Level 3 - Unit 3 - Using Collaborative Technologies (6 credits)

Platinum - Unit 3 - Using Collaborative Technologies

Relevant LINKS

BACK TO ITQ UNITS **[1]**

Handbook home page **[2]**

Overview (Under Development)

The candidate can understand and fully explain why they are using collaborative tools and the advantages and disadvantages of teamwork, including the dangers of opening up this work style on the Internet. They will investigate and from their findings setup the best tools to further collaborative work. They will customise these tools for the most efficient usage and be able to use them to display their use in making tasks work productively.

A work activity will typically be 'non-routine or unfamiliar' because the task or context is likely to require some preparation, clarification or research to separate the components and to identify what factors need to be considered. For example, time available, audience needs, accessibility of source, types of content, message and meaning, before an approach can be planned; and the techniques required will involve a number of steps and at times be non-routine or unfamiliar.

Example of context – an example might be to create a system to support other subject areas, such as a CRM (Content Resource Manager) for Business Studies or a shared area to develop and support a web site for a local community business.

Activities supporting the assessment of this unit **[3]**

Example of work at this level **[4] (coming soon)**

Assessor's guide to interpreting the criteria

General Information

QCF general description for Level 3 qualifications

- Achievement at QCF level 3 (EQF Level 4) reflects the ability to identify and use relevant understanding, methods and skills to complete tasks and address problems that, while well defined, have a measure of complexity. It includes taking responsibility for initiating and completing tasks and procedures as well as exercising autonomy and judgment within limited parameters. It also reflects awareness of different perspectives or approaches within an area of study or work.

- Use factual, procedural and theoretical understanding to complete tasks and address problems that, while well defined, may be complex and non-routine.

- Address problems that, while well defined, may be complex and non-routine. Identify, select and use appropriate skills, methods and procedures. Use appropriate investigation to inform actions. Review how effective methods and actions have been.

- Take responsibility for initiating and completing tasks and procedures, including, where relevant, responsibility for supervising or guiding others. Exercise autonomy and judgement within limited parameters information and ideas

Requirements

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

- 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 and files 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 3 learner 50 hours of work to complete.

Assessment Method

Assessors can score each of the criteria N, L, S or H. N indicates no evidence. L indicates some capability but some help 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 a S on all the criteria to achieve the full award.

Expansion of the assessment criteria

1. Candidates will stay safe and secure when dealing with collaborative technology

1.1 I can explain what and why guidelines need to be established for working with collaborative technology

Candidates should be able to explain the guidelines they have chosen and why they are appropriate

Evidence: will be provided guidelines and portfolios.

Additional information and guidance

Collaboration is never easy. If you have ever watched the live parliamentary debates (and why wouldn't you!), you will know that consensus even among people who are broadly in agreement with each other is never a given. Candidates need to investigate a range of guidelines they use themselves, and decide, with explanations, why they might be useful for their collaborative projects. These might be the school or college's AUP, or perhaps the terms and conditions of engagement they sign up to when using online communities such as social media sites. This Facebook policy guide [5] might be helpful. Candidates need to show that they understand some of the problems that might occur and how they might be limited by good guidelines and best practice.

1.2 I can develop and implement guidelines for good practice in working with collaborative technology
Candidates should be able to create a guide and then deploy it.

Evidence: will be provided by final guide and assessor feedback and observations.

Additional information and guidance

Candidates will need to produce a set of guidelines and then publish or distribute these, depending on the nature of the collaboration they are working on. These guidelines do not necessarily need to be final and can be something of a living document that can be adjusted based on discussion and evidence. The benefit of collaborative technology and communities of people is that there is the medium available for discussion and consensus already built in. This should be encouraged to be used where appropriate.

1.3 I can explain how to establish an identity or present information that will promote trust
Candidates should be able to produce clear guidelines or instructions about how to foster and maintain trust.

Evidence: will be provided by assessor observations and portfolio reflections.

Additional information and guidance

Many web based sites these days are designed to allow a certain amount of anonymity and in many cases this might be useful. However, it sometimes fosters unpleasant behaviour and allows people, such as trolls, to be nasty and vindictive towards others. There is a need for balance and candidates need to show that they are aware of this balance and they have created their system in order to foster the best behaviour and collaboration from the system's users. They may need to provide to their users and co-collaborators an expected identity profile and this will vary depending on the nature of the project. Some software development communities will have specific forums for areas of specialisation, so that people can contribute based on their skill set, as well as having more general forums for open ended discussions and comments. Candidates should collect and comment on some examples to illustrate their thinking where appropriate.

1.4 I can develop and implement guidelines for checking the authenticity of identities and different types of information
Candidates should be able to identify information as valid when it relates to their users and create ways to make this more manageable.

Evidence: will be provided by produced guidelines and assessor observations.

Additional information and guidance

Is there any way to know for sure that people are who they say they are? It is relatively easy to create any email account on Google, for example, though you need to have some other email address for them to verify. This also acts as a way to back-track people who might use this

anonymous email as a means to some unpleasant activities. How can you ensure this type of authenticity checks on your system? In most cases, web based systems have a number of checks. You could use something like Recaptcha to ensure that the person filling in the form is actually a person. You might ask for more than one other email and perhaps a mobile phone number so that people can be verified, though this will also mean that you will then need to secure and manage this personal data as part of the DPA. If information is posted on your site, how will you control this. Recent examples on Wiki have shown that the open nature of the site means that anyone can post information about people that will tarnish their reputation. is everything on the Internet true? What processes will you develop and deploy to check the accuracy and validity of the people and information that you are hosting?

1.5 I can analyse and plan for the risks in the use of collaborative technologies for different tasks
Candidates should be able to research and comment on various risks associated with collaborative technologies.

Evidence: will be provided portfolios and assessor feedback.

Additional information and guidance

The nature of the information underpinning the collaborative system will determine the nature of the risks. If you set up a collaborative site as part of your English A level group to create your own on-line celebrity gossip website, then you will need to make sure that all of the information on the site is as true and as accurate as possible or else you will quickly find yourself receiving summons to appear in court for libel and slander. If the information is a factual site to promote something like a higher uptake of science in the wider populace, then the information cited will need to be accurately referenced and not plagiarised. All of these risks are easy to find and hopefully plan against, though there will be no perfect system, at least the candidates can show that they are aware of this and have done their best to mitigate the worst of the risks.

1.6 I can analyse and manage risks in the use of collaborative technologies
Candidates should be able to identify the nature of risks and deal with them appropriately.

Evidence: will be provided by documented actions and guidelines.

Additional information and guidance

All of the above criteria should establish some guidelines and best practices to minimise risks. However, some elements will still get through all of these checks and the candidates will need a final way to manage the potential problems that may come through collaboration. They will need to be able to look at the risks and judge whether they are something they can deal with on their own, or something they might need to refer to others, such as the police or other responsible organisations. The great thing about the Internet is that it is global and open, but this also represents a great deal of challenge for candidates who are creating a collaborative system.

2. Candidates will plan and setup IT tools and devices for collaborative working

2.1 I can explain the features, benefits and limitations of different collaborative IT tools and devices for work purposes and tasks
Candidates should be able to evaluate collaborative tools in order to make a good judgement about their use.

Evidence: will be provided by documentation and reflections.

Additional information and guidance

Candidates should look at as many collaborative tools as possible and compare their features side-by-side in an objective way. They can create a matrix to look at the benefits and limitations related to their intended use. There are numerous free systems that can be explored, for example here [6]. This site allows you to log on as an administrator or user and see how they system performs before downloading and installing it yourself. If candidates are looking at a CMS (Content Management System) in order to be a platform for their collaboration, this is a good place to start. In most cases, they will be quite similar in their features and functionality, so what makes one better to use than another. Are their wider issues. The more popular open source CMS systems, such as Joomla for example, are more open to attack as they have a larger user base so are more attractive to hackers and people interested in fraud. However the smaller systems, in terms of use, might not have as many features and they may not be as functional as the people who develop the code do not have a big enough user base for quality feedback to improve it.

2.2 I can determine the IT tools and processes needed for archiving the outcomes of collaborative technology
Candidates should be able to explain and demonstrate the skills required to archive their collaborative material.

Evidence: will be provided by assessor observations and portfolio reflections.

Additional information and guidance

Different systems will handle this in different ways and perhaps some of this relates to 2.1 above. Many collaborative systems will have built in methods for archiving. For example, the learning based system Moodle has a way to back-up the entire site or individual courses [7]. Another popular system in use for many collaborative sites is Wordpress. This also has different ways to backup and save material. Beyond the application level archiving, there is als the system based approaches. many collaborative sites run on web servers and the site has PHP code folders that are linked to a back-end database. To fully archive this type of site, you would need to make a zip file of the codebase as well as a database dump. Both of these would need to be archived, but then you need to decide how often you would do this and how many copies you might keep. If the data is important and may need to be re-visited, how easy is it to restore the discussions at a later date. If you use something like Google groups, can you archive this, or is it enough that Google have it all for you? These are some of the ideas that would need to be explored and documented.

2.3 I can summarise ways to integrate different collaborative technology tools and devices for a range of purposes, tasks and communication media
Candidates should be able to show a range of research findings based on collaborative tools.

Evidence: will be provided by portfolio evidence.

Additional information and guidance

Most collaborative technologies are web based which normally means they are widely accessible beyond a desktop based computer. There are apps available for most popular collaboration based software systems, such as Wordpress or Drupal, for example, as well as ways to works on Google groups or Hangouts. Candidates need to demonstrate that they understand the wide range of options and can give examples of when and why they might be used, for example using Google Hangouts or some other web based communication tool to have face-to-face meetings as opposed to email based ones. This choice has wider implications about connectivity as video based conferencing tools require quite a lot of bandwidth and some require specialist software that might not work on all operating systems.

2.4 I can explain potential access and compatibility issues with integrating different collaborative technology tools and devices
Candidates should be able to show their understanding of a range of access and compatibility issues.

Evidence: will be provided by assessor observations and portfolio reflections.

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Additional information and guidance

Since collaborative tools are designed to work across as many platforms as possible, this does mean that they will not be perfect for all. Not all web browsers comply with the WC3 guidelines, for example, so a website might not work the same on all browsers and may therefore exclude some users. For example, many public organsations still use un-supported versions of Internet Explorer which do not work well with web 2.0 technologies. Collaborative tools need to be as light weight as possible since many people accessing will not be on high speed Internet connections and will be on older versions of mobile devices. This all needs to be tested and evaluated. Candidates can make a document or guide to show what possible issues there might be and how, if at all, they can be overcome. There is also the issue of balance. The tools may require a complex password policy for security, but this might make it inaccessible for people with specific learning needs. The candidates can also begin to look at the need for standards, such as the W3C guidelines, in order to address these problems.

2.5 I can select, connect and configure combinations that exploit the capabilities and potential of collaborative tools and devices
Candidates should be able to demonstrate basic workable systems.

Evidence: will be provided assessor observations and systems access for moderators.

Additional information and guidance

Candidates should now have a reasonable plan about what tools they have tested and approved and how all of these will join up. They don't have to make it all work at this point, but at least evidence that they know more or less what they will use and why. They may produce a draft plan for implantation.

2.6 I can resolve access and compatibility problems so that different collaborative tools and devices work successfully
Candidates should be able to trouble-shoot their systems.

Evidence: will be provided by assessor observations and portfolio based reflections.

Additional information and guidance

Due to the fact that there are no complete standards on the Internet, there will always be some issues and problems to overcome, especially surrounding compatibility and access. Where possible, candidates need to test as many devices as possible. In some instances, such as access to expensive proprietary systems such as Apple devices, they might be abe to use emulators as a substitute.

3. Candidates will prepare collaborative technologies for use

3.1 I can evaluate data management principles, issues and methods
Candidates should be able to choose, through research and analysis, the best tools for the optimum amount of collaborative usage.

Evidence: will be provided by documentation and student reflections.

Additional information and guidance

The core of collaboration will be creating and sharing data. The nature of the data will dictate how much can be collected and shared. Some systems may produce data that is difficult to access outside of the system, such as using Google groups. Candidates need to explore how the data will be managed, what type of data will be produced and how it can be cataloged and shared effectively

amongst the wider community of users. The issue of standards is once again at the fore here. There are data exchange formats such as csv (Comma Separated Version) files, and most open source databases such as Postgresql or MySQL will be interchangeable. They might have to explore exporting data into web based formats such as XML (eXtensible Markup Language) and consider what this will mean in terms of set-up and long-term maintenance.

3.2 I can manage levels of access and permissions for different purposes
Candidates should be able to effectively manage their systems.

Evidence: will be provided by assessor observations and moderation access rights.

Additional information and guidance

Systems are generally based on access rights and permissions. Once you are logged on, what are you allowed to do. Most systems will have an overall administrator who can make fundamental changes to a system. How many people should have this role. There are then various roles depending on the system itself. Users will be allowed to add and modify core content, or just be allowed to respond to pre-made questions. Are they allowed to archive materials, upload or download documents etc. These need to be carefully considered and should not be dished out without due regard. There may also be a need for some type of progression, for example if someone proves to be an effective contributor over a number of months, you might consider elevating them to be in charge of a forum or section. What rules and guidelines would be used for this?

3.3 I can select and integrate different elements across applications to create environments for collaborative technologies
Candidates should be able to mix and match different elements to make a working whole.

Evidence: will be provided by learner reflections and assessor observations.

Additional information and guidance

Candidates should be able to enable different functionality across their system for different users and purposes. For example, if they are setting up a Moodle site for their school and managing this, they can allow some teachers to add different blocks and modules for advanced learning. On discussion boards, they might enable users to be able to submit pictures for comment or reflection. The nature of the collaboration will determine what additional features they employ and therefore integrate.

3.4 I can set and adjust settings to facilitate use of collaborative technologies by others
Candidates should be able to configure the system for optimum use.

Evidence: will be provided by guidance created by the candidates, or settings for moderators.

Additional information and guidance

This ties in with 3.3 above. Once they have enabled certain features, they can then customise these to work as expected for the different user levels. These can then be monitored and adjusted as required.

3.5 I can manage data flow to benefit collaborative working
Candidates should be able to facilitate collaboration.

Evidence: will be provided by candidate reflections and assessor observations.

Additional information and guidance

Collaboration, sadly, is not always self-sustaining. In some instances the discussions or sharing may begin to fade and eventually disappear altogether. It is up to the candidate to make sure that the

collaboration is supported and well facilitated. They may need to post some contentious issue or post some new findings in order to keep the participants engaged and supplied wit the material they need to fully collaborate. They may need to identify very active users and reward them in some way, or equally, support users who are not active at all. They may need to work on how documents might be managed more effectively. Many CMS systems, such as the open source system Alfresco, operate with version controls, so that documents can be collaborated on and each change noted and reflected on. All of this can be controlled to make the whole process more effective and productive and the candidates need to make tis happen and show the evidence.

4. Candidates will manage tasks using collaborative technologies

4.1 I can determine levels of responsibility for the use of collaborative technologies
Candidates should be able to make the required changes to systems to ensure they continue to be effective.

Evidence: will be provided candidate reflections and recommendations.

Additional information and guidance

Most systems based on collaboration have built in ways to encourage and reward participation. For example, forum based systems will have various thresholds whereby if a person posts more than 100 comments, they move from a Bronze to a Silver poster role. These can be set up initially by the candidates, but might need to be adjusted based on the volume of collaboration. If the levels are low, they might consider lowering the thresholds, or if they are busy, making them higher. The candidates might also do the initial set up of roles. Some collaborative systems will have pre-set roles, but also the facilities to override these.

4.2 I can facilitate others' responsible contributions to and engagement with collaborative technologies
Candidates should be able to

Evidence: will be provided

Additional information and guidance

As a collaborative system evolves, the manager, in this case the candidate, will begin to notice patterns of behaviour and begin to see the emergence of people who are willing to do more in key areas than others. These users can be contacted to see if they require more responsibilities. In some cases, the system will do this automatically, for example forums will promote very active users to higher roles and responsibilities. many of these forums use a **master** type of approach, where the user becomes seen as an expert on the system and one that can be trusted for good support and advice. The candidates need to show that they are aware of these processes and can take the necessary action, either by using facilities in the system to reward these users, for example if they go above X number of posts, or perhaps having a voting system so that other users can vote for that person to change their role.

4.3 I can manage the moderation of collaborative technologies
Candidates should be able to moderate a system.

Evidence: will be provided by assessor observations and candidate reflections.

Additional information and guidance

Moderation is central to a good collaborative technology. People can be quickly turned off by a large number of abusive or threatening posts and these need to be well managed. Most systems will have

some sort of flagging system so that other people can flag content as unsuitable. The candidates can then moderate this to make sure it is suitable or not. This may be determined by policies they established or might be outside of these, in which case they need to make a judgement based on their feelings for the benefit of all.

4.4 I can oversee the archiving of the outcomes of collaborative working
Candidates should be able to understand and participate directly or indirectly in the archiving process.

Evidence: will be provided by assessor feedback.

Additional information and guidance

As Chaucer (allegedly) once said, **all good things must come ot an end**. The collaborative material that your participants are working on might come to a natural conclusion at some point and it is therefore required to move this away from the active site. However, some material might be useful for reference in which case it needs to be archived. As discussed in 2.2 above, this needs to be managed and whatever methods is used, either internal to the software or external to the server, the candidates need to make sure it is done effectively and they know where and how to retrieve the archives.

4.5 I can explain what problems can occur with collaborative technologies
Candidates should be able to discuss with examples some of the key problems.

Evidence: will be provided by candidate observations and reflections on a portfolio. Could also be a videolog.

Additional information and guidance

This criterion will be easier to meet once the site has been running for a while. It would be useful for candidates to keep a log of problems and solutions. They might even create and deploy another open source web site to track these as tickets.

4.6 I can respond to problems with collaborative technologies and be prepared to help others to do so
Candidates should be able to reply to general and more specific comments.

Evidence: will be provided by responses demonstrated on the site or via support logs.

Additional information and guidance

If people using the system have an issue, be it connectivity or problems with other users, the candidate has the responsibility to sort it out. A log of these problems and their solutions will make it easier to fix should it re-occur and might be useful for the developers of the software if it appears to be a bug.

Moderation/verification

The assessor should keep a record of assessment judgements made for each candidate and make notes of any significant issues for any candidate. They must be prepared to enter into dialog 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 and through signed witness statements associated with the criteria matching marks in the on-line markbook. Before authorizing certification, the Account Manager must be satisfied that the assessors judgements are sound.

Links
[1] http://theingots.org/community/ITQ_unit_development
[2] http://theingots.org/community/handbook2
[3] http://www.theingots.org/community/ITQcourse1
[4] https://theingots.org/community/sites/default/files/uploads/user4/PupilFNC7.pdf
[5] https://www.facebook.com/communitystandards
[6] http://www.opensourcecms.com/scripts/show.php?catid=all&category=All+CMS+Demos
[7] https://docs.moodle.org/22/en/Backup_and_restore_FAQ