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An investigation into GCSE Biology learners' perceptions of mock tests as formative assessment to support grade improvement and build confidence

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Abstract
This small-scale practitioner inquiry explored the perceptions of students in the GCSE Biology classroom about the purposes of mock tests within the classroom, i.e. as judgements of ability or as learning opportunities. The study was conducted in a further education college, using a mixed methods design with 17 learners in two re-sit groups of students taking GCSE Biology. Data collection included pre- and post-mock questionnaires that incorporated Likert scale and open-ended questions as well as a semi-structured focus group with six volunteer participants. Based on thematic analysis of the qualitative data and descriptive statistics of the quantitative responses, three learner profiles were discovered: strategic users (35%), anxious avoiders (41%) and passive receivers (24%). Significant higher gains in confidence were observed for learners who were given process level feedback as compared to task level feedback. Examination failure was strongly associated with threat appraisals and disengagement, and examination failure in the past was highly predictive of emotional responses. The findings result in suggestions for systematic feedback literacy instruction, pre-mock preparation activities (such as familiarisation with the mark schemes), and systematic post-mock reflection activities. Implications for practice are embedded feedback time in lessons and co-constructing success criteria prior to assessments.

Keywords: GCSE Biology, mock tests, emotional responses.

1. Introduction

1.1 Context and Rationale

The subject of assessment in education has been a focus of much research over recent decades, especially the difference between summative and formative assessment (Black & Wiliam, 1998; Sadler, 1989;). For students following a General Certificate of Secondary Education (GCSE) Biology course, regular summative assessments are made which feed into progression opportunities and predictions. The use of mock tests as a preparatory device, however, poses an important pedagogical paradox: as a tool used by teachers as formative assessments, these tests are often perceived by learners as a teacher's judgment on their capacity.

My placement was at a further education college offering GCSE Biology to re-sit learners at post-16, having previously failed the GCSE examination, who have a history of negative assessment experiences. I observed that students reacted to the feedback on mock tests in very different ways e.g. some showed greater engagement and critically responded to their identified weaknesses with specific revision. Others showed signs of disengagement, avoidance, and low self-efficacy, effectively choosing to not engage in learning. This variation raised the main question for this investigation: The success of the use of mock tests as a formative process is dependent upon the interpretation and evaluation of the assessment event by students.

This research is based on Sadler's (1989) six conditions for effective formative assessment: 1) know the target goal; 2) know how to compare their current performance with the target goal; 3) know how to close the gap between current performance and the target goal; 4) trust the teacher's feedback; 5) have the opportunity to be graded; and 6) know that the teacher is not the final authority. Hattie and Timperley (2007) extended this framework by considering four types of feedback: task, process, self-regulation, and self. Most importantly, these theoretical models assume of a receptive, agentic learner. Under such conditions, where mock tests are seen more as judgements of ability, than as information about current performance, the conditions become null and void, and it is not the quality of the feedback that matters, but its effect.

1.2 Definitions of Key Terms

Formative assessment described as any assessment activity that provides evidence of learning that can be used to enhance future learning (Black & Wiliam, 1998). In this study, mock tests are potentially formative practice tests conducted exam like conditions with graded feedback; it's the use of the feedback that makes them formative. Student perceptions include cognitive and affective reactions to assessment events such as the perception of purpose, fairness, and usefulness (Brown, 2011). Feedback literacy is about the abilities learners require to access, interpret and respond to feedback information (Carless & Boud, 2018).

2. Significance of the study.

This study is of great importance at various levels. Personally, I can use knowledge of what learners say about mock tests to improve my assessment and feedback skills. At the departmental level, it can lead to rethinking of how evaluation is currently conducted and what it does or does not do. The research further adds to the expanding body of research on student feedback literacy more generally, and more specifically in science education where assessment anxiety is widespread (Putwain & Symes, 2011; Ahmed et al., 2020; Iqbal et al., 2020). The inquiry remains context specific and site specific, yet the thick description of context allows readers to evaluate the transferability to their own context.

3. Review of Literature

3.1. The role of formative assessment in learning and teaching.

Sadler (1989) suggested three criteria for meaningful formative assessment: learners need to have awareness of the target goal, be able to make comparisons, and need to have gap-closing strategies. This implies that the learner is an agent of his learning and is rational towards it, which is doubted by affective research (Pekrun, 2006; Tarar et al., 2021). The 'black box' metaphor of Black and Wiliam (1998) has been criticised for its failure to account for classroom emotions. Torrance (2012) suggests that accountability demands result in 'behavioural reinforcement' instead of real autonomy. In the context of the GCSE, mock tests have two purposes: formative and summative, and this results in an 'assessment identity paradox' for learners.

Many people have misconceptions and misunderstandings about assessment. Brown (2011) has identified four conceptions of assessment which include the following: assessment helps improve learning; assessment holds schools accountable; assessment is irrelevant; assessment is fun. Students who think of assessment as a measure of accountability are less likely to respond to feedback, while students who think of it as a tool for change are more likely to respond to feedback. Putwain and Symes (2011) identified threat appraisals because of high-stakes testing that negatively affect performance for lower-achieving students particularly. In science education, when students view assessments as summative rather than formative, they may develop a learned helplessness attitude which involves them thinking that poor performance in science is due to their lack of ability and not because of their effort or strategy (Dweck, 2006; Bhatti et al., 2021). Feedback uptake models based upon these patterns were confirmed by my observations of disengagement following mock tests, which show that affective responses precede uptake of feedback.

3.2. Feedback and Formative Assessment in Science Education

There are distinctive challenges in using formative assessment in science. Conceptual and procedural knowledge are required in Biology, and misconceptions are hard to correct (Nicol & Boyle, 2003; Abbas et al., 2021). There are analytical concepts which have proven valuable for thinking about feedback, which are included in Hattie and Timperley (2007), the four types of feedback: task, process, self-regulation, self. Process and self-regulation feedback have proved to be very fruitful in terms of learning gains, and self-focused feedback has little effect. Typically, feedback is at the task level, as it is in mock test settings. Henderson et al. (2019) discovered that students were unable to implement the detailed written feedback because there was not enough time, explicit follow-up, or they did not process the feedback into revision strategies. This does not mean that it is a motivational issue, but rather a design issue.

3.3 The Affective Dimension of Assessment

Carless and Boud (2018) define feedback literacy as "appreciating how feedback works, making judgments, managing affect and action taking". Comes with emotional reactions which need to be managed that is disappointment, frustration, relief. Mock tests can consolidate or challenge previous failure for GCSE re-sit learners. In this respect, Pekrun's (2006) control-value theory suggests that low perceived control will result in hopelessness, and valuing achievement but having doubts about competence will lead to anxiety without hope. Therefore, mock test perceptions are emotional experiences that are influenced by previous assessment experiences.

3.4. Research Gaps and Research Contribution

It has been found that formative assessment is successful when there is a learner's perception (Brown, 2011; Chohan et al., 2018) and, that feedback opportunities must be structured (Henderson et al., 2019). There have been few studies that have specifically addressed mock tests in post-16 GCSE Biology re-sit contexts, however. In addition, studies on the influence of past experiences on the perception of mock tests are scarce. This investigation aims to close these gaps and facilitates learner's voices and context-sensitive recommendations.

4. Research Strategy and Data Collection

4.1. Research Approach and Rationale: A mixed methods design was used, with quantitative and qualitative data collected in one small scale practitioner enquiry. The decision to use mixed methods was based on two reasons. First, the research questions included measurable patterns (changes in confidence and agreement with statement scales) as well as complex, context dependent experiences of how feedback is used and emotional responses. Second, the process of practitioner enquiry in the classroom needs to be pragmatic, yielding practical insights that are not too demanding on practitioners or interrupt regular teaching (Cain, 2020).

This study was based on an interpretivist epistemology and not a positivist one. I was not looking for causal laws but for rich contextualised understandings of how specific learners in specific settings see mock tests. This orientation included my dual identity as a teacher, researcher and an understanding that knowledge is co-constructed in dialogue with both the researcher and the participants (Cohen, Manion & Morrison, 2018).

4.2 Research Questions

Following questions explored in the study were:

1. What are GCSE Biology learners' perceptions of mock tests?

3. Are they perceived mock test as a judgment or learning opportunities?
3. Which emotions (anxiety, motivation, confidence) do they relate to the process?
4. How do students take advantage of feedback from the mock tests to further develop their understanding and grade, what strategies do they take and what are the obstacles they face?

4.3 Participants and Sampling

Students were selected from two groups of students in my placement college who were taking GCSE Biology re-sits. A total of 17 learners (77% of the total 22) returned both pre- and post-mock questionnaires. A focus group was conducted with six volunteer participants, identified through maximum variation sampling (Patton, 2015) to provide representation for a range of prior attainment, confidence and apparent engagement with feedback. Eight male and nine female learners (aged 16-18) who had previously passed Grade D or grade 3 in GCSE Biology were selected as the sample. The focus of this purposive approach was on information-rich cases rather than a statistical representativeness.

4.4 Data Collection Instruments

There were three instruments utilised.

4.4.1. Pre-Mock Questionnaire: The pre-mock questionnaire (eight items on Likert scale based on Brown, 2011) was completed one week prior to the mock test, and provided pre-test information regarding confidence, prior experiences and expectations.

4.4.2. Post-Mock Questionnaire: The post-mock questionnaire (Likert scale items for comparison and open-ended questions) was completed within a week of receiving feedback and assessed changes in confidence, usefulness of feedback, and actions taken.

4.4.3. Focus Group: The semi-structured focus group was conducted with six volunteers for 45 minutes, which delved deeper into the concepts discussed in the questionnaires, and this was achieved using prompt topics that included emotional responses, interpretation of feedback, actions taken and suggestions for improvement. Each session was audio recorded and transcribed with permission.

4.5 Validity and Reliability

In interpretative practitioner research, the traditional concepts of validity and reliability must be modified (Lincoln & Guba, 1985). Triangulation (more than one source of data and method), member checking (confirmation of interpretations by all six focus group participants), a reflective journal and thick description (Geertz, 1973) helped to ensure the reliability. The questionnaire items were based on validated instruments and the schedule for the focus group was tested with two volunteer learners.

4.6 Ethical Considerations

The UCL Institute of Education and the placement mentor were the sources of ethical approval. Information sheets provided information about the purpose of the research, the voluntary nature of the research, and data protection. Written consent was obtained. Learner names were withheld and numbers assigned; college identifiers were omitted. All data were collected in a UCL OneDrive folder that was password protected. There was no restriction on withdrawing and no one did. The information sheet was clear that not taking part in the initiative would not impact on grades or classroom relationships. The focus group took place in a non-formal setting in a neutral room with refreshments.

4.7 Research Limitations

The sample was small and rather specific, so that statistical generalisations were not possible. As a teacher-researcher, there was a risk of social desirability bias, which was addressed through triangulation and reflexivity. The focus group might have included a larger proportion of engaged learners than is typical of all learners. The study was conducted at a single time point; a longitudinal study would be required to examine changes over repeated mock test administrations. However, practitioner research is not concerned with generalisability but transferability (Stenhouse, 1975).

5. Research Findings

5.1 Quantitative Findings

Quantitative analysis revealed three main patterns. First, anxiety dominated learner perceptions: 71% felt anxious before the mock test, reducing only slightly to 65% afterwards, while perceptions of mock tests as learning opportunities increased from 29% to 41%. Second, process- level feedback produced a significantly larger confidence gain (+1.4 points on a 5- point scale) than task- level feedback (+0.3 points; Cohen's d = 0.82). Third, feedback utilisation was low: only 35% had a clear action plan, 29% acted on all feedback, and prior GCSE failure significantly reduced feedback action ($\chi^2 = 4.21$, $p < 0.05$).

Table 1: Summary of Quantitative Findings

Measure	Pre-Mock	Post-Mock	Change	Significance
Perceptions				
% anxious	71%	65%	6%	-
% seeing as learning opportunity	29%	41%	12%	-
Confidence gain (5- pt scale)				
Process- level feedback	-	+1.4	-	Cohen's d = 0.82
Task- level feedback	-	+0.3	-	-
Feedback utilisation				
% with clear action plan	-	35%	-	-
% acted on all feedback	-	29%	-	-
Prior failure- less feedback action	-	-	-	$\chi^2 = 4.21$, $p < 0.05$

Table 1 shows that anxiety remained the dominant response to mock tests despite a modest post- test shift towards viewing them as learning opportunities.

Process- level feedback had a large positive effect on confidence (Cohen's d = 0.82), supporting Hattie and Timperley's (2007) feedback framework. However, feedback utilisation was low overall, and prior GCSE failure significantly reduced learners' likelihood of acting on feedback, consistent with Dweck's (2006) learned helplessness and Torrance's (2012) critique of compliance- driven formative assessment.

5.2. The Three Learner Profiles (Qualitative Findings)

Thematic analysis of open-ended questionnaire responses and focus group transcripts (Braun & Clarke, 2006) identified three learner profiles.

5.2.1. Strategic users (35% of sample). These learners perceived mock tests as diagnostic. Sarah explained: *"It's not the real thing, so I try to see where I lost marks and then review those topics. The grade matters less than what it tells me."* They reported manageable anxiety and specific feedback-use strategies. Notably, all had received prior feedback literacy instruction or had supportive family members modelling these approaches.

5.2.2. Anxious avoiders (41% of sample). These learners experienced mock tests as threat events. James stated: "**When I see the grade, I just want to put it away, it reminds me I'm not good enough.**" They reported physical anxiety symptoms (racing heart, poor sleep) and avoidance behaviours (not reading comments, discarding the paper). Some attributed prior failure to fixed ability: "*I'm just not a science person"* consistent with Dweck's (2006) learned helplessness framework.

5.2.3. Passive recipients (24% of sample). These learners neither actively sought nor strategically used feedback. One explained: "I read the feedback, but I don't really know what to do." Another added: "*The teacher tells me to revise these topics, but revise how? I just read the notes again."* They wanted concrete, actionable advice but lacked self-regulation strategies to develop their own action plans.

5.3. Assessment History as a Predictor

Prior failure was overrepresented among anxious avoiders (87% of this group). However, some learners with prior failure became strategic users, indicating that failure alone does not determine perception, emotional interpretation and attributional frameworks mediate the effect. The focus group also found that prior experience with process-focused feedback correlated with strategic users, suggesting that feedback literacy can be developed over time (Carless & Boud, 2018).

5. Discussion

5.1 Interpretation of Findings in Relation to Literature

The results support the previous studies. In line with Brown (2011), the learners had conflicting assessment conceptions, such as the belief that mock tests can enhance learning (endorsing formative purpose) and the perception of institutional responsibility, or accountability (endorsing summative purpose). This paradox was not illogical but was the true nature of mock tests in the GCSE context.

The result of process-level feedback item gained significantly more confidence than task-level feedback directly supports the framework by Hattie and Timperley (2007). Even when process feedback was given, however, only 35% of learners indicated that they had a clear action plan after receiving feedback, suggesting that process feedback was not always received and/or acted upon. This is in line with Henderson et al. (2019) that the effectiveness of feedback is not only a matter of the quality of the feedback, but also of the systems that facilitate the use of feedback.

The three learner profiles (strategic users, anxious avoiders, passive recipients) are alike Pekrun's (2006) control-value theory. Anxious avoiders had a low sense of control and a low value in feedback, resulting in hopelessness. Strategic users felt more control and more value, which meant they had hope and productive actions. Passive recipients seemed to be missing the self-regulation strategies (process knowledge) and not motivation.

Most importantly, the findings suggest that explanations for not engaging with feedback should not be given at the individual level. Anxious avoiders were generally absent from the interaction, though their responses were sometimes linked to systemic issues e.g. *there was not enough time given within the lesson to allow for a feedback response (R1)*, feedback was given in a way that required high literacy skills, and no structure to facilitate follow-up activities. The idea that under accountability systems, the focus on formative assessment would be on behaviour rather than learning was very apparent as learners had "learned to go through the motions" about the uptake of the feedback.

5.2 Validity and Reliability of Findings

There are several reasons for the validity of the results. The three learner profiles came from the questionnaire data and focus group coding, and triangulated: the learner profiles were independent rather than one based on the other. The participant responses during member checking confirmed the participants knew themselves in the participant's descriptions and their peers.

The reflective journal indicated that analysis was not unduly influenced by my expectations (that many of the learners would be 'disengaged'); instead, the finding of the category 'passive recipient' was an unexpected discovery and occurred inductively. The results are presented here as 'generative' and not 'generalisable' due to the research limitations such as small sample, single site and social desirability bias. The consistency with established theory and the rich contextual detail does however lend itself to transferability to similar post-16 re-sit contexts.

6. Conclusions and Recommendations

This investigation has shown that all the students learning GCSE Biology are not in the same boat when reacting to mock tests. Three learner profiles (strategic users, anxious avoiders and passive recipients) offer a more detailed picture than binary distinctions (engaged/disengaged). These profiles are mediated by the emotional response to the experience of failure,

and by experience with feedback literacy instruction, but they are heavily dependent on past assessment experiences. Most importantly, the results indicate that there are three interrelated factors that must be addressed to make mock tests effective: Feedback design (from the task level to the process level and the level of self-regulation), feedback systems (structured time and activities to give feedback), and the teaching of feedback literacy (explicit teaching of how to access, understand, and use feedback). A comprehensive strategy is needed and no one solution will be enough.

Based on these findings, recommendations include differentiated feedback, embedded response time, explicit feedback literacy instruction, pre-mock sharing of criteria and exemplars, and departmental clarification of mock test purpose.

7. Critical Reflection

7.1. Influence of literature on initial intentions. Initially, I assumed a simple causal relationship: better feedback yields better outcomes. Sadler (1989) and Hattie and Timperley (2007) forced me to recognise the need for learners to understand goals, compare performance, and use gap-closing strategies. Brown (2011) sensitised me to contradictory assessment beliefs, and Carless and Boud (2018) shifted my focus to learner feedback literacy not just teacher feedback design.

7.2. How literature warrants my findings. The process-level feedback result directly supports Hattie and Timperley (2007). The three learner profiles extend Pekrun's (2006) control-value theory; the passive recipient profile suggests a skills deficit less explained by affect. Prior failure as a predictor aligns with Putwain and Symes (2011), but the finding that some prior-failure learners became strategic users highlights the mediating role of attribution and prior feedback instruction. Torrance's (2012) critique of behavioural reinforcement is evident in passive compliance.

7.3. Personal learning. I have moved from a transmission model (teacher gives feedback & learner acts) to a co-constructed model requiring explicit feedback literacy instruction. Practitioner enquiry has made me humbler, and more evidence driven. Small-scale research is feasible and valuable for professional learning; I will continue this enquiry cycle by implementing and evaluating the recommendations.

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Appendices

Appendix A: Research Tools
Appendix B: Participant Information Sheet (for learners and parents/carers)
Appendix C: Informed Consent Form (Completed)
Appendix D: Ethics Approval Confirmation (pro forma)
Appendix E: Sample Anonymised Questionnaire Responses (illustrative)
Appendix F: Focus Group Transcript Excerpt (anonymised)
Appendix G: Ethics Approval Confirmation
Appendix H: Recommendations Based on Study Findings
Appendix I: Mentor form to authenticate evidence for assignments

Appendix A: Research Tools

Pre-Mock Questionnaire (Sample Items)

Likert-scale items (Strongly Agree, Agree, Neutral, Disagree Strongly Disagree):

1. Mock tests help me to see what I need to change.
2. Before mock tests, I feel uneasy.
3. Mock tests are primarily about assessing my ability in Biology.
4. The mock tests are good for me to practice in exam conditions.
5. I usually know how to act on feedback I receive from mock tests.
6. I was concerned about mock exams due to my past exam grades.

Open-ended questions:

1. Describe your experience with mock tests, what was helpful and unhelpful.
2. What do you hope to get out of this practice test?
3. What would make you feel more confident prior to the mock test?

Post-Mock Questionnaire (Sample Items)

Likert-scale items (Strongly Agree, Agree, Neutral, Disagree Strongly Disagree):

1. Feedback was useful in enabling me to identify gaps in my understanding.
2. I believe I am now more confident to prepare for the actual exam.
3. I know what to do next due to my feedback.
4. There was a mock test, which was felt to be fair.

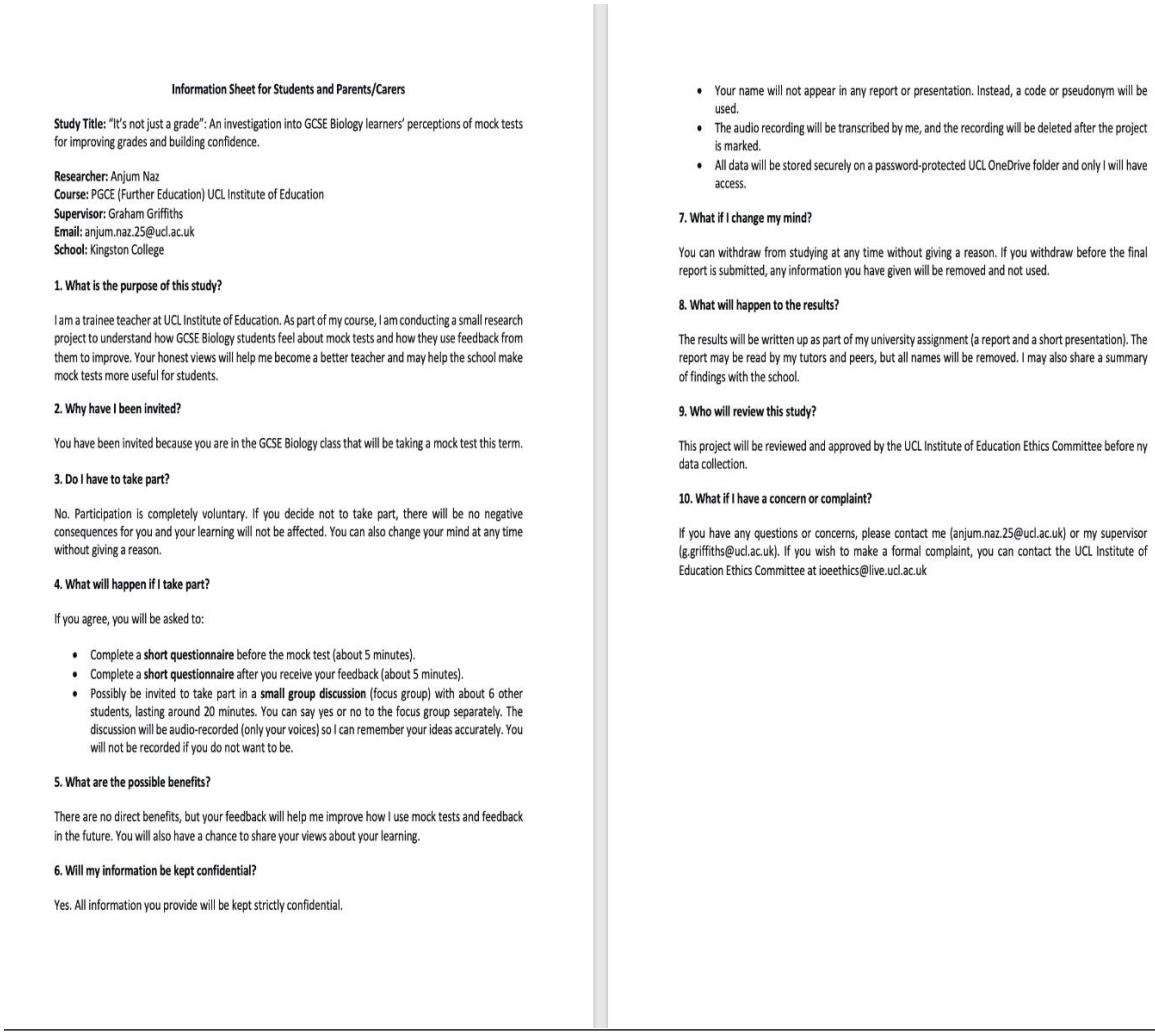
Open-ended questions:

1. What did you do after reading your mock test feedback?
2. What prevented you from making more with the feedback (if anything)?
3. What would your teacher have liked to have done differently to make the mock test more useful?

Focus Group Prompt Schedule

1. **Opening:** Tell me about your experience of this mock test, how did it feel before, during, and after?
2. **Perceptions:** Do you see mock tests mainly as a judgment or mainly as a learning opportunity? (Probe contradictions)
3. **Emotions:** What emotions come up for you around mock tests? Where do you think those come from?
4. **Feedback use:** Tell me about the feedback you received. What did you understand? What did you do? What got on the way?
5. **Improvements:** If you could redesign how mock tests work in this class, what would you change?
6. **Closing:** Is there anything else about mock tests and learning that I should have asked about?

Appendix B: Participant Information Sheet (for learners/parents/carers)



Information Sheet for Students and Parents/Carers

Study Title: "It's not just a grade": An investigation into GCSE Biology learners' perceptions of mock tests for improving grades and building confidence.

Researcher: Anjum Naz
Course: PGCE (Further Education) UCL Institute of Education
Supervisor: Graham Griffiths
Email: anjum.naz.25@ucl.ac.uk
School: Kingston College

1. What is the purpose of this study?

I am a trainee teacher at UCL Institute of Education. As part of my course, I am conducting a small research project to understand how GCSE Biology students feel about mock tests and how they use feedback from them to improve. Your honest views will help me become a better teacher and may help the school make mock tests more useful for students.

2. Why have I been invited?

You have been invited because you are in the GCSE Biology class that will be taking a mock test this term.

3. Do I have to take part?

No. Participation is completely voluntary. If you decide not to take part, there will be no negative consequences for you and your learning will not be affected. You can also change your mind at any time without giving a reason.

4. What will happen if I take part?

If you agree, you will be asked to:

- Complete a **short questionnaire** before the mock test (about 5 minutes).
- Complete a **short questionnaire** after you receive your feedback (about 5 minutes).
- Possibly be invited to take part in a **small group discussion** (focus group) with about 6 other students, lasting around 20 minutes. You can say yes or no to the focus group separately. The discussion will be audio-recorded (only your voices) so I can remember your ideas accurately. You will not be recorded if you do not want to be.

5. What are the possible benefits?

There are no direct benefits, but your feedback will help me improve how I use mock tests and feedback in the future. You will also have a chance to share your views about your learning.

6. Will my information be kept confidential?

Yes. All information you provide will be kept strictly confidential.

- Your name will not appear in any report or presentation. Instead, a code or pseudonym will be used.
- The audio recording will be transcribed by me, and the recording will be deleted after the project is marked.
- All data will be stored securely on a password-protected UCL OneDrive folder and only I will have access.

7. What if I change my mind?

You can withdraw from studying at any time without giving a reason. If you withdraw before the final report is submitted, any information you have given will be removed and not used.

8. What will happen to the results?

The results will be written up as part of my university assignment (a report and a short presentation). The report may be read by my tutors and peers, but all names will be removed. I may also share a summary of findings with the school.

9. Who will review this study?

This project will be reviewed and approved by the UCL Institute of Education Ethics Committee before ny data collection.

10. What if I have a concern or complaint?

If you have any questions or concerns, please contact me (anjum.naz.25@ucl.ac.uk) or my supervisor (g.griffiths@ucl.ac.uk). If you wish to make a formal complaint, you can contact the UCL Institute of Education Ethics Committee at ioeethics@live.ucl.ac.uk

Appendix C: Informed Consent Form (Template)
Student Consent Form
Title of Study: "It's not just a grade": An investigation into GCSE Biology learners' perceptions of mock tests for improving grades and building confidence.
Researcher: Anjum Naz
Please place your initials next to the statements to confirm.**Initials**

1. I have read and understood the information sheet (or it has been explained to me) and have had the chance to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason and without my education or legal rights being affected.

3. I understand that my information will be kept anonymous and confidential. I agree that anonymised quotes may be used in the written report and presentation.
4. I agree to complete the questionnaires.
5. I **am**/am **not** (please circle) interested in taking part in the focus group discussion. If I take part, I understand that the discussion will be audio-recorded and that the recording will be deleted after the project is completed.
6. I agree to participate in this study.

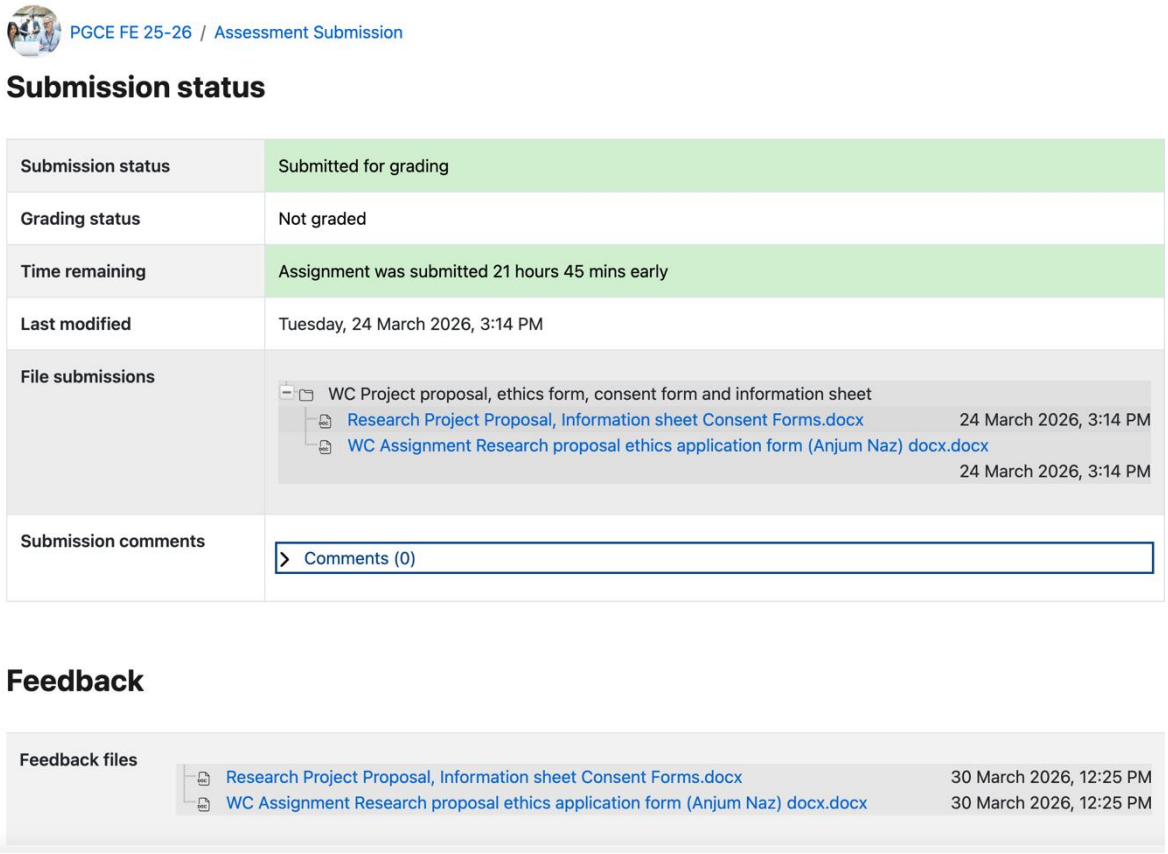
Name of student: _____
Signature: _____
Date: _____
Parent/Carer Consent Form (for students under 18)
Title of Study: "It's not just a grade": An investigation into GCSE Biology learners' perceptions of mock tests for improving grades and building confidence.
Researcher: Anjum Naz
I provide permission for my child, _____ (child's name), to take part in the above study. I have read and understood the information sheet and understand that

- My child's participation is voluntary, and they can withdraw at any time.

- All information will be kept anonymous and confidential.
- My child may be invited to take part in an audio-recorded focus group; this is optional.

Name of parent/carer: _____
Signature: _____
Date: _____

Appendix D: Ethics Approval Confirmation (pro forma)



Appendix E: Sample Anonymised Questionnaire Responses (illustrative)

Table E1: Pre-Mock Questionnaire Responses (Selected Likert Items)

Pseudonym	Profile	Mock tests help me understand what to revise	I feel anxious before mock tests	Mock tests are mainly about judging my ability	I usually know how to act on feedback
Sarah	Strategic user	5	3	2	4
Aisha	Strategic user	4	3	2	4
James	Anxious avoider	2	5	5	2
Daniel	Anxious avoider	2	5	5	1
Maria	Passive recipient	3	4	3	2
Tom	Passive recipient	3	4	3	2

Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Table E2: Post-Mock Questionnaire Responses (Selected Likert Items)

Pseudonym	Profile	The feedback helped me understand my gaps	I feel more confident now	I have a clear plan for what to do next	I acted on all the feedback I received
Sarah	Strategic user	5	4	5	4
Aisha	Strategic user	4	4	4	4
James	Anxious avoider	2	1	1	1
Daniel	Anxious avoider	2	1	1	1
Maria	Passive recipient	3	2	2	2
Tom	Passive recipient	3	2	2	2

Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Table E3: Sample Open-Ended Responses (Pre-Mock Questionnaire)

Pseudonym	Profile	Describe a previous experience with mock tests – what was helpful or unhelpful?	What are you hoping to learn from this mock test?
Sarah	Strategic user	"The feedback helped me focus my revision, but I wished I had more time to act on it before the real exam."	"Which topics I need to revise more and which exam techniques I need to practise."
James	Anxious avoider	"I just felt rubbish after seeing the grade. I didn't even read the comments."	"I'm just hoping to pass this time. I don't want to feel stupid again."
Maria	Passive recipient	"The teacher wrote lots of comments, but I wasn't sure what to do with them."	"I want to understand what the examiner is looking for."

Table E4: Sample Open-Ended Responses (Post-Mock Questionnaire
Table E5 Appendix E: Anonymised Sample Data

Table 1: Pre- and Post-Mock Likert Responses (Selected Items, n=17)

Statement	Pre-agree %	Post-agree %
Mock tests help me understand what to revise	65%	71%
I feel anxious before mock tests	71%	65%
Mock tests are mainly about judging my ability	59%	53%
I have a clear plan for what to do next based on feedback	N/A	35%

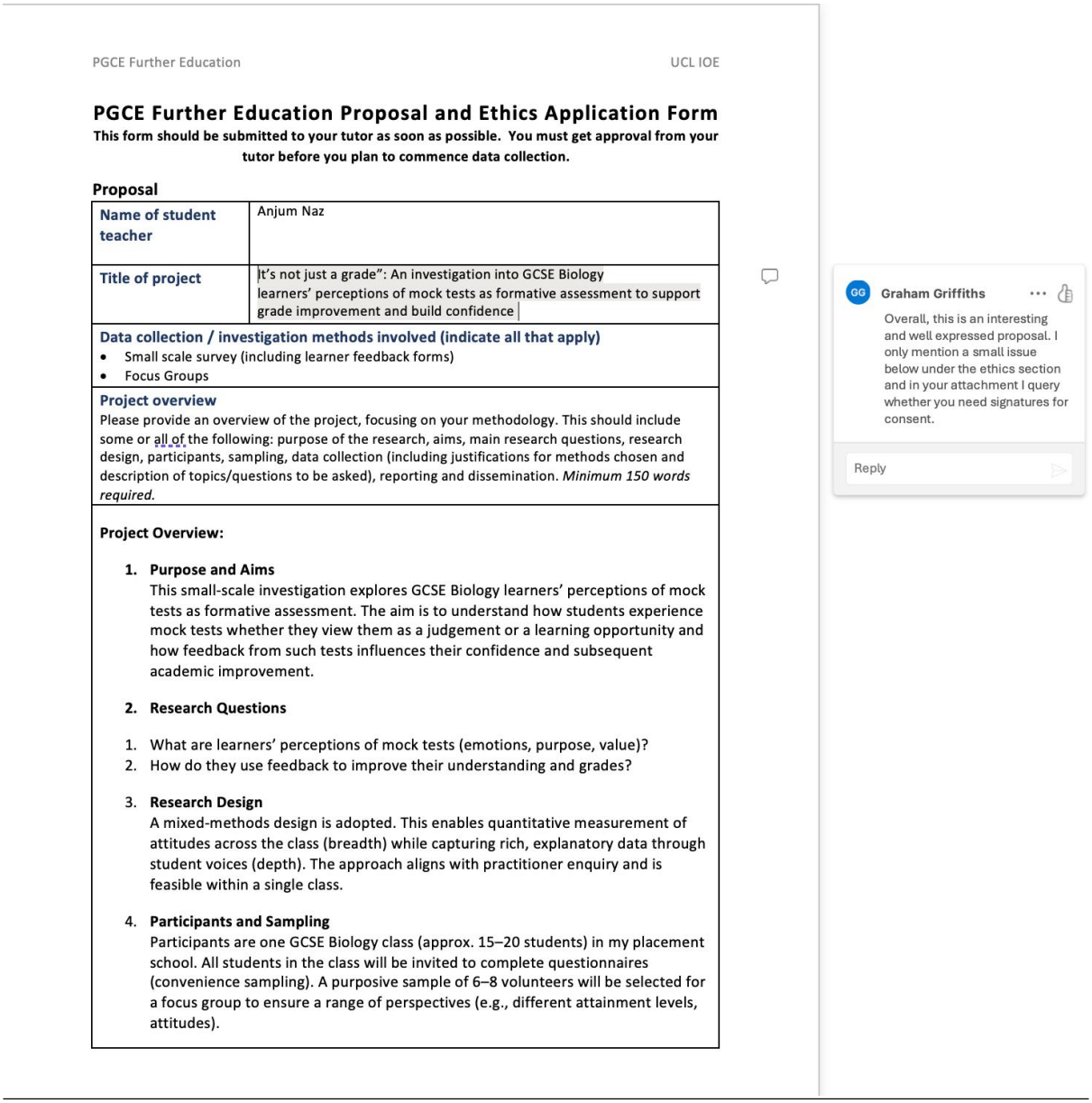
Table 2: Learner Profile Distribution

Profile	Count	Percentage
Strategic users	6	35%
Anxious avoiders	7	41%
Passive recipients	4	24%

Appendix F: Focus Group Transcript Excerpt (anonymised)

Interviewer: "Do you see mock tests mainly as a judgment or mainly as a learning opportunity?"
James (anxious avoider): "Judgment. Definitely. Because the teacher gives a grade, and then you compare with everyone else. Even if she says it's just practice, you know it goes on the report."
Sarah (strategic user): "I see both. It is a judgment, but it's a judgment about where I am now, not where I'll be in the real exam. I use the grade to see if my revision worked."
Maria (passive recipient): "I want to see it as learning, but I don't always know what to do after. The feedback says 'revise enzymes' but revise how? I just read the page again."

Appendix G: Ethics Approval Confirmation (pro forma)



PGCE Further Education UCL IOE

PGCE Further Education Proposal and Ethics Application Form

This form should be submitted to your tutor as soon as possible. You must get approval from your tutor before you plan to commence data collection.

Proposal

Name of student teacher	Anjum Naz
Title of project	It's not just a grade": An investigation into GCSE Biology learners' perceptions of mock tests as formative assessment to support grade improvement and build confidence

Data collection / investigation methods involved (indicate all that apply)

- Small scale survey (including learner feedback forms)
- Focus Groups

Project overview

Please provide an overview of the project, focusing on your methodology. This should include some or all of the following: purpose of the research, aims, main research questions, research design, participants, sampling, data collection (including justifications for methods chosen and description of topics/questions to be asked), reporting and dissemination. *Minimum 150 words required.*

Project Overview:

1. **Purpose and Aims**
   This small-scale investigation explores GCSE Biology learners' perceptions of mock tests as formative assessment. The aim is to understand how students experience mock tests whether they view them as a judgement or a learning opportunity and how feedback from such tests influences their confidence and subsequent academic improvement.

2. **Research Questions**

1. What are learners' perceptions of mock tests (emotions, purpose, value)?
2. How do they use feedback to improve their understanding and grades?

3. **Research Design**
   A mixed-methods design is adopted. This enables quantitative measurement of attitudes across the class (breadth) while capturing rich, explanatory data through student voices (depth). The approach aligns with practitioner enquiry and is feasible within a single class.

4. **Participants and Sampling**
   Participants are one GCSE Biology class (approx. 15–20 students) in my placement school. All students in the class will be invited to complete questionnaires (convenience sampling). A purposive sample of 6–8 volunteers will be selected for a focus group to ensure a range of perspectives (e.g., different attainment levels, attitudes).

GG **Graham Griffiths**

Overall, this is an interesting and well expressed proposal. I only mention a small issue below under the ethics section and in your attachment I query whether you need signatures for consent.

Reply

PGCE Further Education UCL IOE

5. **Data Collection**

- **Pre- and post-mock questionnaires**: Likert-scale items measure confidence, perceptions of usefulness, and intended/actual use of feedback. Open-ended questions capture individual strategies and suggestions.
- **Semi-structured focus group**: Conducted after feedback is returned. Prompts explore emotional responses, how feedback was interpreted, barriers to acting on it, and ideas for improvement.

These methods are justified because questionnaires provide accessible, comparable data from the whole class, while focus groups allow deeper exploration of the *reasons* behind patterns essential for understanding perceptions.

6. **Reporting and Dissemination**
   Findings will be presented in a written report (with anonymised quotes and summary charts). Recommendations for practice will be shared with my placement department to inform future use of mock tests.

Draft timeline

Indicate in the grid below, by shading blocks, the timescale you intend to undertake various activities. The blocks can overlap.

Activity	Dec	Jan	Feb	Mar	Apr	May	Jun
Literature review				X			
Designing methods				X			
Data collection					X		
Analysis of data					X		
Writing report					X	X	
Draft submission							
Final submission							

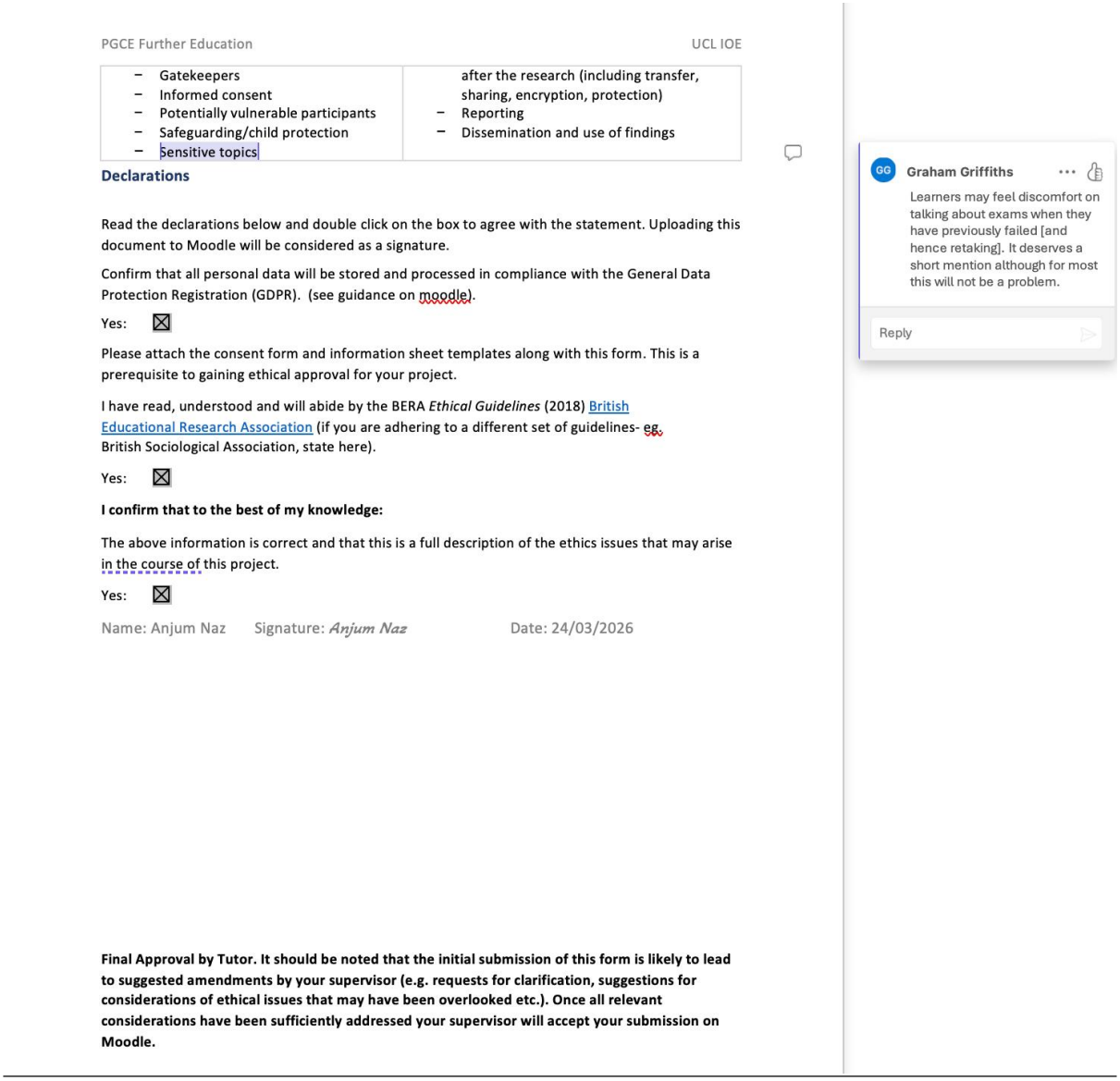
Ethical considerations

It is a feature of educational investigations that there will be particular features of the proposed work which may raise ethical concerns or add to the complexity of ethical decision making. Please outline how you will deal with these.

It is important that you demonstrate your awareness of potential risks or harm that may arise as a result of your research. You should then demonstrate that you have considered ways to minimise the likelihood and impact of each potential harm that you have identified. Please be as specific as possible in describing the ethical issues you will have to address. Please consider / address ALL issues that may apply.

Ethical concerns may include, but not be limited to, the following areas (you must comment on: informed consent, confidentiality / anonymity and data storage as a minimum):

- Methods
- Sampling
- Recruitment
- Risks to participants and/or researchers
- Confidentiality/Anonymity
- Disclosures/limits to confidentiality
- Data storage and security both during and



PGCE Further Education UCL IOE

– Gatekeepers – Informed consent – Potentially vulnerable participants – Safeguarding/child protection – Sensitive topics	after the research (including transfer, sharing, encryption, protection) – Reporting – Dissemination and use of findings

Declarations

Read the declarations below and double click on the box to agree with the statement. Uploading this document to Moodle will be considered as a signature.

Confirm that all personal data will be stored and processed in compliance with the General Data Protection Registration (GDPR). (see guidance on moodle).

Yes: ☒

Please attach the consent form and information sheet templates along with this form. This is a prerequisite to gaining ethical approval for your project.

I have read, understood and will abide by the BERA *Ethical Guidelines* (2018) British Educational Research Association (if you are adhering to a different set of guidelines- eg. British Sociological Association, state here).

Yes: ☒

I confirm that to the best of my knowledge:

The above information is correct and that this is a full description of the ethics issues that may arise in the course of this project.

Yes: ☒

Name: Anjum Naz Signature: *Anjum Naz* Date: 24/03/2026

Final Approval by Tutor. It should be noted that the initial submission of this form is likely to lead to suggested amendments by your supervisor (e.g. requests for clarification, suggestions for considerations of ethical issues that may have been overlooked etc.). Once all relevant considerations have been sufficiently addressed your supervisor will accept your submission on Moodle.

Appendix H: Research Study Recommendations

Based on the research findings, recommendations are as follows;

a) Differentiated feedback is crucial for all three categories e.g. for anxious avoiders: ungraded process feedback and 1:1 coaching, for passive recipient's action templates and for strategic users, extension tasks and challenges would be effective.
b) Provide simplified mark schemes and anonymised exemplar answers at different quality levels to clarify target goals (Sadler, 1989) pre-mock.
c) Feedback literacy teaching would be useful e.g. a 30-minute pre-mock lesson on feedback literacy in which they learn about the different types of feedback, how to manage emotional responses to feedback and how to develop an action plan for feedback (Carless & Boud, 2018).
d) Incorporate sufficient feedback response time approx. 20 minutes of protected lesson time following mock tests for action planning (priorities, revision actions and seeking clarification).
e) Departments need to review the purpose of mock test either diagnostic, prediction or both and that the learner is made aware of what the purpose is and why to minimise "hidden agendas".

Appendix I Mentor form to authenticate evidence for assignment

Mentor form to authenticate evidence for assignments

To be completed by the student teacher:

Student teacher name	Module	Indicate which module below
Anjum Naz	Learning, Teaching and Assessment	
	Wider Context of Educational Practice	X
Description of teaching provision / course / individual(s) [do not use learner names]	GCSE -2025-2026 session, (Biology) Resit group A & B (16-18 Group)	
List of evidence submitted in Appendix	**List of Appendices** **Appendix A:** Research Tools **Appendix B:** Participant Information Sheet (for learners and parents/carers) **Appendix C**: Informed Consent Form (Completed) **Appendix D:** Ethics Approval Confirmation (pro forma) **Appendix E:** Sample Anonymised Questionnaire Responses (illustrative) **Appendix F:** Focus Group Transcript Excerpt (anonymised) **Appendix G:** Recommendations Based on Study Findings **Appendix H:** Mentor form to authenticate evidence for assignments	

To be completed by the placement mentor: check the statements and complete the form to authenticate the evidence.

a) I can confirm that the student teacher did contribute to the teaching of the provision / course / individual(s) noted above b) I can confirm that I have seen the evidence presented and can confirm that this relates to the teaching practices of the student teacher	
Placement mentor name	Kanta Sharma
Date	01/06/2026
Signature	Kanta Sharma

Student teacher to scan / take picture and add to the assignment Appendix.