Title Page

Thursday, July 31, 2025 1:00 PM

Changemakers: Creativity and Value Creation (ACCA5033)

ASSIGNMENT 1: INNOVATION AND RESEARCH

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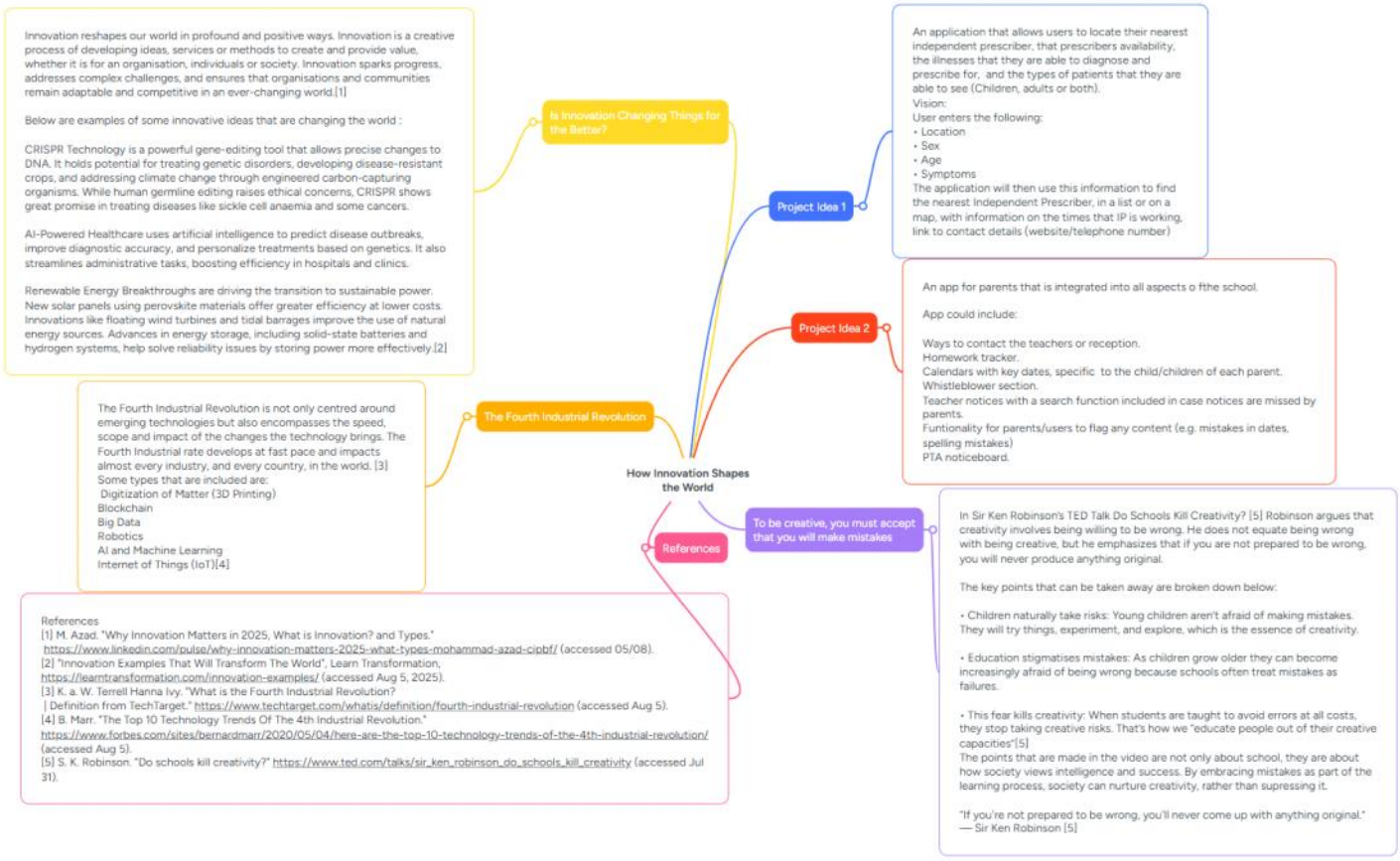
Task 1: Ideation & Mind Map

03 June 2025 12:50

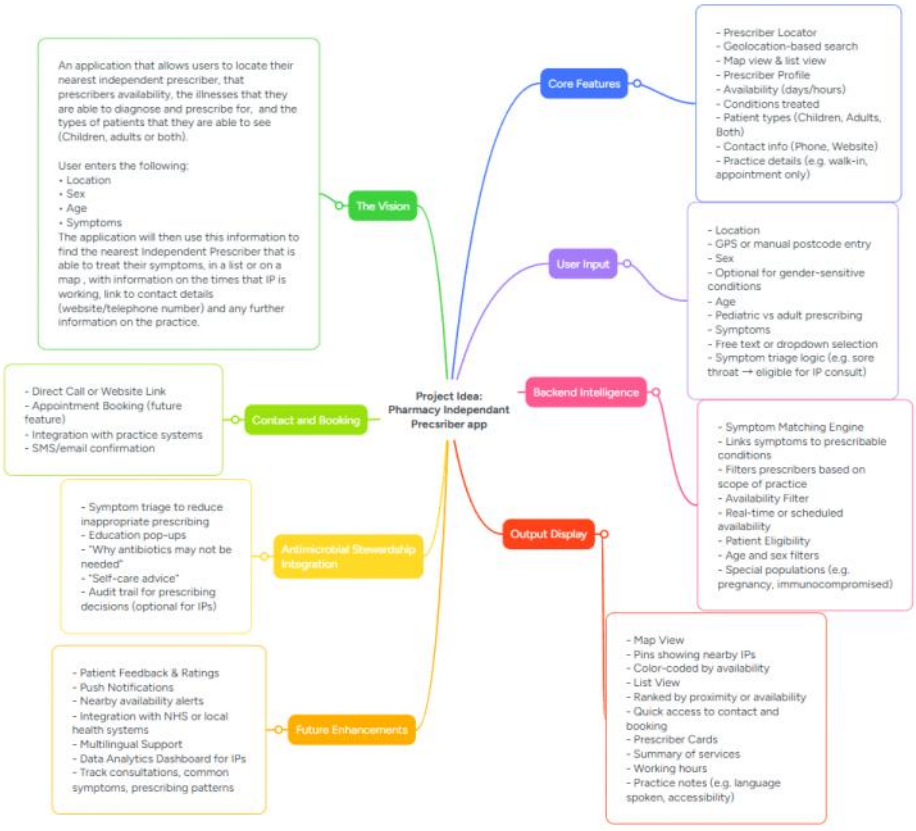
Q1.



Link to mind map: https://mm.tt/map/3733217225?t=pg1aMaGTS5

- **Q2.**

Project idea 1 has been taken forward and, as suggested by lecturers, a separate mind map has been created, displayed below:



Link to mind map: https://mm.tt/map/3784583007?t=quUO45S1UW

Task 2 - Aim and Objectives and Research area

03 June 2025 12:51

Q1.

Project Aim

To develop a clinically intelligent Pharmacy Prescriber Locator App that enables patients to identify and access appropriate pharmacist prescribers based on geolocation, condition-specific treatment eligibility, and age suitability, thereby improving access to care, supporting antimicrobial stewardship, and reducing unnecessary GP consultations.

Objective 1: Research & Planning

- **Specific**: Focused on gathering clinical, regulatory, and user-centered data to inform app logic and prescriber filtering.
- **Measurable**: Completion of ≥10 user interviews/surveys and consultation with ≥2 healthcare professionals (e.g. pharmacist prescribers, NHS service leads).
- **Achievable**: Feasible via desktop research, outreach to pharmacy networks, and review of NICE/NHS guidance.
- **Relevant**: Supports development of clinically appropriate triage logic and prescriber filters based on scope of practice, age eligibility, and condition-specific treatment.
- **Time-bound**: Deadline set for end of Month 1.
- **Description**: Conduct detailed research on user needs, prescriber roles, age-based treatment eligibility, and regulatory requirements by the end of Month 1 to inform app design and logic.

Objective 2: Core Functionality Development

- **Specific**: Enables location-based search for pharmacist prescribers who are qualified to treat specific conditions and age groups.
- **Measurable**: Measured by successful completion of search and filter tasks in the app, with correct exclusion of prescribers outside scope.
- **Achievable**: Feasible using mapping APIs (e.g. Google Maps API) and structured prescriber metadata.
- **Relevant**: Directly supports the app's aim of improving access, ensuring clinical appropriateness, and promoting antimicrobial stewardship.
- **Time-bound**: Completed within a 6-week development window.
- **Description**: Design and implement a working prototype that allows users to search for independent prescribers by location, availability, conditions treated, and age eligibility within 6 weeks.

Objective 3: User Interface & Experience

- **Specific**: Focused on improving UX and accessibility for diverse patient groups, including children, older adults, and those with limited digital literacy.
- **Measurable**: Measured via feedback from ≥5 users completing usability tests, including SUS scoring and accessibility checks.
- **Achievable**: Achievable using responsive design principles and accessibility standards (e.g. WCAG 2.1).
- **Relevant**: Enhances user adoption, safety, and engagement across patient demographics.
- **Time-bound**: Due by Week 8.
- **Description**: Develop an intuitive, mobile-responsive user interface by Week 8, ensuring ease of use for patients of all ages and abilities, with clear symptom input and prescriber filtering.

Objective 4: Database & Backend Implementation

- **Specific**: Focused on building a secure backend system to store prescriber profiles, treatment competencies, and age group eligibility.
- **Measurable**: Database is functional with ≥50 dummy entries, including condition and age group metadata.
- **Achievable**: Can be built using MySQL, PostgreSQL, Firebase, or similar platforms.
- **Relevant**: Supports core app functionality, clinical filtering, and aligns with GDPR and NHS data handling standards.
- **Time-bound**: Completed by Week 7.
- **Description**: Build a secure and scalable database by Week 7 to store prescriber profiles, including name, location, availability, conditions treated, and age groups accepted.

Objective 5: Testing & Evaluation

- **Specific**: Addresses product reliability, clinical accuracy, and readiness for launch.
- **Measurable**: Based on bug-tracking metrics, clinical logic validation, and usability scores from pilot testing.
- **Achievable**: Realistic with unit, integration, and user acceptance testing, including feedback from pharmacist prescribers.
- **Relevant**: Ensures a safe, trustworthy, and clinically appropriate user experience.
- **Time-bound**: Deadline set for end of Month 3.
- **Description**: Conduct system testing and fix ≥90% of identified bugs before launch at the end of Month 3, validating clinical logic

and usability with pilot participants.

The SMART objectives for the Pharmacy Prescriber Locator App have been carefully refined to ensure clinical relevance, user-centred design, and technical feasibility. Each objective supports the overarching aim of improving patient access to appropriate pharmacist prescribers by incorporating condition-specific and age-based filtering, secure data handling, and intuitive user experience. With clear milestones for research, development, testing, and evaluation, the project is structured to deliver a safe, responsive, and impactful digital health tool aligned with NHS priorities and antimicrobial stewardship goals.

Q2.

For this project, a pragmatic research philosophy is most appropriate. Pragmatism is centred on solving real-world problems and focuses on outcomes rather than rigid adherence to a single philosophical stance. Since the aim of this project is to develop a pharmacy app that enables patients to locate the nearest independent prescriber based on symptoms, age, and location, pragmatism offers the necessary flexibility to address this real-world challenge effectively. This philosophy supports a mixed-methods approach, combining quantitative data (such as app usage and location statistics) with qualitative data (such as user experiences and ethical considerations). Pragmatism is particularly suited to applied, user-focused projects where practical impact is a priority. As Saunders et al. (2023) explain, pragmatism enables researchers to choose the methods that best suit the research question and purpose, drawing on both objective and subjective knowledge to achieve practical outcomes. [1]

Q3.

To support the development and evaluation of the Pharmacy Prescriber Locator App, a range of scholarly databases and search tools will be used. These resources facilitate access to high-quality evidence, including clinical guidelines, systematic reviews, and implementation studies relevant to digital triage, pharmacy prescribing, and antimicrobial stewardship.

Search Strategy Overview

A structured search strategy will be employed to ensure comprehensive and reproducible literature retrieval. This includes:

- **Boolean operators** (AND, OR, NOT) to combine concepts such as “pharmacy prescribing” AND “antimicrobial stewardship”.
- **MeSH terms** and controlled vocabulary in PubMed (e.g., *Clinical Decision Support Systems*, *Drug Prescriptions*, *Pharmacies*) to enhance precision.
- **Truncation and wildcards** (e.g., *prescrib* to capture prescribe, prescribing, prescriber) to broaden search scope.
- **Date filters** to prioritize recent evidence (e.g., 2015–2025) relevant to digital health innovations.
- **Citation chaining** using Scopus/Web of Science to identify influential studies and track implementation outcomes.
- **Grey literature** searches via Google Scholar and NICE Evidence Search to include policy documents, ethical frameworks, and real-world evaluations.

Key Databases and Tools

Resource	Purpose and Application
PubMed	To identify peer-reviewed studies on CDSS, antimicrobial stewardship, and pharmacy-led interventions. Boolean operators and MeSH terms will refine searches. CDSSs have shown significant impact on reducing inappropriate antibiotic use. [2]
Cochrane Library	To access systematic reviews and meta-analyses on interventions aimed at improving antibiotic prescribing and healthcare access. [3]
Scopus / Web of Science	To explore interdisciplinary research on healthcare innovation, technology adoption, and public health outcomes. [4]
Google Scholar	To locate grey literature, ethical discussions, and regulatory perspectives on mobile health applications. [5]
NICE Evidence Search	To retrieve UK-specific clinical guidelines and antimicrobial prescribing pathways. [6]

References

[1] M. N. K. Saunders, P. Lewis and A. Thornhill,*Research methods for business students,* Harlow, England: Pearson, 2023.

[2] B. Rittmann and M. P. Stevens, "Clinical Decision Support Systems and Their Role in Antibiotic Stewardship: a Systematic Review," *Curr Infect Dis Rep,* vol. 21, no. 8, pp.29, July 24 2019. doi: 10.1007/s11908-019-0683-8. Accessed: Aug 5, 2025, [Online]. Available: https://doi.org/10.1007/s11908-019-0683-8

[3] P. Davey, et al., "Interventions to improve antibiotic prescribing practices for hospital inpatients," *Cochrane Database of Systematic Reviews,* no. 2, 2017. doi: 10.1002/14651858.CD003543.pub4. Accessed: Aug 5, 2025, [Online]. Available: https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD003543.pub4/full

[4] J. Kosiol, et al., "Revolutionising health and social care: innovative solutions for a brighter tomorrow – a systematic review of the literature," *BMC Health Services Research,* vol. 24, no. 1, pp.809, July 12 2024. doi: 10.1186/s12913-024-11099-5. Accessed: Aug 5, 2025, [Online]. Available: https://doi.org/10.1186/s12913-024-11099-5

[5] C. Brall, P. Schröder-Bäck and E. Maeckelberghe, "Ethical aspects of digital health from a justice point of view," *Eur J Public Health,* vol. 29, no. Supplement_3, pp.18–22, -10-01 2019. doi: 10.1093/eurpub/ckz167. Accessed: Aug 5, 2025, [Online]. Available: https://doi.org/10.1093/eurpub/ckz167

[6] "Overview | Antimicrobial stewardship | Quality standards | NICE." https://www.nice.org.uk/guidance/qs121 (accessed Aug 5).

Task 3 - Research Strategies

03 June 2025 12:52

Q1.

To ensure the robustness of this research, strategies will be employed across four key domains:

- **Validity**: Internal validity will be strengthened through triangulation of data sources (e.g., survey responses, observational data, and literature) and use of validated symptom triage frameworks from NICE guidelines [1]. External validity will be supported by sampling across diverse pharmacy settings in Wales to enhance transferability.
- **Reliability**: A structured survey instrument will be piloted and refined to ensure consistency in responses. Cronbach's alpha will be calculated to assess internal consistency of Likert-scale items. Coding frameworks for qualitative feedback will be developed collaboratively to reduce inter-rater variability [2].
- **Generalisability**: While the pilot will be region-specific, purposive sampling will include urban and rural pharmacies to reflect broader prescribing contexts. Findings will be cautiously extrapolated to similar UK settings, acknowledging limitations in representativeness.
- **Ethical Considerations**: Ethical approval will be sought via institutional review processes. Participant consent, data anonymisation, and secure storage will be prioritised. The pilot will also assess burden and clarity to ensure participant welfare [3].

- **Q2.**

Selected Methods:

A **mixed-methods approach** will be adopted:

- **Quantitative**: Structured surveys to assess user experience, prescribing patterns, and app usability.
- **Qualitative**: Semi-structured interviews with pharmacists and patients to explore perceptions of digital triage and prescribing.

Pilot Design:

A pilot survey will be distributed to 10 pharmacists and 10 patients using the app prototype. The survey will include:

- Demographics
- Symptom triage clarity
- Prescribing confidence
- Perceived impact on antimicrobial stewardship

Feedback will be collected on:

- Survey length and clarity
- Relevance of questions

- Suggestions for improvement

This feedback will be used to refine the final instrument. The pilot tool and feedback summary are included in the appendices section under **Appendix B**.

Q3.
Quantitative Analysis:

- **Descriptive statistics**: Frequencies, means, and standard deviations to summarise survey responses.
- **Inferential statistics**: Chi-square tests and logistic regression to explore associations between app use and prescribing decisions.
- **Reliability testing**: Cronbach's alpha for internal consistency of survey scales [4].

Qualitative Analysis:

- **Thematic analysis**: Coding of interview transcripts to identify recurring themes such as trust in digital triage, barriers to adoption, and ethical concerns.
- **Framework analysis**: Mapping responses to predefined domains (e.g., usability, safety, stewardship) to align with project goals [5].

Together, these methods will provide a comprehensive understanding of the app's feasibility, acceptability, and potential impact.

References

[1] "Antimicrobial stewardship | Topic | NICE." https://www.nice.org.uk/guidance/health-protection/communicable-diseases/antimicrobial-stewardship (accessed Aug 15).
[2] H. Noble and J. Smith, "Ensuring validity and reliability in qualitative research," *Evidence-Based Nursing,* /01/21 2025. doi: 10.1136/ebnurs-2024-104232. Accessed: Aug 15, 2025, [Online]. Available: https://ebn.bmj.com/content/early/2025/01/21/ebnurs-2024-104232
[3] "Pilot Study in Research: Definition & Examples", https://www.simplypsychology.org/pilot-studies.html (accessed Aug 15, 2025).
[4] "Types of Research Methods: Quantitative & Qualitative (2025)." https://paperguide.ai/blog/types-of-research-methods/ (accessed Aug 15).
[5] "Qualitative vs Quantitative Research: What's the Difference?", https://www.simplypsychology.org/qualitative-quantitative.html (accessed Aug 15, 2025).

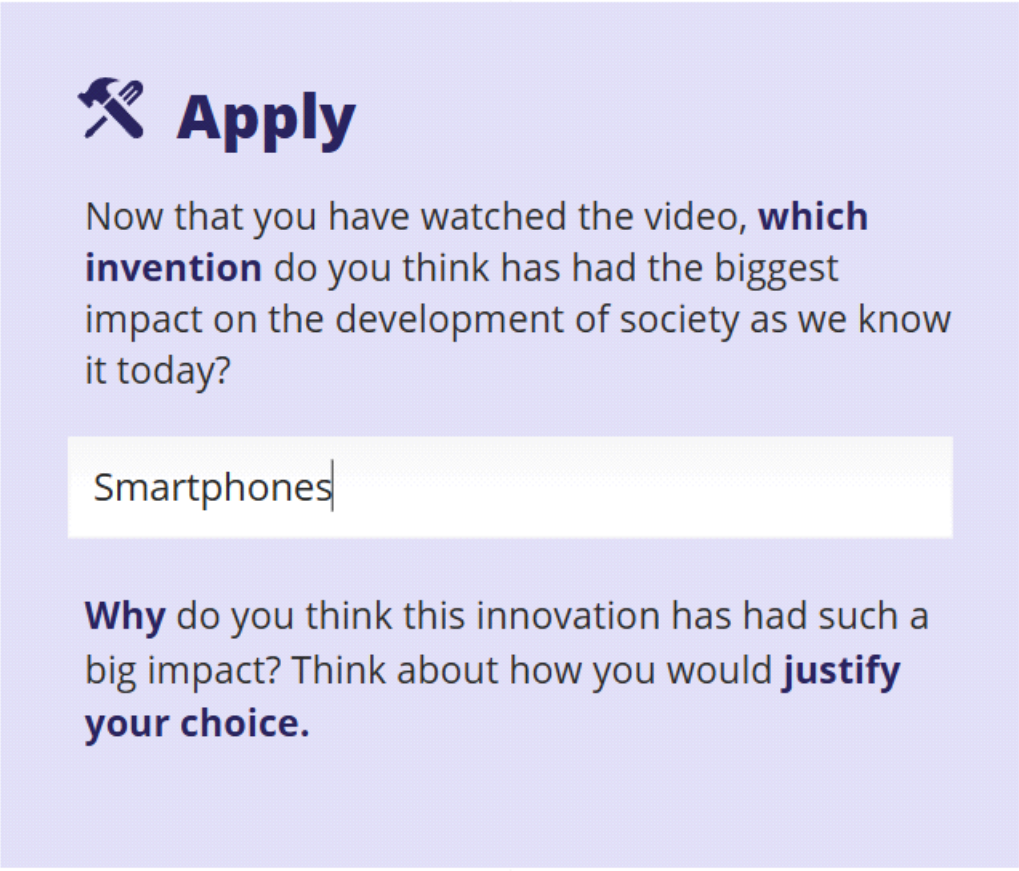
Appendices

03 June 2025 12:52

Appendices: **Supplementary information**
An appendix page/section can be used to include relevant supplementary information such as indirect supporting information to task answers, forum posts, tutorial activity answers, evidence of team-working.

Appendix A: Engagement with the Online Course Content
Appendix A

Unit 1, Topic 1 – How Innovation Shapes the World



Is innovation changing things for the better?

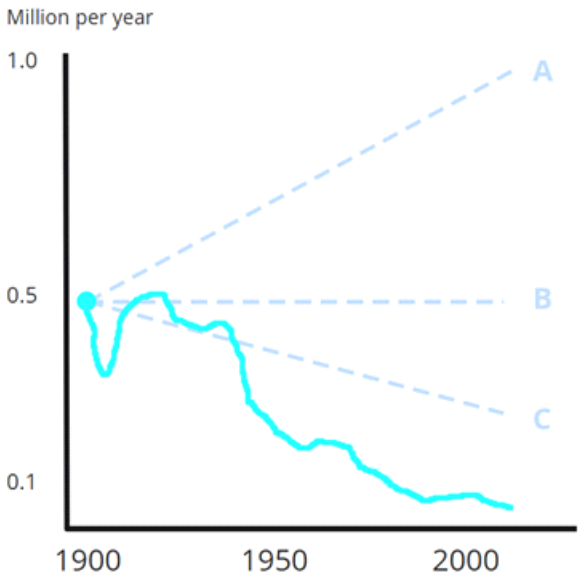
Deaths from natural disasters actually fell to **less than half** over the last 100 years.

In 1900, roughly half a million people died a year from natural disasters such as floods, fires, earthquakes and droughts.

When polled, **only 12%** of the Swedish public chose option C, that deaths from natural disasters had fallen to less than half.

50% agreed with option A, believing that the rate had more than doubled.

C. Decreased to less than half



Is innovation changing things for the better?

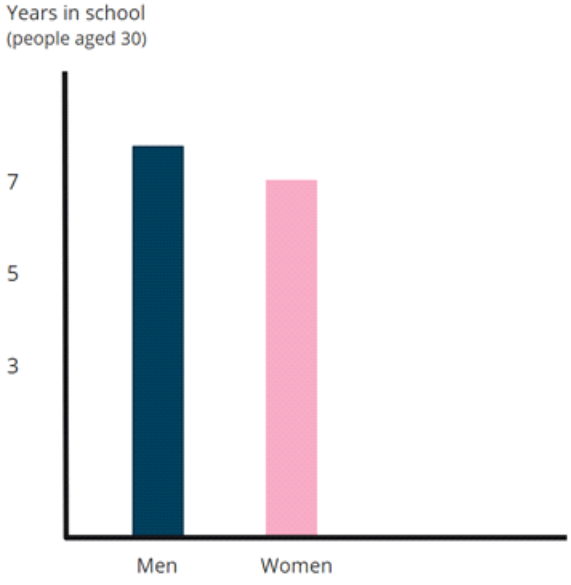
Across the world, **women aged 30 have spent 7 years in education.**

While we haven't achieved gender equity, the overall average is much closer than many people realise. In fact, when polled, only 24% of the USA public chose option A. **52% chose option B**, that women had spent 5 years in school.

Hans Rosling argues that "when you answer, you answer according to the worst places, and there you are right, but you miss the majority."

Do you agree with that?

A. 7 years



Is innovation changing things for the better?

In fact, the percentage of people living in extreme poverty almost halved.

This data was collected in 2014, and more recent data shows that this percentage has fallen even further.

In 1990, 35.9% of the global population lived in extreme poverty**. In 2017, it was only 9.3%.** Although this still means nearly 1 in 10 people live in extreme poverty, this has fallen from over 1 in 3 people in 30 years.

C. Almost halved

As you can see here, many aspects of life have been improved by **modern innovation.**

In general, we are doing much better than in the 'good old days', with higher quality of life and improved access to resources.

These three questions were posed by **Hans Rosling** in a **2014 TED Talk.** In the next activity, we will look at more of his work to see if innovation is really changing things for the better.

What is the fourth Industrial Revolution?

Revolution		Year	Information
	1	1784	Steam, water, mechanical production equipment
	2	1870	Division of labour, electricity, mass production
	3	1969	Electronics, information technology, automated production
	4	?	Cyber-physical systems

Reflect

Drag the characteristics to the correct revolution.

Each characteristic will appear one at a time.

Submit

What is the fourth Industrial Revolution?

Revolution		Year	Information
	1	1784	Steam, water, mechanical production equipment
	2	1870	Division of labour, electricity, mass production
	3	1969	Electronics, information technology, automated production
	4	?	Cyber-physical systems

Reflect

As you can see, the characteristics of each industrial revolution have changed a lot over time.

Now you have seen an overview of the fourth industrial revolution, we will look at some of the new technologies that will potentially change our way of living.

Check

Drag the revolution to the correct definition.

a. Steam, water and mechanical means of production — First Industrial Revolution

b. Division of labour, electricity and mass production

c. Electronics, IT and automated production

d. Cyber physical systems — Fourth Industrial Revolution

Submit

Check

Drag the revolution to the correct definition.

a. Steam, water and mechanical means of production — First Industrial Revolution

These are the correct definitions for the first and fourth industrial revolutions.

If you'd like to remind yourself of the definitions of each, let's **revisit that slide.**

d. Cyber physical systems — Fourth Industrial Revolution

Unit 1, Topic 2 – How do you solve a problem?

Check

Using creativity to **avoid stress** is:

- A contemplation tool
- A distraction tool
- A means of self-development to face challenges by building up self-esteem and confidence

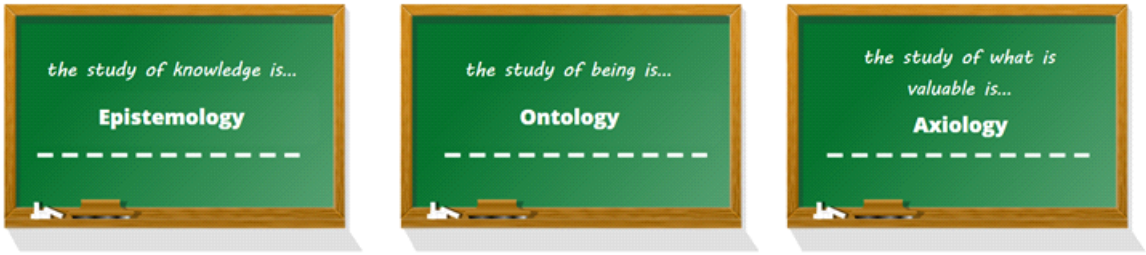
Correct!

When we use creativity simply to avoid something challenging or ignore something we find stressful, it is a **distraction tool.**

Only when we use creativity to give us the mind space to reassess problems in our lives and make plans can we consider it a **contemplation tool.**

Check

If we were to translate the following words from Greek, what would they mean? **Drag each** of the three forms of philosophy to their correct definition.

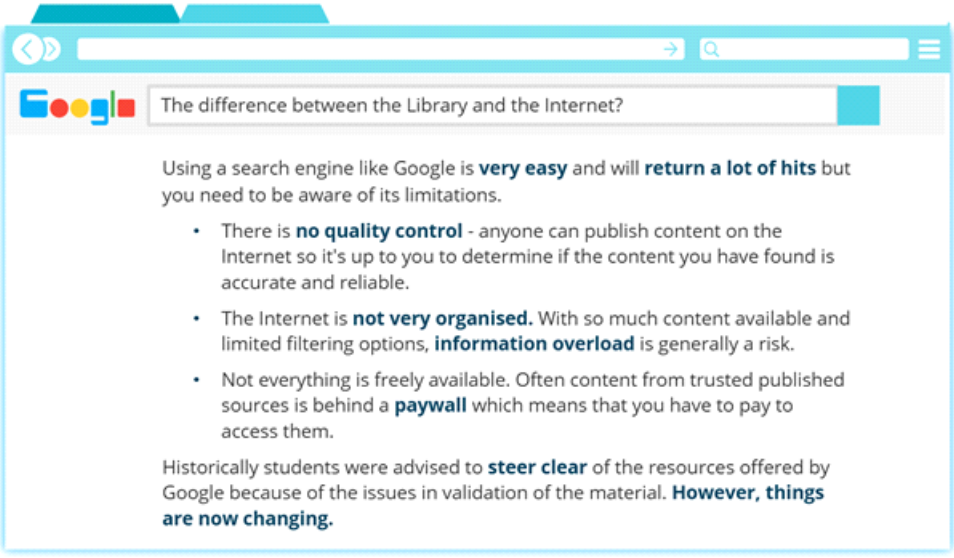


Reflect

As you are reading each of the different sorts of research philosophy, it is likely you will be drawn to it or not. Choose how you feel about the following research philosophies. **Is there an outright winner for you?**

	Support	Indifferent	Against
Positivism	◉	○	○
Critical Realism	○	◉	○
Interpretivism	○	◉	○
Postmodernism	○	◉	○
Pragmatism	◉	○	○

Unit 1, Topic 3 – Known Knowns



Yes, I use this	Name	Information
◉	*ERIC*: Education Resources Information Center	
◉	Google Scholar *and* Google Books	
◉	Internet Archive Scholar	
◉	JSTOR	
○	Project Gutenberg	
◉	PubMed	
○	ResearchGate	
○	Semantic Scholar	

Reflect

Here is a list of some of the **most popular databases** for academic study.

Which ones do you use? **Select the buttons** of that you do use.

For databases that you don't know, **click their name to see more.**

Can you think of any other databases? Share any that aren't listed here on your **Moodle** forum.

You can also share any comments about the websites here and how you find their usability.

How to use keywords

Keywords to search for	Joining words to make one Keyword
Star Wars	'Star Wars'
Ed Sheeran	'Ed Sheeran'
Premier League	'Premier League'
The Market for Lemons	'The Market for Lemons'

See this table for some examples.

Click a tab to see how we use keywords in each circumstance.

When keywords contain more than one word

Sometimes a key search term may have one meaning but **span more than one word.**

For example, Premier League; Ed Sheeran; Star Wars; the market for lemons. When you encounter such indexes for your search you can identify it using the **speech marks** to indicate that the words are one keyword search item.

When keywords are similar words on a theme

Combining your keywords intelligently

Finding more keywords

Check

1. A keyword is like a...

- ✗ A word that unlocks others.
- ✗ A word like a hashtag that summarises the meaning of a sentence.
- ✗ A way of distilling meaning that can be used to search databases.
- ✓ All of the above.

Correct!

A keyword is all of these descriptions.

Check

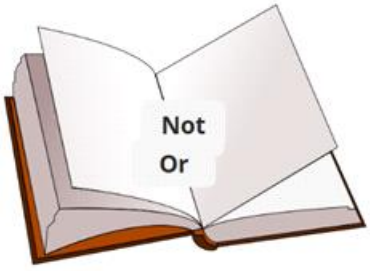
2. We can locate the keywords in our research by...

- ✗ Asking the library staff
- ✗ Using a piece of software
- ✓ Remove all superfluous words

Correct!

Check

3. Drag all the correct common Boolean operations to the book. Drag the incorrect options into the bin.



Correct

Unit 2, Topic 2 – Finding a Needle in a Haystack

Surveys

Surveys are a great way of collecting data to support your research. The nature of the questions will affect whether the data collected is considered **quantitative or qualitative**. Closed questions with fixed answers such as true or false, multiple choice or numerical will be considered as being quantitative. On the other hand, open ended questions that allow the respondent freedom to answer will be considered qualitative.

Hide

Closed question	Open-ended question
Why don't you eat ice cream at Fictionals Ice Cream Parlour? (Choose at least one answer)	Why don't you eat ice cream at Fictionals Ice Cream Parlour?
❑ I don't like the flavours ❑ It's too expensive ❑ The service is bad ❑ I don't like the ice cream ❑ It's too far from my house ❑ I don't know	I am lactose intolerant so I can't eat most ice creams, and it's really hard to find a store that offers good lactose-free ice cream. I've never heard of Fictionals but if I knew that they offered some, I would definitely try them out because I love ice cream.

Qualitative research data

Identifying participants for qualitative research, such as interviews and focus groups, often focuses on a limited number of respondents. This is for a number of reasons, for example:

- Your time and resources may be stretched
- There are limited people who have experiences that you are studying
- There are limited people with the knowledge or expertise in the area you are studying

Qualitative research data

To select the people in your survey, there are a **number of approaches and explanations** for narrowing the research to accommodate either small samples of qualitative data or the constraints of your research. Select each of the tabs below to reveal different examples of sampling.

- **Typical case sampling**
- **Unusual case sampling**
- **Snowball sampling**
- **Random sampling**

Typical case sampling

You could take your learning from the **typical** instance. For example, research on child poverty could focus on the average responses of children who struggle with hardship.

Quantitative research data

When presented with numerical data, **we can be similarly limited** in our data collection as those in the qualitative analysis. Quantitative responses can be limited because:

- Your time and resources may be stretched
- There are limited results from the experiments you make
- There are limited replies from the people you are studying

Quantitative research data

To select the people in your survey, there are a **number of approaches and explanations** for narrowing the research to accommodate either small samples of qualitative data or the constraints of your research. Select each of the tabs below to reveal different examples of sampling.

- Random sampling
- **Systematic sampling**
- Stratified sampling
- Cluster sampling

Systematic sampling

This is a similar approach to random sampling but is **generally easier to construct**. In the case of child poverty described above, instead of choosing the children at random, we take every 10th one for our analysis.

Check

In this knowledge check activity you will be presented with three research questions.

Question 1 of 3

What do we call it when we reduce the data of the population into a smaller manageable unit? We call it a...

- ✔ Sample
- ✘ Snowball

Correct!

A sample is a group of people, objects, or items that are taken from a larger population for measurement. The sample should be representative of the population to ensure that we can generalise the findings from the research sample to the population as a whole (Bineham, 2006).

Check

Question 2 of 3

Which of the following are relevant reasons for why we have to reduce the data we research into a smaller unit? (Choose which ones you think apply)

- ✔ Your time and resources may be stretched
- ✔ There are limited people who have experiences you are studying
- ✔ There are limited people/results with the relevance to the area you are studying

Correct!

If your sample size is large, it may limit your ability to produce findings that represent your population as a whole. It is therefore good practice for triangulation purposes to recruit a variety of respondents (e.g., children, adults, service users and providers).

Check

Question 3 of 3

When you select a sample from the population by picking the names out of a hat, what type of sampling are you conducting?

- ✗ Unusual sampling
- ✓ Random sampling
- ✗ Stratified sampling

Correct!

In this approach, every piece of data is considered to be equally relevant. This means if you include it in your research it is based on a random chance whether it's included or excluded from the sample you study.

My research is about...	Most like	Somewhat like	Neither	Somewhat unlike	Most unlike
	Score 5	Score 4	Score 3	Score 2	Score 1
Testing a causal relationship	○	●	○	○	○
Understanding the general opinions of a group	○	●	○	○	○
Gaining the perceptions of a group	○	●	○	○	○
Understanding something in its natural setting	○	○	●	○	○
Understanding the culture of a community 1st hand	○	●	○	○	○
Understanding current or historical events or practice	○	●	○	○	○
Analysing populations where you don't have access	○	○	○	●	○

Check

Question 1 of 2

If you wanted to understand the general characteristics or opinions of a group of people you would use a...

- ✓ Survey
- ✗ Interview
- ✗ Experiment

Correct!

This method will be based on you conducting a survey that can be distributed online, or in person over a phone or in a live meeting. It can produce mixed data (quantitative and qualitative) based upon how the questions are framed.

Check

Question 2 of 2

A 'Likert scale' is?

- ✓ Respondents specify their level of agreement or disagreement on a symmetric agree-disagree scale for a series of statements
- ✗ A way of confirming the validity of experimental research invented by Donald Likert in 1967

Correct!

A good solution to measure success would be to consider a 'Likert scale'. A Likert scale is a five-point answer like the one you have used in the previous 'research approach' activity.

Unit 4, Topic 1 – It's all in the numbers

Check

Question 1 of 2

Would a survey of 300 students, chosen at random, from your university and asking them the question: "On a scale from 1-5, how satisfied are you with your professors?" be a good sample?

- ✓ Yes
- ✗ No

Correct!

The survey has been conducted at random to avoid any bias. The survey will of course have some bias as it is a sample of the entire university, but it has mitigated this by randomising the trial.

Check

Question 2 of 2

Could research of the recovery of people from Covid living on the island of Jersey be used be applied to people living in the city of New Delhi, India?

- ✗ Yes
- ✗ No
- ✓ It depends

Correct!

It depends. Do you think that the people living in Jersey are comparable to the people who live in New Dehli? If yes then the research is valid, if not then the research should not be used in the New Delhi context.

Applying consideration to our charts (and writing)

When you start to include charts in your research, consider the following questions.

1. **What are you trying to accomplish?**
2. **What story in your data do you want to share?**
3. **Are you trying to present too much?**

Click on the markers to expand on each question.

Unit 4, Topic 2 – There's a theme here

The four stages of qualitative research

1 Data collection

This is the gathering of the data through activities such as interviews, focus groups, etc.

2 Reading and re-reading the data

This is where you 'code' the data and identify common or important themes in relation to the research question. Consequently, the bulk of data is broken down into sub-sections through theme analysis.

3 Interpreting findings

This is where you will start to analyse what you have found and interpret the themes and discover meaning within them.

4 Writing your report

For this unit, we will be concentrating on 2 stages:

- Reading and re-reading the data.
- Interpreting findings.

Transcribing

'Transcribe' here means to make a written copy of a recording.

As mentioned previously, this is a time-consuming but very important step in preparing for your analysis.

Click on the icons to read further

Don't start transcribing straight away

Before you start to transcribe your interview, etc., start by listening to the full recording and considering the following:

- The rate that the participants are speaking.
- How many speakers there were.
- The length of the recording.
- Any difficulty in understanding the accents or terminology?
- Do you want to transcribe the full recording or only elements of it?

This information will ensure that you are prepared for the transcribing process.

Check

Question 1 of 1

Correct!

You selected the correct responses.

Step 1	✓	Familiarising yourself with the data
Step 2	✓	Generating initial codes
Step 3	✓	Identifying themes
Step 4	✓	Reviewing the themes
Step 5	✓	Giving your themes a name
Step 6	✓	Writing about your themes

Appendix B – Pilot and Feedback Summary

B.1 Pilot Survey

Title: *Pharmacy Prescriber Locator App – Pilot Survey*

Purpose: To evaluate the clarity, usability, and perceived impact of the app prototype among pharmacists and patients.

Section 1: Demographics

- **Age:** _____
- **Gender:** _____
- **Role:** ☐ Pharmacist ☐ Patient
- **Location:** ☐ Urban ☐ Rural

Section 2: App Usability and Symptom Triage

1. The symptom triage questions were easy to understand.
   ☐ Strongly Agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly Disagree
2. The app helped me decide whether a prescription was appropriate.
   ☐ Strongly Agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly Disagree
3. I would use this app again for similar symptoms.
   ☐ Strongly Agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly Disagree

Section 3: Antimicrobial Stewardship

1. The app promotes responsible antibiotic use.
   ☐ Strongly Agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly Disagree

2. I feel more confident in making prescribing decisions with digital support.
   ☐ Strongly Agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly Disagree

Section 4: Open Feedback

1. What did you find most helpful about the app?
   _____
2. What improvements would you suggest?
   _____

B.2 Pilot Feedback Summary

Participants:

- 10 pharmacists
- 10 patients

Method:

- Survey distributed via email and in-person testing
- Responses collected anonymously over 1 week

Key Findings

- **Clarity:** 85% found the symptom triage questions clear and relevant
- **Usability:** 90% reported the app was easy to navigate
- **Prescribing Confidence:** Pharmacists noted increased confidence in borderline cases (e.g., sore throat)

Suggestions for Improvement

- Add visual symptom guides for patients
- Include a “refer to GP” option for complex cases
- Shorten triage flow for minor ailments

Actions Taken

- Survey questions revised for clarity
- App prototype updated to include referral prompts
- Plan to incorporate visual aids in future iterations

B.3 Reflection and Interpretation

The pilot feedback reinforced the app’s potential to support antimicrobial stewardship through clearer symptom triage and improved prescribing confidence. Pharmacists appreciated the structured decision support, while patients valued the simplicity and reassurance. Suggestions for visual aids and referral options highlighted the need for flexibility in real-world use. These insights will inform the next phase of development, ensuring the app remains both clinically relevant and user-friendly.