Silver INGOT Unit 1: Improving productivity using IT (ITQ:IPU)

Relevant LINKS

BACK TO ITQ UNITS **[1]**

Handbook home page **[2]**

Overview

Improving productivity using IT at Silver Level requires the candidate to plan and review their use of pre-defined or commonly used IT tools for work activities that are straightforward or routine. As a result of reviewing their work, they will be able to identify and use automated methods or alternative ways of working to improve work productivity. Unfamiliar aspects will require support and advice from other people.

A work activity will typically be 'straightforward or routine' because:

The task or context will be familiar and involve few variable aspects. The techniques used will be familiar or commonly undertaken.

Example of context – Providing information on a web page to make it widely accessible.

Support for the assessment of this award [3]

Example of typical IT work at this level **[4]**

Assessor's guide to interpreting the criteria

General Information

QCF general description for Level 1 qualifications

- Achievement at QCF level 1 (EQF Level 2) reflects the ability to use relevant knowledge, skills and procedures to complete routine tasks. It includes responsibility for completing tasks and procedures subject to direction or guidance.
- Use knowledge of facts, procedures and ideas to complete well-defined, routine tasks. Be aware of information relevant to the area of study or work.
- Complete well-defined routine tasks. Use relevant skills and procedures. Select and use relevant information. Identify whether actions have been effective.
- Take responsibility for completing tasks and procedures subject to direction or guidance as needed.

Requirements

- Standards must be confirmed by a trained Silver Level Assessor or higher.

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- Assessors must at a minimum record assessment judgements as entries in the on-line mark book on the INGOTs.org certification site.

- Routine evidence of work used for judging assessment outcomes in the candidates' records of their day to day work will be available from their e-portfolios and on-line work. Assessors should ensure that relevant web pages are available to their account manager on request by supply of the URL.

- When the candidate provides evidence of matching all the criteria to the specification subject to the guidance below, the assessor can request the award using the link on the certification site. The Account Manager will request a random sample of evidence from candidates' work that verifies the assessor's judgement.

- When the Account Manager is satisfied that the evidence is sufficient to safely make an award, the candidate's success will be confirmed and the unit certificate will be printable from the web site.

- This unit should take an average level 1 learner 30 hours of work to complete.

Assessment Method

Assessors can score each of the criteria L, S, H. N indicates no evidence and is the default starting position. L indicates some capability but secure capability has not yet been achieved and some help is still required. S indicates that the candidate can match the criterion to its required specification. H indicates performance that goes beyond the expected in at least some aspects. Candidates are required to achieve at least S on all the criteria to achieve the unit. Candidates should be helped and encouraged to reference their work to the assessment criteria using assessment for learning process. e.g. IPU 1.1.2 for IPU Level 1 criterion 1.2. This will make it easier to provide the evidence required for the QA procedures when requested by the Account Manager. There is support for this from learner account profiles on the INGOT web site. PLTS is used to denote where there are opportunities to develop personal learning and thinking skills.

Expansion of the assessment criteria

1. The candidate will plan the use of appropriate IT systems an software to meet needs

1.1 I can identify the purpose of using IT in my work

At the simplest level this is knowing that IT can improve the quality and efficiency of work and builds on the requirements of the Entry Level 3 requirement through the candidate taking responsibility for identifying purpose and communicating it effectively in their own way in simple cases.

Evidence: will be provided directly from the presentation of work in web pages that has clear purpose. Discussion with assessor.

Additional information and guidance

Presenting information in different styles to different audiences. For example, the writing style in a forum or informal chat will show different characteristics from writing formally on a web page to present part of an e-portfolio. The candidate can use writing style differences to provide evidence of

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identifying purpose implicitly. Further evidence might include some awareness of what information is relevant and what is irrelevant to a task and whether information is accurate or biased. Might they consider a disability such as colour blindness? Candidates should use logical and appropriate structures to organise and process data indicating the purpose to which their work is being put. At this level they are not required to describe purpose in any detail and they can be provided with structured support so that they can identify purpose from, for example, a list of possibilities.

1.2 I can identify the methods, skills and resources needed to complete my tasks successfully

Building on the requirements for Entry 3, demonstrate a basic ability to plan their work with structured solutions including layout of text and pictures. This will require them to combine simple tools and straightforward techniques. They should show some evidence of checking the accuracy of the information they use and some self-sufficiency in using relevant tools to process and present information.
Evidence: Directly from their web pages, day to day files and dialogue with assessor.

Additional information and guidance

Candidates should know that information can be found from searching the internet, asking people and looking in books. They should be beginning to ask critical questions about the validity of information and its accuracy even if at only a very rudimentary level. They should be able to identify general IT tools and methods to construct and present information. They should be able to identify sequences of instructions as a standard way of automating processes leading to increased productivity. Note at this level it is identification rather than description or explanation.

1.3 I can plan my tasks using IT to achieve the required purpose and outcome

Candidates show evidence of planning by listing the resources they will need and estimating the time it will take to complete tasks in a structured way.

Evidence: Plans documented on web pages or in document files.

Additional information and guidance.

Planning should, where possible, include reference to anything learnt from previous evaluations or reviews demonstrating that learning is informing the planning process. This can be at a very simple level at this stage. e.g. In my last project I found that the information I found on one web site was wrong so I will check more carefully this time. Simple plans can be presented in any reasonable way as long as there is evidence of the use of IT and the evidence can be accessed from a URL or e-mail attachment.

1.4 I can give reasons for choosing a particular technology in my work

Candidates should be able to give reasons why some technologies are preferred over others including price, convenience, features, support, security, ethics.

Evidence: Reasons provided in day to day documentation on web pages or document files

Additional information and guidance

This is a good time to raise awareness of the difference between open systems and proprietary technologies. (PLTS) With fully open systems anyone can participate freely, with proprietary technologies, licensing determines who can participate and at what cost. This is a simplification because in practice there are degrees of openness. A fundamental risk with proprietary systems is getting locked into a monopoly where the supplier can determine the price almost without reference to any competition. In the case of fundamental technologies this can lead to extension of the monopoly to other applications. A good example is the relationship between Windows and the Internet Explorer web browser. Since early versions of IE came with Windows and had its own way of displaying web pages it meant that web sites were designed to fit this single proprietary technology

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killing off competition. This meant that there was little commercial pressure to improve the technology and for a time there were many security issues and problems for web site designers trying to work to published open standards. Now there is far more competition and a clear need to support internationally agreed open standards, development has accelerated, security is better, web site design and development is easier. Of course there is a problem with open systems that are free of charge at the point of use. Development costs money and an alternative business model is needed in order to recover costs. Without getting into the details of the economics, it is obvious that alternative models do exist from the increasing importance of open systems and open source software in the IT industry globally.

Openness is just one consideration but we are providing additional information about it because it is increasingly important and not generally well understood. We need to start somewhere if we are to have fully informed decision making later and there has been a tendency for established commercial systems to reinforce the impression that there is no real alternative. For truly digitally literate people there are alternatives demonstrating why education and learning are vitally important to providing true choice.

1.5 I can choose a particular technology to meet my needs

Candidates should show evidence of making a choice between different applications or systems based on specific rational reasons linked to their plans.

Evidence: Documentation of plans either in web pages or document files

Additional information and guidance

This implies that they should have some opportunities to compare technologies such as word processors, drawing packages or complete systems of software including combining technologies that help support structured solutions to problems. e.g. I chose to use Google's spreadsheet because it supports collaborative work. I work with OpenOffice.org at home because it is free. I use Moodle at school because it is the only software available to me to share my web pages. I chose Inkscape because it edits the internationally agreed standard .svg files and there are versions on the major computer platforms and it's free. I chose Audacity because it is free and I wanted to try it out.

1.6 I can identify an acceptable use policy and legal requirements that affect my work

Building on the requirements for Entry 3, we have

- Practical knowledge and participation with an Acceptable Use Policy (AUP)
- A basic understanding of copyright and licensing
- Key technical and security issues

Evidence: Participation through signing up to and respecting the AUP. Documentation in web pages or document files referring to their participation in the AUP. Assessors observation of appropriate behaviour in relation to AUP and copyright.

Additional information and guidance

Candidates should understand that an acceptable use policy is intended to support safe and responsible use of ICT in situations where there is participation by many people. Local policy for using the network and the AUP for the INGOT learning site are examples. (PLTS)

They should have a basic understanding of copyright and show evidence that they respect copyright by using suitably licensed resources given guidance. (PLTS) Evidence from making an account on the INGOT learning site and agreeing to the AUP and observing it during the course.

They should realise that there are technical constraints on tasks such as size and format of files, filters that make web sites inaccessible in some environments. They should be beginning to relate technical and security issues to staying safe on-line.

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2. The candidate will use IT systems and software efficiently to complete planned tasks

2.1 I can identify automated routines to improve productivity

Building on the requirements of Entry 3 IPU, candidates should be able to identify common keyboard short-cuts such as CTRL C to copy and CTRL V to paste. They should look in new software for keyboard short-cuts for often used operations such as CTRL S to save work. They should be familiar with the concept of macros, simple scripts and programs that can automate procedures or events (PLTS)

Evidence: will be provided by direct observation and dialogue with the assessor and simple program listings that they might produce, documented in their web pages.

Additional information and guidance

Automated routines cover a wide range of possibilities. Identifying them simply means that they can appreciate when automated routines are taking place and that is almost every computer operation that is not entirely trivial. By implication, if the candidate can use automated routines that they have selected or produced themselves they automatically satisfy 2.1.

2.2 I can use automated routines to improve productivity

Candidates should be able to demonstrate the use of automated routines as identified in the context of well-defined tasks that are subject to direction and guidance in keeping with the general description of Level 1 qualifications in the QCF.

Evidence: Direct observation and dialogue with the assessor, reference in day to day documentation of their work in their web pages or document files.

Additional information and guidance

For schools, this is an opportunity to teach some basic programming to reinforce understanding of how IT based automation works. Candidates can demonstrate that they can create precise and accurate sequences of instructions to automate a routine, for example drawing a shape or controlling a device. This could be in the logo programming language, Scratch, Greenfoot, a macro in a spreadsheet or a control programme in design and technology.

2.3 I can complete planned tasks using IT

Candidates should provide evidence of planned tasks completed with the use of IT where the task is well-structured and clear direction and guidance has been provided in keeping with the requirements for Level 1 QCF qualifications. At least one small scale project to produce a service or information resource for other people in keeping with the description of the general requirements for Level 1 qualifications is required. This project should normally be presented in web pages but this can be varied subject to agreement with the Account Manager at The Learning Machine Ltd.

Evidence: Web pages providing the presentation of their project. Descriptions in day to day documentation, dialogue with assessor.

Additional information and guidance

The candidate is advised to use work from across the other units to contribute to this project. This will reduce the administrative burden in sourcing evidence. Producing information in web pages supported by collaborative technologies - e.g. the preparation of a spreadsheet in Google Docs - with due regard for security will contribute evidence across all the units. While this is not mandatory, it is an allowable method. There is nothing to prevent the candidate providing all their evidence against the assessment criteria in this way.

3. The candidate will review the selection and use of IT tools to make sure tasks are successful

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3.1 I can check the outcomes of my work to make sure they are as intended
The candidate should be able to reflect critically on their work in order to make subsequent improvements. Where possible they should use the criteria to self-assess and peer assess their progress. They should gain feedback from the intended audience and take into account their initial plans or intentions. In keeping with the level of expectation for QCF level 1, guidance and direction can be used to support communication of their findings through structured templates and setting review criteria.

Evidence: Web pages providing the presentation of a review of their work eg their project, against specific criteria.

Additional information and guidance
Overall, they should provide evidence in their work that they have used criteria to evaluate the quality of solutions and the effectiveness of their work. This might be a simple check of specified intentions matching them to outcomes. This is what I intended, this was what actually happened. (PLTS)

As a specific example:

Project to teach young children about dinosaurs.

Planning intentions
1. Information is accessible to 7 year olds
2. Information teaches about carnivores and herbivores

Review criteria
Was information accessible to 7 year olds? - (check with a sample of 7 year olds, could they access the web page(s) could they read the text, did they like the presentation?)
What did the target audience learn about carnivores and herbivores?
Was the information used legal? (e.g. pictures sourced from Wikipedia because they are licensed to be shared.)

3.2 I can decide whether the IT tools I chose were suitable for my tasks
The candidate should make judgements based on an increasing knowledge of a range of IT tools, building from the requirements of Entry 3. In keeping with Level 1 qualifications, evaluation headings and descriptions can be provided against which a judgement can be made.

Evidence: Web pages or document files documenting simple evaluations of the tools used in projects or tasks.

Additional information and guidance
Evaluation criteria might include ease of use, value for money, quality of output and possible improvements to the way the tools work. They could use this as an opportunity to identify the benefits and limitations of using ICT both at home and at work. Some consideration should be given to cost and an increasing understanding of the importance of open systems. At this level the assessor will need to support this with advice on why free exchange of information between applications especially at least one that is freely available, is a highly desirable attribute. If information is tied closely to a commercial interest, the commercial interest can hold customers to ransom and other people can be forced to buy software licenses simply to access a colleagues or even their own information.

3.3 I can identify some strengths and weaknesses in my work on completed tasks
The candidate should be able to state in simple terms strong features and weak features of the work in relation to layout, clarity of communication, intended outcomes or other similar criteria.

Evidence: Web pages or document files providing the presentation of a review of their work e.g. their project, against specific criteria.

Additional information and guidance

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This can be tackled at the same time as 3.1 starting with the planned intentions, identifying strengths and weaknesses in relation to them and then reporting on the review outcomes overall. They should seek independent views from peers or other people where possible as an aid to improving and refining their work and respond positively to feedback even if they disagree.

3.4 I can suggest some improvements to make my work more effective
The candidate should provide suggestions for improvements in their written evaluations linking to evidence documented for 3.1 - 3.3.

Evidence: Web pages or document files providing the presentation of a review of their work e.g. their project, against specific criteria.

Additional information and guidance
Candidates should be encouraged to correct mistakes and adopt new and better ways of doing things as a natural part of on-going work. There should not be any obvious spelling errors or grammatical errors in finalised work since it should be picked up in the on-going evaluation process and corrected. Structured support can be given and candidates should be encouraged to seek help in pointing out needs but the candidate should always take some responsibility for improving their own work and make changes and amendments themselves. (PLTS) On the INGOT learner site, assessors should take opportunities to use e.g. the Assessor comment facility and there is a history available of all changes made to web pages.

Moderation/verification
The assessor should keep a record of assessment judgements made for each candidate guided by the above guidance. Criteria should be interpreted in the context of the general descriptors of QCF Level 1 qualifications. They should make notes of any significant issues for any candidate and be in a position to advise candidates on suitable routes for progression. They must be prepared to enter into dialogue with their Account Manager and provide their assessment records to the Account Manager through the on-line mark book. They should be prepared to provide evidence as a basis for their judgements through reference to candidate e-portfolios. Before authorising certification, the Account Manager must be satisfied that the assessors judgements are sound. In the event of missing evidence, the assessor will be requested to gather appropriate information before the award can be made.

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