T-LEVELS | Institute for Apprenticeships & Technical Education

Employer set project student pack

T Level Technical Qualification in Digital Support Services (Network Cabling and Digital Infrastructure)

NCFE

Contents

Introduction

If you are a student studying the T Level in Digital Support Services (Digital Infrastructure and Network Cabling) and preparing for the employer set project (ESP), this support pack is for you.

We know that the ESP can seem daunting and there are so many points to consider and skills to develop, but we are here to help. This support pack contains guides and activities to help with your ESP preparation. These activities are designed to supplement your classes and to support your independent learning. The supporting activities range from English writing, reflection, defining key terms, guidance on how to apply the core skills etc.

We do not recommend working through the supporting activities all at once; it can be a lot to digest. The first section is a self-assessment, this is a good place to start to identify areas where you would benefit from more support. Start with these key areas and then work through the others step by step.

Self-assessment

In each of the areas below, give yourself a RAG rating (red – R, amber – A or green – G). Rate yourself 'red' if you are not confident in this area, 'amber' if you have some confidence and 'green' if you are very confident. Once you have completed a section of this pack, come back and rate yourself again, explaining why you have given yourself that rating. If you are still on red or amber, what are your next steps (or actions) to turn this to a green?

Area	Rating before		Rating after		Next steps
	RAG	Why	RAG	Why	
Key terminology					
Core skills					
English and maths (E&M) skills in your employer set project (ESP)					
The importance of evaluation skills in your ESP					
The importance of justification skills in your ESP					

Area	Rating before		Rating after		Next steps
	RAG	Why	RAG	Why	
Use of troubleshooting frameworks					
Tools used to troubleshoot					
Creating a test plan					
Top tips: preparing for an interview					
Communicating with stakeholders					
Creating a project proposal					
Costing a project					

Area	Rating before		Rating after		Next steps
	RAG	Why	RAG	Why	
Identifying security concerns within a project					
Proposing solutions to meet business needs					

Key terminology

Here are some of the key terms from the T level Technical Qualification in Digital Support Services specification. Once you have covered these areas, or for revision, summarise the key terms in the space provided. There is space at the end for you to add any other terminology you feel would be useful.

Term	Summary
Route core element 1: Business context	
Change management	
Code of conduct	
Digitalisation	
End user needs	
Measurable value of digital services	
PESTLE (Political, Economic, Social, Technology, Legal and Environmental)	
Stakeholders	
Types of hackers	

Term	Summary
Route core element 2: Culture	
Autonomous operation	
Dehumanisation of service	
Ethical and moral impact	
Inappropriate use	
Mitigation techniques	

Term	Summary
Route core element 3: Data	
Access control methods	
Applications of data	
Characteristics of data	
Data access management	
Data flow diagram (DFD)	

Term	Summary
Data modelling	
Directory-based structure	
Entity relationship diagram (ERD)	
File-based structure	
Information systems	
Methods of storing data	
Visualising data	

Term	Summary
Route core element 4: Digital analysis	
Characteristics of algorithms	
Computational thinking	
Decomposition diagram	
Flowchart	

Term	Summary
Pseudo code	

Term	Summary
Route core element 5: Digital environments	
Components of physical computing systems	
Cloud services	
Function of Internet of Things (IoT)	
Hypervisor	
Local area network (LAN)	
Methods to create resilience	
Metropolitan area network (MAN)	
Network referencing models	
Personal area network (PAN)	
Protocols	

Term	Summary
Virtual private network (VPN)	
Virtual machine (VM)	
Wide area network (WAN)	

Term	Summary
Route core element 6: Diversity and inclusion	
Demographic imbalance	
Digital inclusion	
Diversity	
Equality Act 2010	

Term	Summary
Route core element 7: Learning	
Bias	
Boud, Keogh and Walker's model	
Design thinking	
Emerging technology	
Gibbs' Reflective Cycle	
Kolb's Experiential Learning Cycle	
Professional development	
Reliability	
Sources of knowledge	
Validity	

Term	Summary
Route core element 8: Legislation	
Computer Misuse Act 1990	
Copyright, Designs and Patents Act 1988	
Data Protection Act 2018	
Controlling the Assault of Non-Solicited Pornography and Marketing (CAN-SPAM) Act 2003 - USA	
Digital Economy Act 2017	
Electronic Communications Privacy Act (ECPA) 1986 – USA	
European Convention on Human Rights (ECHR)	
Freedom of Information Act 2000	
General Data Protection Regulation (GDPR)	
Health and Safety at Work etc Act 1974	
Human Rights Act 1998	

Term	Summary
Industry standards	
Non-compliance	
Public Sector Bodies (Websites and Mobile Applications) (No.2) Accessibility Regulations 2018	
Waste Electrical and Electronic Equipment (WEEE) Directive 2012	

Term	Summary
Route core element 9: Planning	
Cost-benefit analysis	
Ineffective project planning	
Project lifecycle	
Project planning techniques	
Project scope	

Term	Summary
Route core element 10: Security	
Commercially sensitive information	
Confidentiality, integrity and availability (CIA)	
Identification, authentication, authorisation and accountability (IAAA)	
Internet security assurance	
Non-technical threats	
Risk mitigation controls	
Technical threats	

Term	Summary
Route core element 11: Testing	
Purpose of testing	
Root cause analysis	
Testing methods	

Term	Summary
Route core element 12: Tools	
Agile methodology	
Communication tools	
Evaluation tools	
Gantt charts	
Power interest matrix	
Presentation tools	
Rapid application development (RAD)	
Spiral methodology	
Waterfall methodology	

Term	Summary
Pathway core element 1: Careers within the digital support services sector	
Job roles	
Responsibilities	
Skills required	

Term	Summary
Pathway core element 2: Communication in digital support services	
Communication factors	
Communication formats	
Communication methods	
Communication techniques	
Interactions with stakeholders	

Term	Summary
Pathway core element 3: Fault analysis and problem resolution	
Fault analysis tools	
Application of organisational frameworks	
Root cause analysis approaches	
Principles of incident management	
Information Commissioner's Office (ICO)	

Term	Summary	RC No
Add any additional terms here along with the route core element number it relates to		

Term	Summary	RC No

Core skills

The employer set project (ESP) brief requires that students apply and contextualise core knowledge through the demonstration of the 4 core skills, and these are demonstrated through the completion of the tasks. These core skills include:

Core skill 1	Communicate information clearly to a technical and non-technical audience
Core skill 2	Work with stakeholders to clarify and consider options to meet requirements
Core skill 3	Apply a logical approach to solving problems, identifying and resolving faults whilst recording progress and solutions
Core skill 4	Ensure activity avoids risks to security

Key core skills terminology

Core skill	Describe this skill in your own words, and how you could demonstrate it
Communicate information clearly to a technical audience	
Communicate information clearly to a non-technical audience	
Meet requirements	

Core skill	Describe this skill in your own words, and how you could demonstrate it
Apply a logical approach to solving problems	
Identify and resolve faults	
Record progress and solutions	
Avoids risks to security	

Employer set project (ESP)

Regardless of the task or activity it is important that you read the project brief carefully before starting any work, so they you get a clear understanding of what is required. You must work independently and make your own decisions as to how to approach the tasks.

The employer set project will assess your knowledge, understanding and skills from across the full core content of the qualification. The maximum time you will have to complete all the tasks is 12 hours 10 minutes.

You will be provided with an overall scenario, such as the one below, that will provide the setting for the employer set project. You should read this and identify any key information (see examples highlighted in yellow below) that might help you with your answer.

Scenario

You are working as an infrastructure technician for Willow Technology.

Willow Technology currently operates from offices in Southampton and has recently opened a satellite office in York. Remote workers access company resources by connecting via virtual private network (VPN) configured at the Southampton office, allowing access to shared files and resources. York workers are currently treated as remote workers.

Staff are complaining that access to the VPN is unreliable and is becoming more so as the company is growing. Currently, connectivity has been lost completely and users are simply receiving the following error:

Cannot connect to Willow VPN. The connection was terminated by the remote computer before it could be completed.

Additionally, you will also see a brief which outlines the role and the requirements throughout the employer set project. You should carefully read this to identify any key information that *might* help with your answer.

Scenario role

As part of your role, you are involved in a large, infrastructure project but have also been asked to support with a recurring connectivity issue faced by end users.

Once you have resolved the initial connectivity issue, you should research and propose an effective solution that will support the wider infrastructure project with the aim of facilitating remote staff at the York office to utilise resources from the main Southampton site efficiently.

Task 1: troubleshooting

For each task you will see an additional scenario that outlines the requirements for each individual task. You should read this carefully and pick out any key information (see examples highlighted in yellow below) that might help with your answer.

Task scenario

Your line manager has asked you to ==investigate the issues the York staff are having==. As you are working remotely you have ==been provided with a topology diagram== (control documents A and B) that ==show the current network configuration==. This will allow you to ==troubleshoot issues and plan your changes to the network==. You also have a copy of the current configuration page (control document C) for the router firewall.

Due to working remotely, your line manager has asked you to show your proposed changes required to resolve the issue on the firewall configuration document (control document C) and design a test plan that could be followed, by a colleague in the office, to test the changes made have resolved the issue.

Task 1 overview

For this task you'll be presented with a problem relating to a network setup. You will also be given a document containing an appropriate diagram for this task (for example, a topology diagram showing the network configuration). You will need to use the information supplied to investigate the root cause of the fault, and you will have access to the internet to allow you to research and identify solutions to the problem.

This document will provide you with support on preparations and consideration when producing the ESP evidence required for this task, which include a test plan and supporting documents.

You will always be asked to produce a test plan for task 1 where you will demonstrate your research skills to identify a solution to the problem and how you would plan to test the solution. You will also be awarded marks for the design of the test plan (for example, the detail that you include).

You will be asked to produce additional evidence for this task, such as a help guide or annotated documentation, that allows the IT user to resolve the network issue.

Test plan

For the test plan you'll need to make use of troubleshooting frameworks and tools used during the troubleshooting process (for example, a fishbone diagram used to identify the root cause).

Below is an example of how you could structure your test plan with different aspects to consider.

Purpose and approach

You should provide a brief overview of the purpose/scope of this testing plan (for example, "The purpose of this test plan is to support our IT users and to find the root cause of the …"). Adding this can also help you to focus your mind on the key issue.

You may want to add information here regarding the root cause analysis approach you have decided to take, such as:

- the 5 whys
- fishbone diagram
- failure mode and effects analysis (FMEA)
- event tree analysis (ETA)

This is to help you focus your response on the problem and to ensure various aspects are considered. For example, the fishbone diagram below shows a very basic root cause analysis approach that could be taken:
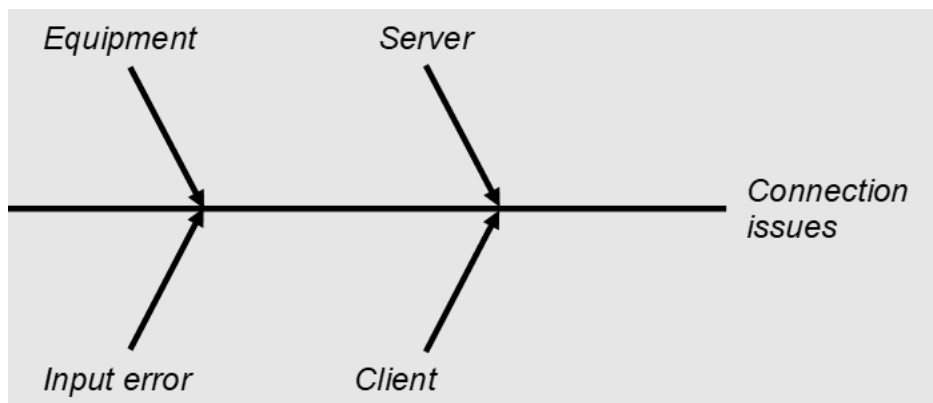
Your test plan is the focus and the above work should have helped you to consider a wide range of elements and/or appropriate steps to test if the suggested changes have resolved the fault. Do consider the order of the tests in your plan too provide:

- a logical structure
- a range of relevant tests
- an understanding of the faults
- explanations of the expected outcomes

Below is an example of headings that can be used on the test plan (check this against the sample assessment to see how these can be based on the information provided) and remember, your structure and layout is important.

There should be a logical structure and flow to the tests proposed in your plan, therefore consider the order of your tests to better convey this logical approach. For example:

1. Ping network devices
2. Release and renew IP address
3. Trace route

The other aspect to include is any relevant tests that would be used to verify that the faults had been rectified, such as being able to access remote files/folders.

Example: test plan (including 2 sample tests)

User's name	Yes, RC	Computer specification and software	Proposed tests	Expected outcomes of tests	Actual outcomes of tests	Diagnosis and actions	Work accepted by user?
Raz Cohen	07/11/2022	Computer A Windows 10	Ping	Pinging successful and verifies connection	As expected, ping successful	Test successful, no actions	Yes, RC
Raz Cohen	07/11/2022	Computer A Windows 10	Release/ renew IP	Resets the IP address and assigned new one from DHCP server.	IP config failed, IP address assigned is not part of the network	DHCP not assigning the IP address, range out of scope	

Help guide/documentation

You will also be asked to provide additional documentation. This could be an annotated control document or a help document. This will be something that provides instructions on resolving an issue.

Below is an example of how you could structure a help guide with different aspects to consider for the different sections.

Purpose

Summary of the purpose of this help guide, for example, 'This help guide is to be used to resolve the network issues caused by ...'

You could include what issues this network problem has caused, for example, 'You may need to refresh your network settings if you have experienced …. '
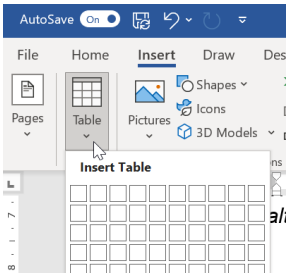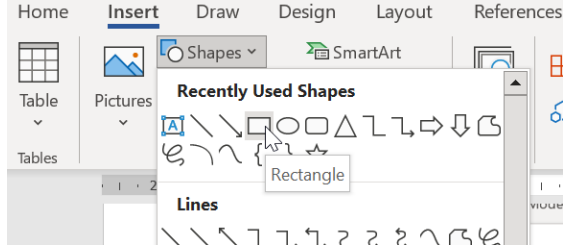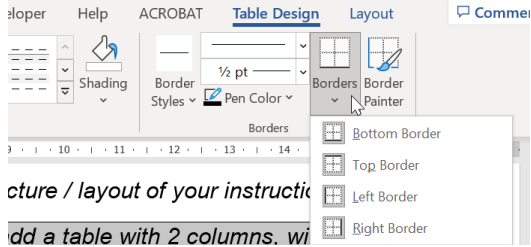
Procedure

You should outline the steps the user needs to take to resolve the issues and consider:

- the structure and layout for ease of use, including subdividing the guide into sections including any pre-checks to perform, for example:
  - check connection to domain
  - check IP address is in range
  - request new IP address
- the use of numbered steps
- the clarity of the instructional step
- the use of screenshots:
  - if aspects of the screenshots need highlighting, or annotation where appropriate

- any limitations with your guide (for example, only suitable for those using Microsoft Windows 10) with alternative instructions and /or support options given

It is not required, but you could make use of a table to help with the structure/layout of your instructions:

	You could add a table with 2 columns, with one column for the instruction and the second column for an image. Or 3 columns with the first being for the step number, then the instruction, then the image.
	You can resize the individual cells and add shapes (with no fill) to highlight certain aspects of the image – such as where to click/input information.
You can change aspects of the table too which might improve the look and useability, such as removing or changing the table borders. And even alternate which column contains the instruction and which contains image.	
You may need to merge cells if there is no image with the instruction step, or perhaps for a closing line such as 'If the issue persists then please contact the IT support team'	

Task skill	How confident are you with this? How would you use it?
Use a troubleshooting framework	

Task skill	How confident are you with this? How would you use it?
Create a test plan	
Create a help document	
Create an annotated instruction sheet	

Task 2: interview

As with task 1, there will be an additional scenario that outlines the requirements for this task. As before, you should read this carefully and pick out any key information (see examples highlighted in yellow below) that might help with your answer.

Task scenario

Now you have resolved the current network issue, your line manager has asked you to investigate the wider problems that are occurring with remote connectivity on the network.

You have been asked to put forward recommendations on resolving the issues, therefore you need to gather information that will help you plan your recommendations.

You organise a meeting with Willow Technology's York network manager to discuss requirements for remote access and better understand the overall network usage and problems. Before the meeting you decide to prepare some questions that will help you gather the appropriate information in the meeting.

> *After your meeting, you must ==update your line manager (technical audience)== and the ==facilities manager (nontechnical audience)== of the York office ==with your findings== by sending them each ==an email.==*

In this task you will prepare questions for a simulated interview with the individual identified in the brief, such as the network manager of the company. The network manager most likely will be played by your tutor and purpose of this interview is allow you to ascertain a better understanding of the fault and to inform your planned solutions.

 You can break this task into 3 sub-headings:

- pre-interview (1 hour):
  - you will prepare questions to ask during the interview
  - you will have access to internet for research purposes
- interview (10 minutes maximum):
  - you'll be interviewing the network manager and making notes
  - this task will also be audio recorded
- post-interview (1 hour):
  - compose 2 emails summarising your findings, one for a technical audience and one for a non-technical audience

This document will provide you with support on preparations and considerations to bear in mind when:

- preparing for the interview
- conducting the interview
- constructing your emails

Interview preparations

These are the main considerations to keep in mind when planning your interview questions:

- the issues being faced
- the current network, systems and specifications
- the requirements of the organisation in the brief

Focus on the above points during the interview and avoid asking or exploring the different solutions that could work, as that will come with task 3.

Break up technical questions into smaller parts

For technical questions consider asking smaller questions. For example, 'tell me about your servers and their operating system' can become:

- how many servers do you have?
- what are the roles of those servers?
- what's the operating system on the servers?

This can serve as a double check for you to see if you are gathering the relevant information. It will allow you more time during the interview to make notes.

Make clever use of your question sheet

Consider creating and adding any relevant fields/tables to your question sheet which can speed up your note taking during the interview, for example:

Computer type	Applications	Operating System	Other info
Domain	Active, DNS, DHCP	Win 2008R2	
File	File and print	Win 2008	
VPN	RRAS using SSTP	Win 2019	Running on spare office desktop PC

Take the lead in the interview

Remember that you are interviewing the network manager and not the other way around, so you may want to begin the interview and provide an overview of the purpose too. For example:

Hello Sasha Melnik, my name is Alex Jensen. Thank you for taking the time to meet me. I just have a few questions to help better understand the problems you're facing, your current set-up and your requirements to help me put an appropriate solution in place.

Show active listening

Don't worry about sticking too rigidly to your questions as you may lose the opportunities to explore options. If there is something that you have not heard, or may have misunderstood, then do speak up; "Would you mind repeating that please?"

Summarising or double checking your understanding is another useful method for showing active listening. This could be used in conjunction with the first tip of using smaller technical questions, as this would allow for a recap at the end to show active listening, such as:

"Can I confirm then that it is 3 servers in total, one domain, one VPN and one file and print sever; and they all have a windows operating system, but not the same version?"

Use some open-ended questions

While it's useful to asked closed questions (questions where the answer would be a short direct answer) for the technical specification queries, you may want use more open questions when discussing the network problems and their requirements. This would allow you more opportunities to explore the issues and demonstrate active listening.

Here is an example of a closed question and an open question:

Closed question: How many staff will need to access the network remotely?

The answer here will be limited, just a number given. This doesn't give much, if any, opportunities for exploring different requirements and determining what's most important.

Open question: What improvements or requirements would you like to see for accessing the network remotely?

This open question will allow for exploration as the answer might include other aspects like managing and controlling the remote network, remote access to files, other remote solutions like cloud storage.

Then you can follow up with more closed question if necessary; "and will remote access be needed for all staff, and in all locations?".

Task skill	How confident are you with this? Have you included both open and closed questions?
Create a list of interview questions based on a set scenario	

Task 2: emails

There are 2 emails to construct which should summarise what you discovered from the interview, such as:

- an overview of the questions asked and what you learned
- explanation of the issues being faced by the organisation
- considerations for the solution

Please note that you do not need to go into detail of the solutions needed. but rather Your answer should focus on the key requirements and needs of the organisation that any solution needs to include.

Both emails will have similar content and should have a suitable layout too, such as:

- having a suitable greeting and introduction
- making good and effective use of paragraphs to break up the information
- correct spelling punctuation and grammar

An aspect that will be different in both emails is the writing style; as one email is for a technical audience (such as your team leader) and the other for a non-technical audience (such as the facilities manager).

Below is a summary of some considerations for both:

Technical audience	Non-technical audience
More informal style usually (for example, if writing to your line manager)	More formal style usually (for example, if writing to an organisation's CEO)
More direct language	More straightforward language
Makes use of technical terms/acronyms	Describes concepts/suitably contextualised with technical jargon avoided

Introduction example	
Hi Jordan, I interviewed the company's network manager today which revealed quite a few issues...	Dear Mrs. Rossi, I hope this email finds you well. I have spoken with your network manager today regarding …
Use of language and terminology	
Their File and Print Server OS is Windows Server 2008 which is now unsupported, so there's a huge security risk from …	The server used for storing files and printing is running on an out-of-date operating system which no longer receives updates. This creates a risk of...

Task skill	How confident are you with this? How have you adapted your language?
Create a response in both technical and non-technical language	

Task 3: project proposal

As with the other tasks, there will be an additional scenario that outlines the requirements for this task. As before, you should read this carefully and pick out any key information (see examples highlighted in yellow below) that might help with your answer.

Task scenario

Following your meeting with the York network manager, you have been provided with a full specification of requirements (control document D) for remote connectivity for remote workers and workers based at the York site by your line manager (technical audience). The York sites will house both permanent members of staff and some remote workers who will require access to network services.

Your line manager has asked you to prepare a project proposal and a network diagram, using the specification of requirements, detailing how you will resolve the connectivity issues identified for the staff located in the York office.

In this task you will be provided with complete details of the requirements (control document), which will contain the same information that the interviewee had in task 2. This is to ensure that the interview doesn't impact your performance on this task, such as if you missed some relevant questions during interview.

You'll have access to the internet to allow you to research and develop an effective solution to the scenario.

Your project proposal should include:

- overview of key problem and solution
- detailed network diagram
- required equipment and costings
- security issues and mitigations
- proposal summary

You may also receive additional information to support the equipment and costings such as this:

When identifying costs, the company usually uses PC World Business and Dell as preferred suppliers. Where possible, these suppliers should be used for all equipment or software recommendations before considering other suppliers.

Project proposal

Your project proposal should have a formal writing style for a technical audience, be comprehensive and highly detailed to demonstrate your understating of the following:

- the network connectivity issues in relation to the brief scenario
- how to address the issues and meet the organisation's needs
- ability to make resource recommendations (for example. software, hardware, services) and consider the costs
- potential cybersecurity issues/risks and how to mitigate these

Making use of different headings for the proposal document can help to support with addressing the above points and below shows an example of how this might work.

Project proposal for new network
Introduction

An overview of the project, purpose and aims. For example:

This is the project proposal for Willow Technology in relation to the current computer provision and problems they are encountering.

The aim of this proposal is to:

- outline the current issues being faced by the organisation
- address the requirements for the new network
- offer and explain our proposed solutions
- include any recommendations for resources and their cost

Current issues identified

- provide a summary of the issues/problems faced and what is causing them
- make use of paragraphs, tables and sub-headings as appropriate to aid the readability, and provide a logical structure to the information
- include any cybersecurity concerns you consider applicable
- use the previous task evidence to support you

Solutions

- outline your solutions with justifications given for the choices made, including any costs
- include cybersecurity/data protection information
- if appropriate, mention any timelines for implementation or any CP D the staff might need

Resources

This could be incorporated into the above section, and includes hardware, software, subscriptions that'll be needed to put the solution in place.

This should also include the costs involved, including one off expenses and ongoing monthly/yearly costs (for example, if a cloud service is being used with an annual fee).

A table might be helpful to better convey the resources, why it's needed and any associated costs. Below is a very simple example but you should consider any other relevant columns for the scenario.

Resource	Purpose	Cost
Google	Cloud service to allow easy access to files from any location without introducing additional infrastructure and resource management.	£4 per TB per month

Don't neglect to determine the overall final costs too and you may need to account for any ongoing expenses such as annual subscriptions. For example:

Total one-off expenses	£
Ongoing annual expenses/subscriptions	£

Initial year 1 costs will be ££££, but thereafter it will only be the ongoing annual subscriptions

Summary

If time allows an overall summary might be useful to highlight the key points and make any final justifications.

Note: you may also be asked to include a network diagram that includes any required information that demonstrates your proposed solution.

Task skill	How confident are you with this? Where have you evidenced this previously?
Create a project proposal	
Include hardware/software recommendations	
Including costings for recommendations made	
Justify your choices	
Create a network diagram to meet requirements	

Task 4: satisfaction survey

As with all other tasks, start by reading the scenario and highlighting key information.

Task scenario

The network upgrade project is nearing its completion and Willow technology ==are considering implementing your proposals.==

==Your line manager (technical audience)== wants you to ==prepare for a post-project review== and ==create a sample satisfaction survey== that could be used ==to test end users'== satisfaction and ==measure if your solution fulfils the desired outcomes.==

For this task you'll have access to the internet, and you'll need to produce:

- an end-user satisfaction survey that could be used to confirm your solution has been effective
- post project review document to include:
  - a brief overview of the key issues presented
  - your identified solution
  - any security concerns you have mitigated
  - a brief evaluation of your own performance, including areas that could be developed or improved in a future project

Satisfaction survey

For the survey, do consider the following:

- using a range of different question types
- professional layout/format
- gather appropriate qualitative and quantitative data
- consider the audience:
  - if it's for the end user then questions should be around the new solution, functionality, ease of use
  - language will usually be for a non-technical audience

Satisfaction survey guidance

Purpose

Brief information about the purpose for this survey, such as "The purpose of this survey is to evaluate the new solution in terms of the ease of use, functionality and any further areas for development".

User details

Consider what relevant information about the person completing the survey would be useful to capture, such as:

- name
- email
- extension number

- department or role
- device used to access the network

Survey questions

Try to use a range of different question types to gather both qualitative and quantitative information, such as:

- yes/no
- multiple choice
- scale
- re-order/priority
- open-ended questions
- close-ended questions

Over the next few pages, we will consider other things elements that will help when you complete you employer set project.

The importance of evaluation in your employer set project (ESP)

Evaluations in your employer set project (ESP)

Evaluation is an important element of the ESP in the T Level qualification. Below are some areas where evaluations are a key component of success.

Evaluation is a key component of both the 'project plan task and 'post project review task.

In the 'project plan' task you need to be able to:

- evaluate the equipment, software or cloud services decisions you make to ensure it meets requirements
- evaluate costs for any equipment, software or cloud services recommended

In the 'post project' review:

- evaluate your own performance, including considering areas that could be developed or improved in a future project

This section covers a range of evaluation examples, use the most appropriate format based on the questions being asked/work being evaluated.

> 'Evaluation is the collection of analysis and interpretation of information about any aspect of a programme of education or training as part of a recognised process of judging its effectiveness, its efficiency and any other outcomes it may have.'
>
> ELLINGTON, H. PERCIVAL, F. RACE, P. (1993): Handbook of Educational Technology. London: Kogan Page

What is evaluation?

The main types of evaluation are:

Process → Impact → Outcome → Summative evaluation
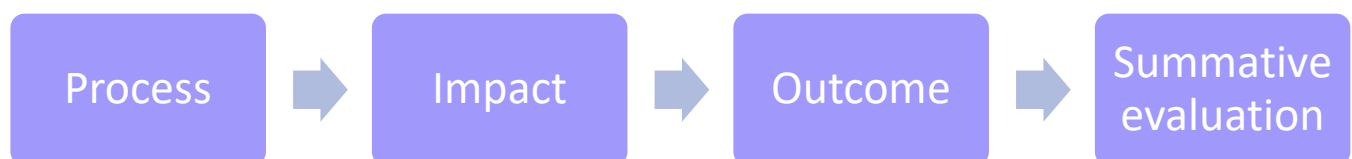
Assessing resources found

Consider the following:

Currency

- the timeliness of the information

Relevance

- the importance of the information for your needs

Authority

- the source of the information

Accuracy

- the reliability, truthfulness and correctness of the information

How to evaluate your own work and others: who, what, where, why and how?

How to evaluate your own work
Where did you gather your research?
What was your topic?
What did the research tell you?
Who have you cited within your work?
Why was it successful/unsuccessful?
How has this informed your work and conclusions?
How can you implement this?

How to evaluate work of others/sources
Where have you gathered your findings? What facts/information have you found? How did you cite the information? What was the impact? What is the key takeaway from the source? How will it inform/conclude about your work? Why was it successful/unsuccessful? What would you change/adapt, and why?

The importance of justification in your employer set project (ESP)

Justification is an important component of the employer set project (ESP) in the T Level qualification. Below are some areas where justifying is a key component of success.

In the project proposal, you need to produce a balanced and well-justified rationale for the selection, prioritisation, and rejection of wide range of solutions providing a balanced and well-justified reasoning for all the equipment, software and clouds services showing that you have considered all options and decided on a solution best for the company based on your research and understanding.
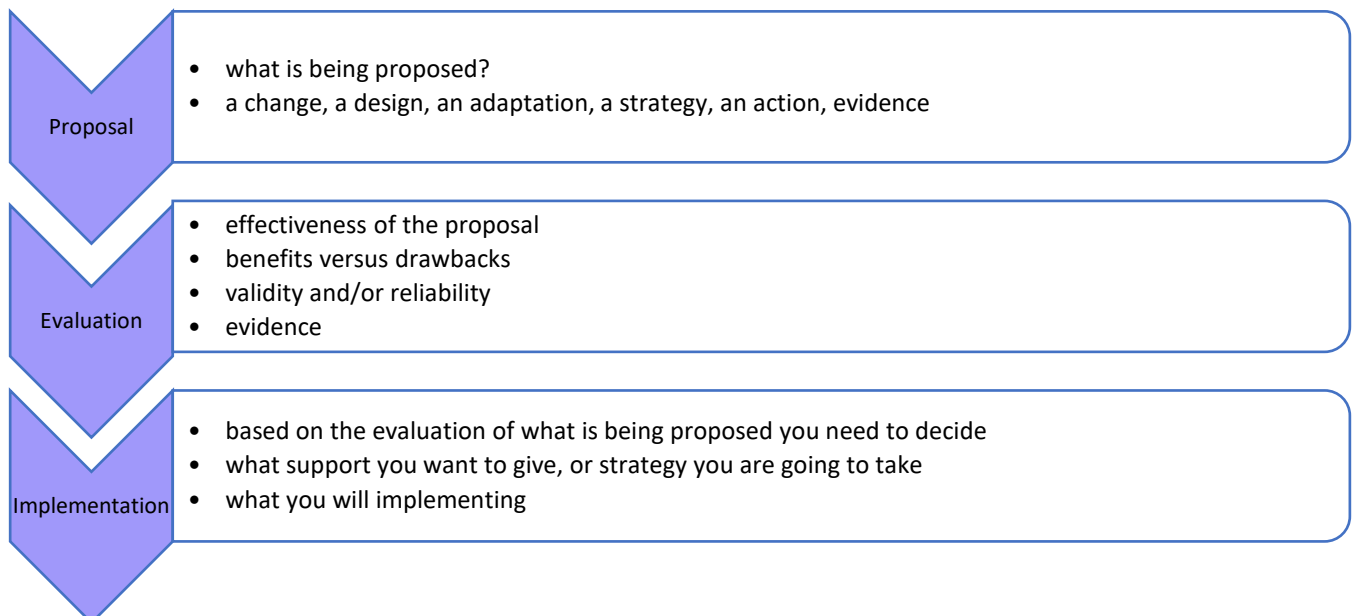
What is justification?

Justification is an important part of your assessment; however, it is also an important part of your professional life. You need to be able to say why you completed each action and your reasoning behind each action, which will then give you the justification of any proposed outcomes.

Justifications are an extension of evaluation. When you evaluate, you weigh up the good and bad, justification is evidencing why something is good or bad.

Justification is also about using evidence to defend what your next actions are, or sound reasoning behind why you are implementing a change.

Justification flow chart

Proposal
- what is being proposed?
- a change, a design, an adaptation, a strategy, an action, evidence

Evaluation
- effectiveness of the proposal
- benefits versus drawbacks
- validity and/or reliability
- evidence

Implementation
- based on the evaluation of what is being proposed you need to decide
- what support you want to give, or strategy you are going to take
- what you will implementing

Notes