



Examiners' Report Lead Examiner Feedback

January 2022

Pearson BTEC L3 Nationals
in Computing (31770H)

Unit 3: Planning and Management of Computing
Projects

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Grade Boundaries

What is a grade boundary?

A grade boundary is where we set the level of achievement required to obtain a certain grade for the externally assessed unit. We set grade boundaries for each grade, at Distinction, Merit and Pass.

Setting grade boundaries

When we set grade boundaries, we look at the performance of every learner who took the external assessment. When we can see the full picture of performance, our experts are then able to decide where best to place the grade boundaries – this means that they decide what the lowest possible mark is for a particular grade.

When our experts set the grade boundaries, they make sure that learners receive grades which reflect their ability. Awarding grade boundaries is conducted to ensure learners achieve the grade they deserve to achieve, irrespective of variation in the external assessment.

Variations in external assessments

Each external assessment we set asks different questions and may assess different parts of the unit content outlined in the specification. It would be unfair to learners if we set the same grade boundaries for each assessment, because then it would not take accessibility into account.

Grade boundaries for this, and all other papers, are on the website via this link:

<http://qualifications.pearson.com/en/support/support-topics/results-certification/grade-boundaries.html>

Awarding BTEC qualifications in 2022

Ofqual has [set out their plans](#) for awarding qualifications in 2022 and intend to return to a normal, pre-pandemic, approach to grading standards over by 2023. They have confirmed that 2022 will be a transition year, to reflect that we are in a pandemic recovery period and students' education has been disrupted.

Our guiding principle and approach to awarding BTEC qualification results in 2022 will be to ensure parity in relation to the approach being taken for GCSE and A level learners. BTEC courses have a different structure and design to academic qualifications - BTECs are modular qualifications (with

assessments taking place throughout the course) compared to GCSEs and A levels which are linear (assessed and awarded at the same time at the end of the year), and therefore our approach needs to be different.

In 2022 we will return to the usual method of calculating BTEC qualification results, however adaptations including, U-TAGs and reduced internal assessment, are in place to provide a comprehensive package of support for students.

The basis of our awarding approach to BTECs this year is to ensure it is as fair as possible for all learners. We will use a range of evidence to set grade boundaries for the external units. Part of this evidence will be to closely monitor learner performance in all assessments that contribute to learners' final qualification grade, to ensure parity with A level and GCSEs.

Further information can be found [on our website](#) and via our Social Media channels.

31770H: Planning and Management of Computing Projects

Grade	Unclassified	Level 3			
		N	P	M	D
Boundary Mark	0	10	21	33	46

Introduction

This was the 7th sitting of this paper and the fifth session in which the assessment was completed January.

This unit is a task-based exam. It is 120 GLH and is a mandatory unit for all learners studying the diploma and the extended diploma with the BTEC L3 Nationals in Computing.

There are two supervised assessment periods, where the externally assessed unit is available in January and June each year. Part A is a maximum of three hours in a one-week period and Part B is a maximum of two hours in a three-day period. Part A involves developing the Project Initiation Document and Gantt chart. Part B includes the checkpoint and email to the client for the project.

The assessment will always contain four sections. Each section is linked to the scenario, where the details of the brief should be used to respond to each section. Each section is broken down into activities, which will test learners on different areas of the specification. Learners are expected to apply their project management knowledge to the scenario.

Learners are given a scenario with additional information to support with their responses. The scenario instructs learners to look at individual parts/sections of the brief during the assessment to answer each activity.

The set task brief may give learners:

- Information about problems that they need to solve.
- Interpret the scenario and apply the solution using Project Management techniques and theory

All Activities of the examination paper provide differentiation at all attainment levels. The assessment is designed to increase in difficulty, with higher grades/marks being provided to learners who employ the required project management skills, knowledge, and understanding for the assessment.

Introduction to the Overall Performance of the Unit

Overall performance of the paper was disappointing, but there are many external factors which have contributed to this namely centres being closed for long periods of time. Also new centres may have come onboard which for the first time may have proved challenging. The brief itself was not more challenging than the last comparable series. Still maintained consistency and no new unpredicted elements were added.

From the papers seen, candidates have performed not so well. Evidence based on marking and feedback from the TL and examiners. Activity 1 has been poor; candidates have produced poor quality work especially the objectives. Clearly don't understand what SMART Objectives are. Other failures are the constraints and assumptions and relating them to the scenario in a lot of cases were irrelevant or far too generic.

As for activity 2 and 3 these seemed to have been consistent with previous papers. Activity 2 Gantt chart and resources were completed better than previous briefs. Candidates used the correct software and produced relatively good charts.

Activity 4 performance was not as good as last year overall. Candidates still not clear on performance management, tended to be confused with description rather than evaluating how they manage the project and process. Lesson learnt was poor and tended to be more evaluation of what they did rather than what they would do differently in future projects, and transferable skills that could be used.

Individual Questions

Activity One

PID & Objectives

Candidates need to show a sufficient understanding; they should complete most PID sections. Transferring information from the scenario to the PID, we would expect this done. They should have attempted the sub-task, such as deliverables, constraints, and stakeholders. It should have relevance to the scenario and not as generic as what was seen in the current cohort.

The objectives are based upon clearly defined project goals and can be broken down further into the component tasks. This helps determine the success factors, which the learner needs to evaluate in activity 4. It is essential to ensure they are 'SMART' objectives. Learners still struggle with this, the example of what could be added.

SMART objective	Achieved?	Date and Comments
Development of the relation database 8 days		7 th February to 16 th February SQL
Development of custom website 10 days		7 th February to 16 th February Junior software
Development of custom app 8 days		7 th February to 16 th February senior software
Installing all desktops 3 days		7 th February to 9 th February junior network
Installing network infrastructure 3 days		7 th February to 9 th February senior network
Install both patient access terminals 5 days		10 th February to 16 th February junior network
Create a plan for hardware testing		10 th February to 14 th February senior network
Build and connect all servers together 4 days		15 th February to 18 th February senior network
Install and set up relational database 4 days		17 th February to 22 nd February senior software
Create a plan for software testing 2 days		17 th February to 18 th February SQL
Integrate the custom website and app 12 days		21 st February to 8 th march SQL
Install and configure server software 8 days		23 rd February to 4 th march Senior developer
Hardware testing 5 days		21 st February to 25 th February senior network
Hardware bug fixing and regression testing		28 th February to 8 th march

The objectives can reflect the Project Lifecycle stages, Analysis, Design, Implementation, Testing, and Evaluation/Review, and then adding relevant information from the scenario. These need to be specific and time-constrained which are relevant to the given procedure. The above candidate has considered all areas using logical chains of reasoning that show full awareness of the given scenario.

Activity 2

Gantt charts should show a graph with tasks, dates and duration, milestones to indicate length and overlaps; however, if they have not allocated resources, this would limit the marks the student can gain. It clearly states in the criteria resources allocated on the Gantt chart. For this cohort, it was completed well.

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names	Cost
1		Project management	25 days	Mon 07/02/22	Fri 11/03/22		Joe PM[20%]	£52,670.00
2		Development phase	22 days	Mon 07/02/22	Tue 08/03/22		2 patient terminals[1],2	£45,080.00
3	★	develop relational database	8 days	Mon 07/02/22	Wed 16/02/22		Suzanne SQL	£1,500.00
4	★	develop custom website	10 days	Mon 07/02/22	Fri 18/02/22		Joseph J.S	£1,500.00
5	★	Develop smartphone app	8 days	Mon 07/02/22	Wed 16/02/22		Aisha S.s	£2,100.00
6	★	installing all desktops	3 days	Mon 07/02/22	Wed 09/02/22		Lewis J.N	£405.00
7	★	install network infrastructure	3 days	Mon 07/02/22	Wed 09/02/22		Tommy S.N	£787.50
8	★	install both patient access terminals	5 days	Thu 10/02/22	Wed 16/02/22		Lewis J.N	£675.00
9	★	test plan for hardware	3 days	Thu 10/02/22	Mon 14/02/22		Tommy S.N	£787.50
10	★	build and connect servers	4 days	Tue 15/02/22	Fri 18/02/22		Tommy S.N	£1,050.00

Here we can see resources and cost have been allocated, though learners may have a separate cost and resources document, the allocation is important to see who doing what and when.



Activity 3

The completion checkpoints. All too often, students wrote the evaluation. Lessons learned are relevant and insightful, showing a thorough understanding of project management concepts” has been met. This section should evaluate progress and performance and should inform what changes they would make to future working practices; the learner has done this by discussing communication issues with the team. Areas that can discuss any problems dealt with, any cost-saving or additional costs, the impact, timings, and the scope of the task have what you set out to be met at his point or is on target.

Lessons Learned

One lesson I learned during the project was to plan out the project before agreeing to the budget and deadline date. This project massively over-ran and was over budget even with all the ways I tried to cut the cost. For future projects I will make sure that before agreeing to these requirements, that I can create a high-quality product with these limitations, as that is the most important factor. It taught me the lesson that sometimes a project can't go perfectly and that improved my negotiation skills as a project manager, due to all the meetings I had with the client and sponsor negotiating and extend deadline and budget.

I also learnt in this project the importance of having external specialist contractors found before the start of the project. If I had looked for contractors during the project's conception phase, I could have found the best emergency contractors for each task of the project, if a remember of my team was unexpectedly absent or behind schedule. This would have saved time once the senior software engineer was confirmed to be busy on another project, as I would have already headhunted a contractor who could do his tasks quickly.

I learned a big lesson about my time management skills over the course of this project. This was a very difficult project to manage due to the limited time of the project, the small team and the complexity of a lot of the tasks. This meant the project did unfortunately over-run, but it taught me a big lesson in how to squeeze a project in to as little time as possible, unfortunately this time no matter how compact I tried to make it, it still ran over. The only way my team could have met the deadline was to sacrifice testing time, but as seen in the issue log the deadline put a lot of stress on my team, and that caused mistakes from them rushing. As a result, I believe we made the right move to keep the testing phase as in-depth as it was, in order to provide the best product even if too was late.

Similarly, to the time management lesson I learned, my management of the budget was another important lesson learned. The project was very difficult considering over half the budget alone was spent on the materials for the project. This meant I had to try and squeeze the budget as much as possible, cutting costs everywhere. However, in order to keep a high-quality product, me and my team decided to not cut down the testing phase it still ran over. The only way my team could have met the deadline was to sacrifice testing time to save money, because as seen in the issue log the deadline put a lot of stress on my team, and that caused mistakes from them rushing. As a result, I believe we made the right move to keep the testing phase as in-depth as it was, in order to provide the best product even if too was over budget.

Activity 4

Success criteria are an “accurate summary of how quality criteria are met showing an awareness of the scenario throughout”. The second part is the review of the project and linking this to the project lifecycle. It doesn’t have to be a sub-heading of each phase but can mention in the report, e.g., during testing.... The third part is the summary of the lesson learned. Utilise the information given in the scenario effectively to provide details of deliverables success, such as the project coming in close to budget. Process success, such as the team’s new system to match the designs, and performance success, such as the project team working together to develop a new high-quality method.

Dear Doctor Tate,

I’m sending you this email to provide you with my feedback of the project, and to explain to you any issues that occurred during the expansion and upgrade of Battleford Doctors’ surgery.

I would firstly like to say I am extremely proud of my team and I believe they all worked to their highest standard from the project’s conception to the handover. This wasn’t an easy project for my team, the restricted budget and deadline date put a lot of stress on the team, which was reflected in some of the mistakes they made due to rushing. But I still would say they worked very hard during this project, especially the junior software engineer who really stood out with making sure the software side of the project was perfect after the senior software engineer was absent. I watched my team take great pride in this project, and unfortunately, I wasn’t able to manage the budget or time effectively enough, I know my team produced a high-quality project that has had no major faults since handover and is performing well.

Time:

This project was very difficult; the very small time frame we were given to finish this project in was almost impossible without sacrificing quality massively. To have reached the original deadline, the testing phase would have had to be cut by roughly 80%. Me and my team had a meeting to discuss this and decided we would rather create a quality product with no major issues, than a faulty product finished with the deadline. In the future as a project manager I will need to put more time into my time management planning, during this project I used a GANTT chart to plan out the project, but it remained a big challenge to keep the project ending in March rather than April. The decision to bring in external specialist contractors helped us to bring the project closer to the deadline after the eight days of delays caused by unfrozen issues. However, these contractors did result in the final cost being even more over budget than estimated originally during the projects conception phase. Overall the time management of the project was something I wasn’t massively happy about during evaluation phase of the project, and I really wish I could have finished on the deadline date, but I couldn’t do that without putting unnecessary stress on my team and creating a poor-quality finished product.

Cost:

The issues with the cost of the project was closely linked to the time management issues me and my team faced. The project was very expensive and the £45,000 budget wasn’t enough when over half of the budget was being spent on materials alone. Using the GANTT chart during the conception phase the project was estimated to cost £51,573.44, over £6,000 more than the budget allowed for. This became a bigger issue when the project experienced eight days delays, and the need for external specialist contractors to come in. These costs kept adding up and it became impossible to hit the budget without sacrificing testing time. To have reached close to the original budget, the testing phase would have had to be cut by roughly 90%. Me and my team had a meeting to discuss this and decided we would rather create a quality product with no major

Summary

PID- Learners need to transfer the essential detail from the scenario to the existing template, useless generic terms for constraint, deliverables and apply a more scenario-based link, they should ensure that they complete the third column justification for either constraint or assumptions.

Objectives, try adding comments giving a good reason for each purpose. It would be helpful to try using fewer generic objectives and more appropriate to the given scenario, try using the overall objectives from the scenario.

Quality Management – Learners should try to understand the different components that make up quality management.

Lesson Learnt - The only way to avoid problems happening yet again in the future is to carefully consider what went wrong this time (and why) and decide what we can do differently next time to avoid those problems. Lessons learned is a process to help identify and transfer such recommendations forward from one team to another.

Email - Learners should in theory seek the views of the people affected by the project. This can include execution of the project based around the project life cycle, the milestones and project objectives. They should evaluate the cycle and its processes, e.g., testing problems encountered and work well etc. For pass we would require some success criteria, and evaluation of the project though basic and maybe unbalanced.



Llywodraeth Cynulliad Cymru
Welsh Assembly Government

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