

Synthesis Canvas

DESN2003: Research for Innovation

Synthesis Canvas — Blank Template

Your Name: _____ Date: _____

Research Question: _____

1. What Data Do You Have?

| Data Type | Source | Volume |
|--------------|--------|---|
| Qualitative | _____ | _____ interviews / _____ pages of notes |
| Quantitative | _____ | n = _____ responses |
| Other | _____ | _____ |

2. Qualitative Synthesis: From Quotes to Themes

Step 1: Pull Key Quotes (List 5-10 powerful quotes from your data)

| Quote | Who Said It | Initial Code |
|-----------|-------------|--------------|
| “ _____ ” | P _____ | _____ |
| “ _____ ” | P _____ | _____ |
| “ _____ ” | P _____ | _____ |
| “ _____ ” | P _____ | _____ |
| “ _____ ” | P _____ | _____ |

Step 2: Group Into Themes (Cluster similar codes)

| Theme | Codes Included | # of Participants |
|----------------|----------------|-------------------|
| Theme 1: _____ | _____, _____ | / |
| Theme 2: _____ | _____, _____ | / |
| Theme 3: _____ | _____, _____ | / |

3. Quantitative Synthesis: From Numbers to Patterns

Descriptive Statistics:

| Variable | Mean | SD | Range |
|----------|-------|-------|----------------|
| _____ | _____ | _____ | _____ to _____ |
| _____ | _____ | _____ | _____ to _____ |

Key Comparisons/Correlations:

| Finding | Statistic | Significant? |
|---------|---|--|
| | $r = \underline{\hspace{1cm}} / p = \underline{\hspace{1cm}}$ | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | $r = \underline{\hspace{1cm}} / p = \underline{\hspace{1cm}}$ | <input type="checkbox"/> Yes <input type="checkbox"/> No |

4. Triangulation: Do Qual and Quant Agree?

| Finding | Qual Evidence | Quant Evidence | Agreement? |
|---------|---------------|----------------|---|
| | | | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial |
| | | | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial |
| | | | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial |

Where they disagree: _____

What might explain the disagreement: _____

5. The “So What?” Test

For each finding, answer: **Why should anyone care?**

| Finding | So What? (Implication) |
|---------|------------------------|
| | |
| | |
| | |

6. Limitations — Be Honest

| Limitation | How It Affects Your Findings |
|----------------|------------------------------|
| Sample: _____ | _____ |
| Method: _____ | _____ |
| Context: _____ | _____ |

7. From Findings to Recommendations

| Finding | Design/Research Recommendation |
|---------|--------------------------------|
| | |
| | |
| | |

8. One-Sentence Summary

My research found that _____
which matters because _____
and suggests that _____

Synthesis Canvas — Worked Example

Your Name: Alex Chen **Date:** Week 9

Research Question: What is the relationship between Instagram like-checking frequency and daily anxiety levels among HKU undergraduate students?

1. What Data Do You Have?

| Data Type | Source | Volume |
|---------------------|----------------------------|---|
| Qualitative | Semi-structured interviews | 12 interviews / 45 pages of transcripts |
| Quantitative | Online survey (Qualtrics) | n = 127 valid responses |
| Other | Diary entries (subset) | 8 participants x 14 days |

2. Qualitative Synthesis: From Quotes to Themes

Step 1: Pull Key Quotes

| Quote | Who Said It | Initial Code |
|--|-------------|----------------------|
| “I check within 10 minutes of posting. I can’t help it.” | P03 | Compulsive checking |
| “If it doesn’t hit 100 likes, I feel like a failure.” | P07 | Threshold anxiety |
| “I deleted a post because it only got 30 likes. That’s embarrassing.” | P11 | Deletion behavior |
| “I know it’s stupid, but I compare my likes to my friends’ likes.” | P05 | Social comparison |
| “When I get a lot of likes, I feel good for maybe an hour. Then it fades.” | P02 | Temporary validation |

Step 2: Group Into Themes

| Theme | Codes Included | # of Participants |
|---|---|-------------------|
| Theme 1: Compulsive checking loop | Compulsive checking, can’t resist, habitual | 10/12 |

| Theme | Codes Included | # of Participants |
|---|---|-------------------|
| Theme 2: Like thresholds as self-worth | Threshold anxiety, deletion behavior, embarrassment | 8/12 |
| Theme 3: Social comparison with peers | Social comparison, competitive feelings | 9/12 |

3. Quantitative Synthesis: From Numbers to Patterns

Descriptive Statistics:

| Variable | Mean | SD | Range |
|-------------------------------|-----------|-----|---------|
| Daily like-checking frequency | 4.2 times | 2.8 | 0 to 15 |
| GAD-7 anxiety score | 8.4 | 4.1 | 0 to 21 |

Key Comparisons/Correlations:

| Finding | Statistic | Significant? |
|---|----------------------|---|
| Like-checking frequency GAD-7 score | $r = 0.42, p < .001$ | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| High-checkers (5+/day) vs low-checkers (<2/day) anxiety | $t = 3.2, p = .002$ | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

4. Triangulation: Do Qual and Quant Agree?

| Finding | Qual Evidence | Quant Evidence | Agreement? |
|--------------------------------------|--|---|--|
| More checking = more anxiety | 10/12 described anxiety around checking | $r = 0.42$ correlation | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial |
| Social comparison drives checking | 9/12 mentioned comparing to friends | 67% selected “comparing to others” as motivation | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Partial |
| Likes tied to self-worth | “I feel like a failure” (P07) | Not directly measured | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Partial |

Where they disagree: Qualitative data suggests checking causes anxiety; quantitative data only shows correlation (can’t prove direction).

What might explain the disagreement: Cross-sectional survey can’t establish causality. Some participants may be anxious people who also happen to check more (reverse causation).

5. The “So What?” Test

| Finding | So What? (Implication) |
|---|--|
| $r = 0.42$ correlation between checking and anxiety | Moderate relationship — not deterministic, but meaningful signal for designers |
| 67% check to compare with others | Hiding like counts might reduce comparison triggers |
| 10/12 describe compulsive checking | Design interventions (friction, delays) might help break the loop |

6. Limitations — Be Honest

| Limitation | How It Affects Your Findings |
|-------------------------------|--|
| Sample: HKU students only | May not generalize to other populations or cultures |
| Method: Self-report data | Actual checking frequency may differ; social desirability bias |
| Context: Correlational design | Cannot prove that checking <i>causes</i> anxiety |

7. From Findings to Recommendations

| Finding | Design/Research Recommendation |
|-----------------------------------|---|
| Compulsive checking loop | Test “check later” nudges that add friction after posting |
| Social comparison drives behavior | Hide like counts by default; show only to poster |
| Temporary validation effect | Research whether delayed like visibility reduces anxiety |

8. One-Sentence Summary

My research found that Instagram like-checking frequency is moderately correlated with anxiety ($r=0.42$) among HKU students, driven primarily by social comparison,

which matters because it provides evidence that engagement metrics affect mental health in Asian university populations (previously understudied),

and suggests that design interventions like hidden likes or checking friction could reduce comparison-driven anxiety — but longitudinal research is needed to establish causality.