computing we can save lot of energy and protect our environment from the harmful impacts of computers and its devices.
3. One of the main objectives of Green Computing is about improving computing performance and reducing the energy consumption & carbon footprints.
4. Green disposal is a components of Green computing



Note: Satisfactory rating - 3 points

Unsatisfactory - below 3 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

1. _____

2. _____

3. _____

4. _____



Information Sheet-4	Feedback from performance evaluation
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4.1. Introduction to performance evaluation

In the context of an industrial organization, performance evaluation is a systematic evaluation of personnel by supervisors or those familiar with their performance. In other words, performance appraisal is a systematic and objective way of judging the relative worth or ability of an employee in performing his/her task.

4.2. Smart Phones and tablets Skills Expectations

Always answers telephone calls with a positive, inviting, and enthusiastic tone. Talks in a steady speed rate, not so fast and not so slow. Speaks in a very clear enunciation and is well understood by the other person on the other end. Has a clear knowledge of the audience and does not use complex vocabularies and jargons. Greets the other person on the line with great sincerity and does not sound authentic and artificial. Gives the other person on the line time to ask before responding accordingly. Exhibits excellent listening skills and attentiveness while on the call. Always seeks clarification whenever the other person on the line is not clear. Ends telephone conversations professionally and ensures that the other person on the line is satisfied. Empathizes with other person and try to be as personable as possible.

4.3. Smart Phone and Tablet Skills Evaluation feedback point

- How well can you rate the way you handle your phone call conversations?
- How do you handle irate and upset callers during a phone conversation?
- Give an instance you were called by an irate caller and explain how you handled it?
- Have you ever interrupted someone while talking over the phone? How did the conversation turn out?
- Have you ever made a call while drinking or eating? How can you rate the conversation?
- Give an instance you had to talk to someone on the phone while in a loud place? How well did the conversation go?
- Do you typically take charge of the phone calls you make and how do you ensure to have everything under control?
- What is the best solution you have ever given to someone over the phone and was the caller satisfied?
- Do you usually call back when you promise to do so and have you ever failed to so at any given point?

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- How well do you close conversations and do you feel you leave the callers in a satisfied position?

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

1. In the context of an industrial organization, performance evaluation is a systematic evaluation of personnel by supervisors or those familiar with their performance
2. One phone skill expectation is you have to always answers telephone calls with a positive, inviting, and enthusiastic tone
3. When you give feedback on phone empathizing with other person and trying to be as personable as possible is not included under your skill evaluation.



Note: Satisfactory rating - 3 points

Unsatisfactory - below 3 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

1. _____

2. _____

3. _____



Reference

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