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The solution room: Optimisation of primary research for Senior Health



Dr Hugh Shannon

Senior Lecturer HPE, Queensland University of Technology Board Member, ACHPER Queensland

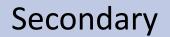


Overview

- 1. Primary & secondary research
- 2. Senior Health: Systematic primary research processes
- 3. Health Inquiry Model & primary research data
- 4. Senior syllabus skill sets, data literacy & a need for optimisation
- 5. Examples of challenges, reflective thinking & prioritisation
- 6. The solution room

Primary & secondary research

Some schools utilise legacy data



- Existing information
- Original analysis completed by others

Primary

- Original data
- Students as researchers

 (ethics, applied methods, analysis & reporting)



adapted for scientific method The

research

What do we want to investigate?

1. OBSERVATIONS

What do we want to know?

2. RESEARCH QUESTION(S)

What is already known?

3. BACKGROUND RESEARCH

Proposed explanation based on preliminary evidence

4. HYPOTHESIS

How will the research be conducted? What primary data will be collected?

5. METHOD (research design & ethics)

How will the quantitative and/or qualitative data be managed?

6. DATA COLLECTION

Does the data support the hypothesis? What conclusions can be drawn?

7. DATA ANALYSIS & CONCLUSIONS

What are the key findings, strengths and limitations of the investigation? How will the findings inform future research?

8. REPORT RESULTS

Systematic processes

How do your students currently utilise primary data within the HIM?

Health General Senior Syllabus 2019 v1.2

Summary map

COURSE STRUCTURE Topics (underlined) & health contexts (bold)

healthy living

healthy living

Resilience as a personal health resource

Respectful relationships in the post-schooling transition

Peers & family as resources for

Community as a resource for

OVERARCHING APPROACHES¹, FRAMEWORKS² & RESOURCES³

- Salutogenic Model of Health¹ (Antonovsky) & Strengths-based approach¹
- Determinants of Health² (AIHW Conceptual Framework)
- Ottawa Charter for Health Promotion Enable, Mediate & Advocate² (World Health Organization)
- Framework for Health Promotion Action² (Murphy & Keleher)
- Health Literacy Functional, Interactive & Critical³ (Nutbeam)
- Social Justice Framework Equity, Diversity & Supportive Environments3







HEALTH INQUIRY MODEL

Seminal work (bracketed)

| Stage 1: Define & Understand | Stage 2: Plan & Act | Stage 3: Evaluate & Reflect |
|---|--|-----------------------------------|
| Positive Psychology PERMA+ (Seligman) | Ottawa Charter for Health Promotion – Action areas: DPS, CSE, SCA, RHS & BHPP (World Health Organization) | |
| Social Cognitive Theory (Bandura) | | RE-AIM (Glasgow, Boles & Vogt) |
| Social Ecological Model (Bronfenbrenner) | Diffusion of Innovation Theory (Rogers) | |
| Life Course Theory (Elder) | | |

ASSESSMENT

*Suggested formative assessment techniques (1 - 2 assessments required per formative unit)

| | FORMATIVE | *FA1 Investigation – Analytical Exposition *FA2 Examination |
|--|-----------|---|
| | | *FA3 Investigation – Action Research *FA4 Examination |
| | SUMMATIVE | IA1 Investigation – Action Research (25%) IA2 Examination – Extended Response (25%) |
| | | IA3 Investigation – Analytical Exposition (25%) EA Examination (25%) |













Community and social resources

Ease

Dis-ease

Elective topic 1: Alcohol

· Elective topic 2: Body image

· Elective topic 1: Homelessness

• Elective topic 2: Road safety

· Elective topic 3: Anxiety













Senior syllabuses – Three skill sets

1.2.2 Underpinning factors

There are three skill sets that underpin senior syllabuses and are essential for defining the distinctive nature of subjects:

- literacy the set of knowledge and skills about language and texts essential for understanding and conveying Health content
- numeracy the knowledge, skills, behaviours and dispositions that students need to use
 mathematics in a wide range of situations, to recognise and understand the role of
 mathematics in the world and to develop the dispositions and capacities to use mathematical
 knowledge and skills purposefully
- 21st century skills the attributes and skills students need to prepare them for higher education, work and engagement in a complex and rapidly changing world.

- Health provides a valuable opportunity for authentic learning and development of all skill sets
- What are the strengths of your cohorts?

Syllabus extract: QCAA Health 2019 General Senior Syllabus v1.2 (p.6) https://www.qcaa.qld.edu.au/downloads/senior-qce/syllabuses/snr health 19 syll.pdf

Data literacy

Inquiry driven **primary** research commands a range of planning, management, analytical and communication skills.

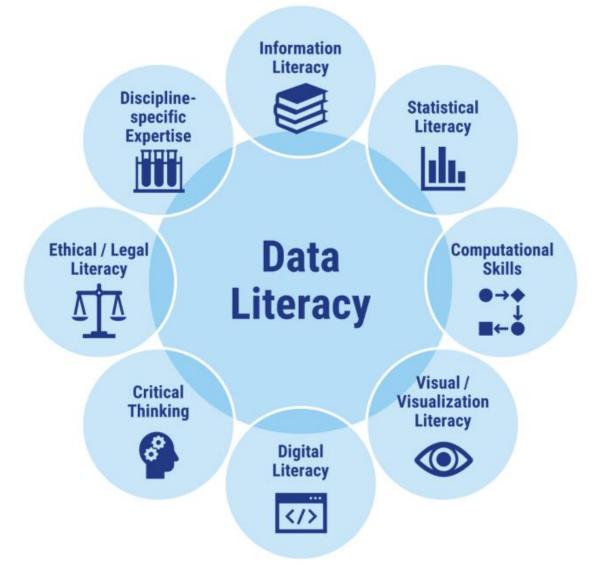


Diagram source: https://www.dataliteracy.uni-jena.de/en/what-is-data-literacy

Optimisation

- Process efficiencies
- Improving effectiveness

What industries or professions have a strong focus on optimisation?



Qualitative data coding Examples of challenges Literacy & Qualitative numeracy selfthematic analysis efficacy "This seems like a lot of Quantitative data Motivation/effort (e.g. Excel work!" investment formulas: mean "We've worked "I'm not a so hard on this... numbers why won't they person!" complete our questionnaire?" Project scope & Low response **Confirmation bias** is the tendency to search for, interpret and recall information in a Ethical considerations High attrition rate way that supports what (informed (time series data) we already believe. consent) Infographic source: https://newslit.org/tips-tools/dont-let-confirmation-bias-narrow-your-perspective/ Data instrument Reporting data & items with confirmation bias multiple constructs Determining

sample size



Individual reflective task

- What do your students find most challenging about primary research and data analysis?
- What opportunities exist for optimisation?

Consider your context & student cohorts:

- 1. Develop a list
- 2. Select your top three priorities
- 3. Rank them



Small group task

- Form groups of 6-8
- Introductions, take turns to share first priorities and collectively discuss ideas and solutions
- Record group discussion points on the A3 sheet provided
- Unresolved challenges (no solution) are to be listed at the bottom

| G | the university for the real world | |
|---|---|-----------------|
| • | Repeat the process until all have spoken and as many challenges as possible have been discussed | UNRESOLVED CHAI |
| • | If your selected challenge has been discussed already, only revisit if context/circumstances are different → Move to the next priority on your list | |

| The solution room: Optimisation of primary research for Senior Health | | | | |
|---|-------------------|--|--|--|
| CHALLENGES / OPTIMISATION OPPORTUNITIES | IDEAS / SOLUTIONS | | | |
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The solution room

- Spokesperson for each small group...
 - briefly reports one or two good ideas/solutions
 - seeks ideas/solutions for unresolved challenges from other groups
- Subsequent groups: don't repeat, add new perspective if beneficial
- At the conclusion of the task, freely circulate to check other group sheets (take photos)

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|---|-------------------|--|--|
| CHALLENGES / OPTIMISATION OPPORTUNITIES | IDEAS / SOLUTIONS | | |
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| UNRESOLVEI | D CHALLENGES | | |
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Thank you



Thank you for your contribution to the solution room today! I hope the session was beneficial for you.

Contact details

Dr Hugh Shannon

HPE Senior Lecturer – Queensland University of Technology



Email h.shannon@qut.edu.au

Phone +61 7 3138 3577



@Hugh_Shannon



au.linkedin.com/pub/hugh-shannon/65/a61/791/

Further questions?

