Stage 1 Scientific Studies

Assessment Type 2: Collaborative Investigation

From the subject outline:

Students individually evaluate the collaborative inquiry, in the style of a pitch, defence, or justification.

This evaluation should include:

* a summary of the design and hypothesis
* an evaluation of the procedures and results/outcome
* an evaluation of the effectiveness of collaboration and its impact on results/outcomes
* a conclusion with justification and the consideration of possible limitations.

*For a 10-credit subject*, the pitch, defence, or justification should be a maximum of 3 minutes per student if oral or the equivalent if multimodal.

*For a 20 credit subject*, the pitch, defence, or justification should be either a maximum of 3 minutes per student for each of two shorter collaborative inquiries, or a maximum of 5 minutes per student for one longer collaborative inquiry if oral or the equivalent if multimodal.

**Guidelines**

*The following guidelines may be useful in the preparation of the student’s pitch, defence, or justification. Please note that these are guidelines only. Students are not required to address every dot point and may include other relevant aspects.*

* Summary of design and hypothesis /proposed solution

This includes a brief statement to give an overview of the investigation:

* The problem
* Process used (scientific method/engineering design)
* Outline of the hypothesis and method or design features
* Evaluation of procedures and results/outcome

This includes for:

Scientific method

* Control of variables
* Sources of uncertainty
* Effect on data

Engineering design

* Reflect on model testing
* Adjustment to models
* Effectiveness of testing procedure
* Evaluation of effectiveness of collaboration (IAE5)

Some of the following pointers may be considered by students when preparing for the evaluation of the effectiveness of collaboration and its impact on results/outcomes in the Collaborative Inquiry.

Communication within the group such as:

* Communication during and between meetings
* Record keeping
* Positivity

Leadership and involvement, such as:

* Leadership model
* Inclusive
* Contribution to the outcome

Collaborative Processes such as:

* Decision making
* Goal setting
* Action plan
* Task allocation
* Shared responsibilities
* Opportunity for ‘way out’ thinking
* Democratic
* Evidence based
* Risk taking
* Problem solving
* Check points
* Finalisation

Deadlines

* Setting mile stones/targets
* Adjusting deadlines

Conflict resolution

* Interpersonal
* Project related
* Conclusion with justification and possible limitations

This includes:

Scientific Method

* Results support/rejects hypothesis – reasons
* How widely can conclusion be applied? – reasons
* Explanation for possible ‘failure’

Engineering design

* Effectiveness of final model -reasons
* Limitations of model- reasons
* Explanation for possible ‘failure’
* Future direction for the model.