SEES, Amravati

Dr. Panjabrao Deshmukh Nursing Institute, Amravati

ICT Tools (Information and Communication Technology)

Standard Operating Procedure (SOP)

A Standard Operating Procedure (SOP) for ICT tools outlines the steps for using and maintaining specific technologies, ensuring consistency, efficiency, and compliance within an organization.

Definition of tools:

ICT Tools: ICT tools encompass the diverse technological resources and devices used for transmitting, storing, creating, sharing, and exchanging information, including computers, the internet, and various communication technologies.

Computer: A computer is a device that accepts information (in the form of digitalized data) and manipulates it for some result based on a program, software, or sequence of instructions on how the data is to be processed.

Printer: A printer is a device that accepts text and graphic output from a computer and transfers the information to paper.

Scanner: A scanner is a device that digitizes physical documents, images, or objects, converting them into a digital format for viewing, editing, and storage on a computer.

Xerox machine: Xerox machine refers to a photocopier or copy machine, specifically one that uses the xerography process to make copies of documents and other visual images.

Smart Board: A smart board, also known as an interactive whiteboard, is a large, touch-sensitive display that enables interactive presentations and collaboration, often used in classrooms and boardrooms, allowing users to write, draw, and manipulate digital content directly on the screen.

LCD Projector: An LCD projector is a type of video projector that uses liquid crystal display (LCD) panels to project images and video onto a screen by controlling the flow of light

through these panels.

LED Projector: An LED projector is a type of projector that uses light-emitting diodes (LEDs) as its light source to project images, offering advantages like longer lifespan, lower power consumption, and instant on/off capabilities.

Mic : A mike is a device that is used to make sounds louder or to record them. Mike is an abbreviation for 'microphone'.

Wi-Fi: Wi-Fi is a wireless networking technology that uses radio waves to provide wireless high-speed Internet access.

Collar Mic: A collar mic is a small, lightweight microphone, also known as a lavaliere mic, lapel mic, or body mic, designed to be clipped onto clothing or worn discreetly on a person's body for hands-free audio capture.

Sound System: A sound system is a set of equipment for playing recorded music or voice, or for making a band's music able to be heard by everyone at a concert.

Key Elements of an ICT Tools SOP:

➢ **Access and Usage:**

- **User Roles and Permissions:** Clearly define who has access to which tools and what permissions they have.

- **Login Procedures:** Outline the correct steps for logging into and out of systems.

- **Software Installation and Updates:** Specify how to install, update, and uninstall software.

- **Hardware Usage:** Detail how to use and maintain hardware, including computers, printers, and network devices.

➢ **Troubleshooting and Maintenance:**

- **Common Issues:** Identify and document solutions for common technical problems.

- **Software and Hardware Maintenance:** Outline procedures for regular maintenance and troubleshooting.

- **Backup and Recovery:** Establish procedures for backing up data and restoring systems in case of failure.

➢ **Security:**

- **Password Management:** Define strong password policies and procedures.

- **Data Protection:** Outline procedures for protecting sensitive data.

- **Malware Prevention:** Specify how to prevent and respond to malware infections.

➢ **Data Management:**

- **File Storage and Organization:** Define how to store, organize, and access files.

- **Data Backup and Recovery:** Outline procedures for backing up data and restoring systems in case of failure.

➢ **Training and Communication:**

- **User Training:** Provide training on the use of ICT tools.

- **Communication Channels:** Establish clear communication channels for reporting issues and seeking assistance.

➢ **Compliance:**

- **Industry Regulations:** Ensure compliance with relevant industry regulations and

standards.

- **Company Policies:** Adhere to company policies and procedures.

Benefits of Using SOPs for ICT Tools:

- **Consistency:** Ensures that all users follow the same procedures, leading to better outcomes.

- **Efficiency:** Streamlines processes and reduces errors.

- **Compliance:** Helps organizations meet industry regulations and standards.

- **Reduced Downtime:** Enables faster troubleshooting and recovery from technical issues.

- **Improved Training:** Provides a clear and concise guide for users to learn how to use ICT tools.

Purpose:

To establish clear and consistent procedures for using ICT tools, promoting efficiency, consistency, and compliance.

Scope:

Defines which ICT tools the SOP applies to (e.g., specific software, hardware, or network devices).

MAINTENANCE OF COMPUTER, SMARTBOARDS, PROJECTORS & OTHER ICT TOOLS

The maintenance cell functioning in the Institute would take care of the maintenance of computers, smart boards, projectors, Wi-Fi installation and up-gradation. The technician/system administrator would attend the defects and malfunctions of both software and hardware of Computer, whenever they have been reported by the concerned department. The reporting should be made in the prescribed format highlighting the nature of defects or malfunctions. The cell would maintain records of servicing, accordingly. This Standard Operating Procedure (SOP) provides guidelines and procedures to be adopted for maintenance of computers and allied resources, in order to ensure its effective utilization.

OBJECTIVES

The objectives of the Computer Maintenance Cell are:

- Maintenance of the servers, computer systems, internet connectivity, back up of data, Multimedia Projectors, printers, Wi-Fi, LAN, renewal of licenses and services.

  - To ensure optimal utilization of computing facilities and allied resources. `

  - To upgrade the systems if and when required.

GUIDELINES FOR SETTING UP NEW ICT TOOLS AND INSTALLATION

- The specifications and the requirements relating to Computer hardware and software would be given by the respective HODs. A proposal highlighting the above would be submitted to the Management, through the principal. The procurement of the requirements mentioned in the proposal, would be initiated after securing budget approval from the Management.

- After Budget approval, the institute would arrange for inviting quotations and prepare comparative costs / pricing statements with the information received from various (Vendors) enterprises. The quality of the brand/product, service support, costs and pricing would be reviewed for placing Purchase orders.

- The system administrator and Principal would involve in the process of technical specifications and price negotiations.

- The finalized report after appropriate review and negotiations would be submitted to Chairman. The Chairman and Principal would finalise the vendors after personal discussion with them. The orders would be placed only to the approved vendors by the management. In the order, terms and conditions should be clearly mentioned in the purchase order.

- During the delivery of Computers / Hardware / Software / equipment the following procedures need to be followed. First Gate entry should be made in the invoice, Second, it should be entered in the main store stock register, Third, store keeper must transfer the items to the concerned department. In the department, the conditions of the deliver equipments should be checked by the concerned lab in-charge / instructor / faculty in- charge and HOD. Then, the bills would be verified and the details relating to Computers / Hardware / Software / equipment delivered, must be entered in the Lab / Department stock register.

- After verification of bills (Invoice) and the equipment the Department would forward to stores and accounts section. Before forwarding, the department would ascertain the pending issues, if any, with the equipments already supplied by the company. After confirming that there is no pending issues the company the department would authenticate the payment of the bill.

- The account section may pass the bills to the Management for payment approval, after checking the bills with purchase order and also verifies the advance amount paid, if any.

- The payment information must be communicated to the HODs by the account section or the HODs must enquire about the status of the bill payment in the office for their information and records.

- For the purchase of consumables such as printer cartridge, stationeries, if required, the lab in-charges and HODs must submit the price list along with the list of items to be purchased for approval. The price list or quotation should be obtained from

minimum of two or three shops / suppliers.

- Before the installation of computers and commissioning of the computer laboratory, the necessary arrangement for networking would be carried out by an outsourced agency.

GUIDELINES FOR SERVICING

- Whenever problems occur with computer hardware or software the respective lab-in Charge / faculty member has to submit the computer service call form to the System administrator, through their respective HODs with authorization by Principal.

- The System administrator would attend the problem and rectifies the same, if it could be set right with the regular / minimal service. If, there would be any failure of Hardware resulting in replacement of spares, the purchase request through the respective HODs would be submitted by system administrator.

- Quotations would be collected from varied vendors / suppliers and should be submitted along with purchase / service request to the Principal for approval.

- Once approved, the parts would be purchased and after ensuring normal functioning for the Hardware the accomplishment of service request would be confirmed and hence closed.

- After service column in the computer service call form would be closed, once the problem has been solved.

- A log book for recording the daily activities in respect of servicing / maintenance would be maintained.

  - The items that cannot be serviced would be made obsolete. The usable parts / component / module / board in the condemned systems would be re-used in other systems, if it requires specific replacement.

GUIDELINES FOR UPGRADATION

- Requirements for upgradation such as RAM, motherboard, CMOS battery etc., would be given by the lab incharge through their respective HODs and authorized by Principal

- On approval of the management, the system administrator ensures the upgrading of Computers, after purchasing the necessary components by following the appropriate purchase procedures.

UTILIZATION OF COMPUTERS

- For utilization of computers, the users have to make an entry in the log register, kept in each department.

- The user should not plug in their external drives without prior permission.

- The respective user would be held responsible for any damage or malfunction of the computer, if it happen during his / her course of usage.

- The user should not claim any loss of data saved in the desktop.

- The user should not install /uninstall/delete any data or software in the desktop assigned, during the lab Sessions (hours).

- For using the computers after the working hours, the students should get permission from their respective HODs.

MAINTENANCE OF STOCK OF ICT TOOLS

- Stock registers have to be maintained for computer laboratory separately.

- Each entry should be signed by the staff in charge of the laboratory and the HOD concerned.

- Whenever a new staff member takes in-charge of a laboratory, he/she should take it, from his/her predecessor after physical verification as per the entries in the stock register. If there is any discrepancy, the fact should be reported immediately, to the Principal, through the HOD.

- If a staff member-in charge of a particular lab has availed long leave, HOD should make alternate arrangement immediately to entrust the stock to another staff member. The newly entrusted staff member should take possession of all the stocks immediately and the HOD has to report the fact to the Principal.

- Any breakage or damage of an item during its use should be immediately recorded, against the item mentioned in the stock register. This should include the reason for the damage and any breakage fees to be collected from the staff member / student whom so ever is responsible for the damage. In case of expensive items, the matter should be reported to the Principal immediately for its recovery through breakage fees (levied upon students). For inexpensive items, the breakage fee should be collected after the completion of all practical classes during the respective semester.

- Similarly, loss (theft) of any item should be recorded in the register and reported to the Principal for recovery of the cost from person responsible for the loss.

- After the recovery of the costs to be incurred for replacing or procuring the item lost / damaged, the specified the item has to be removed from the stock register in concurrence with orders of the Principal.

- If any old item has failed beyond repair and could not be set right for use, the same can be condemned after obtaining approval from the Principal. This has to be entered in the stock register.

- No transfer of computer/equipment/accessories/ any ICT tools from one department to another department (even within the same Department) should take place without prior permission of the Principal. As and when such a transfer has been made, a note against the item mentioning the date of issue, date of receipt and other relevant particulars, should be made in the respective stock register of the laboratory.

- If any computers/equipment has been found to be not functioning within the guaranteed period, the respective company should be informed and called upon for initiating the process of rectification at the earliest.

- Periodic service and maintenance of computers/equipments would be mandatory. The necessary action should be taken by the lab incharge/system administrator with the approval of HOD and Principal.

STOCK VERIFICATIONS

- Unscheduled / Uninformed checks on stocks would be carried out by the HOD in his/her Department at least once in a year. Principal or any member of the Management may conduct similar checks.

- Apart from surprise checks, annual verification has to be carried out by the staff members deputed by the Principal from other Departments before the end of the academic year.

- The stock verification for computers would be done in a single day at a stretch.

- Discrepancy noticed, if any, during stock verification should be reported to the Principal immediately for further action.

In view of the above, Dr. Panjabrao Deshmukh Nursing Institute Amravati, aims at:

- Timely up-gradation, replenishment, repairing and replacement of the resources and services.
- Setting standardized maintenance and utilization procedures for resources.

- Reducing the occurrence of accidents at workplace thereby ensuring safety.

- Ensuring effective utilization of computing resources for academics, training and administrative purposes.

❖ **Guidelines for students**

To ensure efficient and safe use of ICT tools in classrooms, this SOP outlines procedures for both student's usage and maintenance, encompassing proper equipment handling, reporting issues, and maintaining a conducive learning environment.

➢ **Student Usage and Classroom Etiquette:**

Before Use:

- Students should be instructed to turn off or silence all personal electronic devices upon entering the classroom.

- Ensure all equipment is powered on and functioning correctly before the start of the class.

During Use:

- Students should handle ICT equipment with care, avoiding touching or disconnecting cables without permission.

- Maintain a respectful and noise-free environment to facilitate learning.

- Ensure proper usage of software and online resources, adhering to school policies and copyright laws.

After Use:

- Students should ensure all equipment is powered down and in its designated place after use.

- Report any damage or malfunctions to the teacher or designated personnel immediately.

Reporting Issues:

- Students should report any technical issues or equipment malfunctions to the teacher or designated personnel immediately.

- The teacher should document the issue and report it to the IT department or relevant personnel for timely resolution.

> **Classroom Maintenance:**

Daily Checks:

- The teacher or designated personnel should perform a daily check of all ICT equipment to ensure it is functioning correctly.

- Ensure the classroom is clean and tidy, with all equipment stored properly.

Preventive Maintenance:

- Regularly check cables, plugs, and other components for damage and replace them as needed.

- Ensure that the classroom has a stable and reliable internet connection.

Emergency Procedures:

- In case of power outages or other emergencies, follow the school's established procedures for handling such situations.

- Ensure that all ICT equipment is protected from damage during emergencies.

Documentation:

- Maintain a log of all maintenance activities, including repairs and replacements.

- Document any issues or problems encountered with the equipment.

Key Personnel Responsibilities:

For Teacher:

- Instruct students on the proper use and care of ICT equipment.

- Report any maintenance issues to the IT department or relevant personnel.

- Ensure that the classroom is clean and tidy.

IT Department/Technician:

- Perform routine maintenance and repairs on ICT equipment.

- Provide technical support to teachers and students.

- Ensure that all ICT equipment is functioning correctly.

CONCLUSION:

In conclusion, integrating ICT tools into nursing education offers numerous benefits, from enhancing learning experiences to facilitating communication and collaboration, making it a crucial element for development and progress. Information and communication technology (ICT) is rapidly transforming the field of education, revolutionizing how we learn and teach. From interactive learning experiences and tailored instruction to enhanced access to information and resources, ICT is reshaping education in countless ways. This SOP serves as a framework to teachers and nursing students to improve the skills in use and maintenance of ICT tools.