**ICAICT202A Work and communicate effectively in an IT environment**

# Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to work and communicate effectively within organisational policies and governance arrangements using information technology (IT) systems, equipment and software.

# Application of the Unit

This unit applies to individuals undertaking an information and communications technology (ICT) user-support role in a small office environment.

**Elements Performance Criteria**

|  |  |
| --- | --- |
| 1. Prepare to communicate and work effectively within an IT organisation | * 1. Gather input from sources of information to develop, refine and document the ICT roles and services in an organisation   2. Develop clear knowledge of enterprise policies, procedures and organisational requirements   3. Document IT policy and procedures and determine whether they are applied in practice   4. Determine key players within the organisation and their role and importance |
|  | |
| 1. Use positive and varied communication strategies with ICT clients | * 1. Receive requests and enquiries regarding the use of ICT equipment, operating systems and software from clients and colleagues in a polite and appropriate manner   2. Respond appropriately to client and colleague requirements and identify options   3. Present written information and ideas in clear and concise language to ensure the intended meaning is understood |
|  | * 1. Record information or messages and refer client requests to the appropriate person according to organisational procedures   2. Inform client of the progress of their request or enquiry and advise them of the organisational process for answering their request or enquiry   3. Escalate inquiries that cannot be satisfied immediately   4. Supply follow-up information to client as required in a timely manner   5. Accommodate cultural differences in the workplace |

|  |  |
| --- | --- |
| Required skills | Section of Assessment |
| * communication skills to: * clarify the needs of customers * deliver required level and quality of customer service * relate to people from diverse backgrounds and people with diverse abilities   request advice, receive feedback and work with a team | 1-4  4  4  2-4 |
| * literacy skills to interpret: * relevant organisational policies and governance documentation   technical information, such as maintenance requirements for equipment | 1-4  1-4 |
| * planning and organisational skills to plan work priorities and arrangements | 2-4 |
| * technical skills to: * match equipment service requirements with maintenance processes | 2-4 |
| * use IT equipment, operating systems and software | 2-4 |

|  |  |
| --- | --- |
| Required knowledge | Section of Assessment |
| current industry-accepted hardware and software:   * products, with broad knowledge of features and capabilities * product directions * operational environment: * customer base * company products * services   organisational policies and procedures that cover:   * code of conduct * mission statement * routine work processes * systems, management structure and governance arrangements * principles of EEO and anti-discrimination * role and positioning of IT within the overall business objectives of the organisation | All tasks  All tasks  All tasks  All tasks  All tasks  All tasks  All tasks  All tasks  All tasks  All tasks  All tasks  All tasks  All tasks |

|  |  |  |
| --- | --- | --- |
| Overview of Assessment | Details Assessment | Section of Assessment task |
| Critical aspects for assessment and evidence required to demonstrate competency in this unit | * process internal and external requests according to organisational policies and requirements * respond promptly to client enquiries and requests from colleagues. | 4  2-4 |
| Context of and specific resources for assessment | * a workstation * a range of IT equipment, operating systems, software and technical information * organisational policies, procedures and governance documents * appropriate learning and assessment support when required.   Where applicable, physical resources should include equipment modified for people with special needs. | All tasks  All tasks  All tasks  All tasks |
| Method of assessment | * direct observation of candidate responding to clients’ requests and enquiries relating to the organisation’s IT systems, equipment and software * review of candidate’s collection of documented written messages and records * verbal or written questioning to assess candidate’s knowledge of organisational key roles, and technical capability and requirements. |  |

**Activity 1**

1.1 Gather input from sources of information to develop, refine and document the ICT roles and services in an organisation

**ICT Roles and services**

ICT services and roles have become more sophisticated with more specialization and greater sensitivity about client and customer care which translates to business success both financially and as goodwill. Ultimately a service that is not delivered with quality will not be sustained and can risk the viability of the organisation. Customer service is a complex multi layered delivery model that requires prompt, reliable, competent outcomes for clients. Where issues can’t be resolved a process that keeps communication and updates open with clients is needed until a resolution is found.

There are a number of ICT roles in organisations which will vary depending on its size.

To understand information and communications technology there is a need to define each term. Information is simply meaningful data. Data in turn is a collection of numbers, characters, symbols, graphics, audio and video. The result of processing data is that it is turned into useful information. Technology on the other hand is the practical use of the science and engineering knowledge for the creation of systems and solutions to help us in our jobs and our lives. There are a huge range of applications of technology in medicine, defence, environmental sustainability, networking, communications and data security. Information and communications technology also refers to the convergence of data, voice and video in one single converged unified network.

To understand Information and Communications Technology it is necessary to define computer systems and information systems. A **computer system** is usually understood to be **hardware** and **software**. An **information system** is **hardware**, **software**, **people**, **procedures** and **data**. An information system takes **data** and converts it to **information** which is defined as **meaningful data**.

ICT is used by every industry since every industry needs to collect, store, retrieve and use information. ICT is inevitably related to the computer network.

**Organisations**

Every organisation has a number of structures that are common such as

**Mission -** simple and short statement describing the purpose of an organisation

**Vision -** what the organisation would like for the future

**Strategic Plan –** a set of documents outlining key performance (KPA) areas and key performance indicators (KPI) for the organisation

**Policies and Procedures –** a policy is a principle and a procedure is a method. An organisation may be bound by law or devise its own best practice for a large number of policies and procedures for its operation.

**Standards –** refers to a minimum performance or quality level in an organisation. There are project, industry, national and international standards.

**Codes of Practice –** refers to a professional minimum level of performance for employees, supervisors, managers in an organisation.

Activity 1.1

Using the internet search for samples of

**Mission -**

**Vision -**

**Strategic Plan -**

**Policies and Procedures**

**Standards**

**Codes of Practice**

These can be from different organisations or the one organisation

.

Activity 1.2

In your own school with your assessor’s support find copies of the school’s

**Mission -**

**Vision -**

**Strategic Plan -**

**Policies and Procedures** – the policy in the IT services area

**Standards**

**Codes of Practice -** in any one area such as the reception desk of the office

**ICT positions and roles in organisations**

There are a huge number of ICT roles in organisations. These include

* Routine software, hardware and networking management and support
* Software, hardware and networking development and capacity improvement
* Training and skilling
* ICT product manufacturing

Roles can be internal or external so that consulting or outsourcing of ICT services can be the delivery model. This has brought employment flexibility to organisations so that they are no longer required to employ full time internal staff for ICT service delivery should they find this not suitable to budgetary or workload requirements. In addition, many maintenance and support tasks have been designed to be delivered remotely to save travel and expense.

Activity 1.3

Using the internet, intranet in your own organisation, your assessor’s assistance define the following roles in ICT in a single sentence

* Routine technical support
* Systems administrator
* Network administrator
* Programmer
* Systems analyst
* Database administrator
* Network engineer
* Solutions architect
* Software engineer
* Multimedia designer
* Elearning manager
* Network manager
* Information technology manager

Indicate which of these roles are found in your own organisation.

1.2 Develop clear knowledge of enterprise policies, procedures and organisational requirements

1.3 Document IT policy and procedures and determine whether they are applied in practice

1.4 Determine key players within the organisation and their role and importance

An organisation or enterprise will have policies and procedures that impact on its performance and its operations. For example, financial and decision making will be managed by a finance committee with representatives such as the Business Manager, accounts manager, CEO or Principal, ICT manager and others. In addition, specific programs or departments will have budgets for spending for a period of time, typically a year.

In addition, ICT specific policies will be relevant to how to escalate a problem that can’t be resolved at the first instance. This may be a hardware fault, a network issue, a permission issue regarding resources, a software installation issue, a new purchase issue, internet performance issue or any other ICT or networking issue. When a request is made to resolve a problem or to bring on line a capacity that the current installation does not have, it is not commonly handled by the first level routine technician. It is however escalated to a higher level such as a network engineer, solution architect or system administrator. It is up to that person to then deal with the issue and to offer a solution, a workaround or to refer to current policies that may simply disallow this type of request. Additionally, there would be a scope of services an ICT department would provide. Their tasks are to maintain and keep up to date school workstations and devices. If an employee brings in their home computer, this is not on the scope of works for the ICT department and they are perfectly entitled to refuse to carry out such a repair. Despite this policy, a private arrangement may be entered into outside of working hours to assist the employee if this is mutually agreeable between the employee and the technician or a referral to an external repairer may be made by the technician to assist the employee.

**Case Study 1**: An employee may want access to a social networking site during working hours. Some organisations do not allow this based on a policy decision and these sites are blocked from internet access. Therefore, escalation is not a solution pathway as the request is counter to policies.

**Case Study 2**: Installation of software will not be allowed on student workstations as a matter of policy. However, curriculum and coursework changes may require students to demonstrate software installation. In this instance the policy will need to be modified to allow particular groups of students to install software on an alternate image that can boot up as an alternate operating system.

**Case Study 2**: An employee would like to bring in a home computer for the technician to install school software onto. The technician explains that the licensing regulations at the College although College wide do not allow software installations on home private computers. The employee requests to escalate the issue to which the routine technician explains there is no provision to change the policy as it is not in the scope of the licensing.

**Organisational requirements**

An organisation will have requirements and priorities such as

* Access and equity principles and practice
* Business and performance plans
* Defined resource limits and capacities
* Ethical standards
* Professional standards
* Goals, objectives, plans, systems and processes
* Legal and organisational policies and guidelines
* OHS policies, procedures, processes and monitoring
* Quality and continuous processes and processes and standards and benchmarks
* Quality assurance and procedures documentation

These requirements will direct the activities, priorities, policies and procedures of an organisation to make all the functions of the organisation consistent. Requirements are there for consistency, priority and predictability. These requirements are documented and accessible to all affected employees, supervisors, managers and stakeholders which is a general term to a person or group who has an impact on or is impacted by a particular policy, procedure or process.

Activity 1.4

ICT policies for a secondary school can be found with a search on the internet. Here are a few links

<http://www.ballycastlehigh.org.uk/portals/4087bc7e-6b32-11e0-8cbf-2e234824019b/resources/ICT%20policy.pdf>

<http://www.google.com.au/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&cad=rja&ved=0CDoQFjAA&url=http%3A%2F%2Fwww.hillpark-sec.glasgow.sch.uk%2FWebsites%2FSchSecHillpark%2FUserFiles%2Ffile%2FSchool%2520Policies%2FICT%2520Policy.pdf&ei=Lm3yUIWVEobPlAWMioDoBQ&usg=AFQjCNH2xXArtjXkuuYLh_etoI51YbkB5w>

Using these and any other sites (not your own school ) identify which of the organisational requirements listed above are met with the policies shown here.

Activity 1.4

With your assessor’s guidance and support access the following policies in your ICT services section of your school or organisation:

* The ICT Acceptable use policy
* The ICT services policy and procedures
* The ICT Strategic Plan
* The elearning strategic plan

1. If any of these policies do not exist ask the responsible person to verbally describe the understanding of the policy as it exists and describe it.

2. Enquire if these policies are actually put in practice or if there is a “go to person” who makes these decisions on a case by case basis.

3. List the key personnel in the ICT services department and their roles and responsibilities including their job description

**Activity 2**

|  |
| --- |
| * 1. Receive requests and enquiries regarding the use of ICT equipment, operating systems and software from clients and colleagues in a polite and appropriate manner   2. Respond appropriately to client and colleague requirements and identify options   3. Present written information and ideas in clear and concise language to ensure the intended meaning is understood |
| * 1. Record information or messages and refer client requests to the appropriate person according to organisational procedures   2. Inform client of the progress of their request or enquiry and advise them of the organisational process for answering their request or enquiry   3. Escalate inquiries that cannot be satisfied immediately   4. Supply follow-up information to client as required in a timely manner   5. Accommodate cultural differences in the workplace |

**Communication in the workplace**

Communication skills are paramount for a successful workplace be that with internal or external clients, colleagues or customers, supervisors or operational workers.

Successful communication requires a number of ingredients and processes including:

* The ability to display care about other people and their reaction
* The ability to not judge or stereotype by listening carefully to the other person
* Viewing a situation from the other person’s point of view
* Using non-verbal signs such as body language, facial expression, posture and hand movements
* Selecting the method of communication such as face to face, email, phone, sms or group meeting
* The implications of a communicated message such as being open to feedback and without fear of criticism listening carefully to how a message is perceived
* Showing respect, interest and not getting emotional or interrupting
* Sensitivity to gender, race, religion and culture
* Seeking to learn and asking before answering and concluding
* Using words, diagrams, sounds, videos or any other content to make the communication more effective

**Receiving requests**

Receiving requests in an ICT environment in a respectful manner involves:

* Listening without interrupting while paying attention and making eye contact
* Using positive body language such as facial expression, posture, approval by nodding when necessary, smiling, using hand gestures when necessary
* Recording the essential points of a request such as name, contact information, details of the problem
* Providing the opportunity for the client to confirm you have understood their request correctly by summarising the request back to the client and awaiting confirmation that you have understood them correctly
* Providing information regarding how and/or when the request will be resolved

Activity 2.1

It is often said that when someone is speaking to you face to face the information gathered from words is approximately 10% or less; from tone of voice and inflection up to 40% and body position, gestures and facial expression up to 50%.

Try to explain and demonstrate the following messages and feelings

|  |  |  |
| --- | --- | --- |
| **Non verbal communication** | **Message** | **How delivered** |
| Face | * Anger * Happiness * disgust | Frown, tightened forehead |
| Hands and arms | * Distress * Impatience * resistance |  |
| Posture or body | * Relaxed mood * Disinterest * respect |  |
| body | * Contentment * Relaxation * Stress |  |
| eyes | * Disinterest * Anger * surprise |  |

**Obstacles to communication**

Communication can hit a barrier for many reasons. Some obstacles to communication include:

* Confusion in a message due to lack of clarity, too much detail, too much information or too many ideas and issues.
* Lack of awareness of the recipient, their capacity or what is achievable and what is not.
* Offending the listener, not seeking feedback or confirmation and demanding unrealistic outcomes
* Passing judgment, allegations, accusations without a clear explanation as to why, how or when an error was made or a service not delivered.
* Status, expectations, demands and directives without seeking to find out what can and can’t be done and why
* Perceptions, anger, assumptions and workload. When there is a perception that the speaker is totally insensitive to the listener who may be in the middle of a task, has to deal with a backlog of 10 jobs or has a queue of people and the speaker is insensitive to the others or the listener, anger, frustration and stress can be the result. Assumptions about a person’s intentions can create obstacles to good communication. Why is he here now? What did he mean when he said finish it as soon as you can when I have a line of people waiting?
* Stereotyping and prejudice can kill good communication. This can be due to someone’s appearance, culture, accent, volume when speaking, clothes, suburb in which they live, status in society, those for which English is not their first language.
* Lack of opportunity for feedback

Activity 2.2

Think of a time when you were not treated well as a customer or a student or as a family member that caused frustration and anger.

Which of the obstacles to good communication above were the causes of your anger and frustration ?

Activity 2.3

Your assessor will nominate a client who will make a request along the lines of hardware or software or network assistance. You are required to:

1. Receive the request according to your organisation’s ICT policies
2. If possible offer options eg. can the problem be resolved another way ?
3. Write the request in clear language and record as a job request

Activity 2.4

Your assessor will nominate a client who will make a request along the lines of hardware or software or network assistance similar to Activity 2.3 that require you to escalate the request to a higher person. You are required to use email to:

1. inform client that the task will be escalated
2. Update the client of progress in the task
3. be culturally sensitive by using modified language

**Assessment** – upon completion of the Learning Activities you can prepare for the assessment task to be organised by your assessor.

**Assessment – ICAICT202A Work and communicate effectively in an IT environment**

A number of components will need to be completed in this assessment task. The student will need access to:

* + 1. A desktop or laptop computer, keyboard, mouse, monitor and printer connected to the network
    2. USB memory to collect evidence of assessment components
    3. A copy of software used in this unit eg. Microsoft Office. A hardware device eg. printer
    4. Facilities to test or install a printer and test its functionality in accordance with OHS and organisational guidelines. These are identical to the OHS requirements in ICASAS203A Connect Hardware Peripherals
    5. Facilities to test or install a piece of software and a network function eg. connect a machine to the network, add a piece of software, add or modify hardware access
    6. Support to clarify questions and requirements of the task

**Your Task  
Evidence of the following is required. This can be as screen shots, documents of interviews and forms and templates completed, observation by assessor, photographs of completed work, answers to oral questions can be accepted.**

|  |  |  |
| --- | --- | --- |
| Task | C/NYC | Evidence of competency |
| 1. Describe the role of   * Routine technical support * Systems administrator * Network administrator * Network engineer * Information technology manager |  |  |
| 2. Access the key ICT services policies in your organisation with your assessor’s assistance and determine whether they are applied in practice. |  |  |
| 3. Using your organisation’s ICT policies and requirements and your assessor determine the key ICT roles in your organisation including external consultants or suppliers and describe their responsibilities. |  |  |
| 4.Your assessor will require you to respond to 3 service requests ( routine hardware, routine software, routine network) from an assessor appointed internal and external client(s) to which you will need to:  a) receive the request in a polite and appropriate manner  b) respond appropriately to the client making the request including clarifying or offering options  c) present the request in writing clearly  d) refer the request to an ICT technician nominated by your assessor  e) inform the client of progress and the organisational process to answer the request  f) escalate the enquiry to an assessor nominated technician if you cannot satisfy the enquiry  g) deliver follow up information to the client in a timely manner  h) demonstrate cultural differences in the request such as language modification |  |  |

**Competent / Further Training Required will be determined by your assessor**