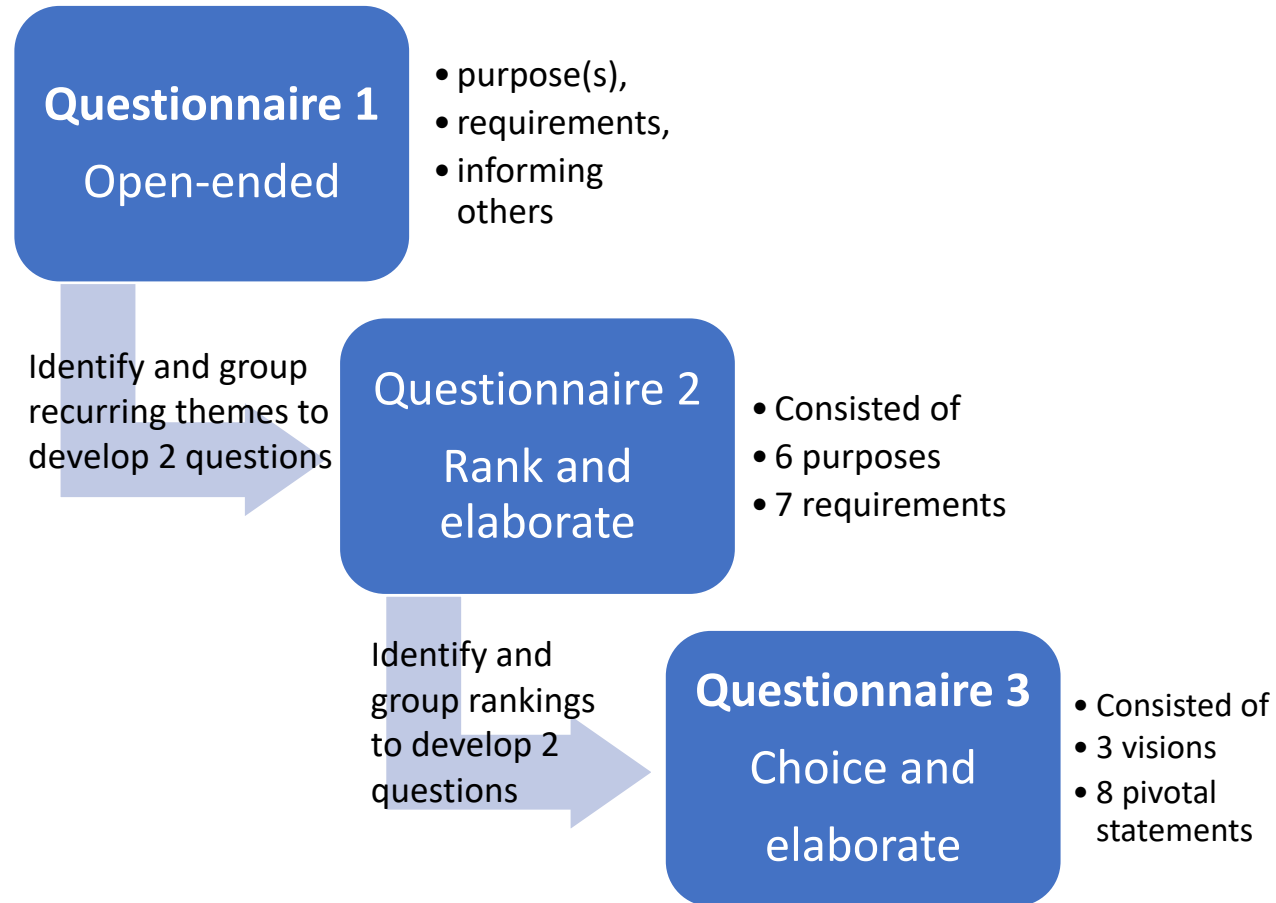


The background of the slide is a photograph of a coastal cove. The cove is formed by two high, layered rock cliffs that meet at a narrow opening. The water inside the cove is a deep blue, while the water further out is a lighter, turquoise color. The sky is a clear, bright blue. The foreground shows some green shrubs and a dirt path leading towards the cove.

The Application of a Delphi Study to navigate safe passage through STEM Education research

Deakin University
CAR Symposium
November 2018

Constructing the questionnaires



Questionnaire 1

Question 1

- *What do you believe is the purpose(s) of 'STEM Education'?*

Question 2

- *Given the purpose(s) of STEM Education you identified in Q1 what is necessary/required to achieve/implement this purpose(s)?*

Using responses to construct Question 1 on Questionnaire 2

Themes from Q1 q1

- Solve real world problems
- Developing a skilled workforce
- Prosperity



Purpose STEM Education

equip people with the **knowledge and skills** necessary to drive **economic and social prosperity** in the **21st Century** technology rich workplaces and careers.

Using responses to construct Question2 on Questionnaire 2

Theme from Q2 q2

authentic teaching and learning and assessment that draws knowledge from across the STEM subjects



Requirement for STEM Education

Use of age appropriate applied investigations and activities to demonstrate how knowledge and skills from multiple disciplines to solve problems

Questionnaire 2

Question 1

Please rank the statements from 1 to 6 where 1 is the most important for you and 6 is least important for you.

The purpose of STEM Education is to ...

Question 2

What level of priority, if any from 1 (highest) to 5 (lowest), would you assign to each one? Space has been provided for you to elaborate on your responses.

Using responses to construct Question 1 for Questionnaire 3

Ranking of purposes Q2 q1

equip young people with skills
to drive economic and social
prosperity in technology rich
workplaces and careers

+

Enable young people to
contribute to their
community



Visions for STEM education

STEM Education provides the
skills that enable all **young
people** to contribute to
growing the nation's **economy**
and **global competitiveness**.

Using responses to construct Question 2 on Questionnaire 3

Ranking of requirements q2

building community
understanding of the
relationship between STEM
subjects and future
employment



Pivotal statements

informed communities
actively support young people
to consider pursuing STEM
subjects, careers or
employment.

Questionnaire 3

Question 1

Which vision best aligns with YOUR preferred vision for STEM Education in the Australian context?

Question 2

To complete this sentence please tick up to three of the statements listed below and provide reason(s) for your choice.

In addition to the three selected, a space has been provided for you to construct your own statement if required.

Delphi study findings

1. Fluid alignment of participants around particular areas or issues (Q1)
2. Focus on relationship between student understanding and engagement and, relevance of examples used to develop skills (Q2)
3. One vision preferred but reasons (pivotal statements) for preference varied. (Q3)
4. Consistency of focus on the education of young people (overall)

Where to next?

Thank you

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