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Skills Builder

Practising
essential skills

2023-24



Critical thinking
and research skills.

**RUSSELL
GROUP**



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Jack Weller

UK Student Recruitment Officer (Schools
Liaison)





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University of the Year

Students have voted the University of Sheffield:

- ★ University of the Year
- ★ Best Students' Union
- ★ Best Student Life

Whatuni Student Choice Awards (WUSCAs) 2024





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Overview

1. Introduction to Skills Builder
2. Critical Thinking and Research Skills
3. What makes a good researcher?
4. Creativity in Academic Pursuits
5. Reflection

The Skills Builder Framework - Skills for Success

- Opportunities to apply, practise and demonstrate essential skills as part of the programme
- 8 skills which contribute to positive outcomes in education, employment or wider life
- Build and develop your skill set over time
- Opportunities to reflect on your progress
- Utilise skills beyond the programme

Interpersonal Communication



Creative Problem Solving



Self-management



Interpersonal skills





The receiving, retaining and processing of information and ideas



The oral transmission of information or ideas



The ability to find a solution to a situation or challenge



The use of imagination and the generation of new ideas



The ability to use tactics and strategies to overcome setbacks and achieve goals



The ability to set clear, tangible goals and devise a robust route to achieving them



Supporting, encouraging and developing others to achieve a shared goal



Working cooperatively with others towards achieving a shared goal

The Skills Builder Framework – What Skills are we focusing on today and how will these skills help me be successful at school?



When faced with a problem that does not have an obvious answer, it is important we feel confident we have a reliable way of finding the best solution. By doing this, we are more likely to successfully complete a task and learn something new.

Today, we will help you: explore complex problems by building understanding through research



Creativity is a skill which can be used in all subject areas. It is about generating ideas, and then you can pick the best ones to solve a problem. Being able to use our imagination helps all parts of learning. It helps us to see other views and explore new ideas.

Today we will help you: understand how you use creativity in the context of wider life



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Critical thinking and its

significance in education and life.

Benefits of developing critical thinking skills:

1. Improved problem-solving
2. Better decision-making
3. Seeing through the hype
4. Understanding others



Strategies to enhance critical thinking

1. Questioning assumptions
1. Identifying biases
1. Examining different perspectives

Let's dive into the "Examining Different Perspectives" strategy!

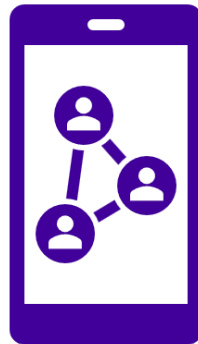
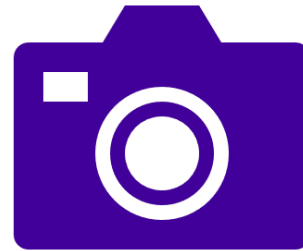




Activity: Examining Different Perspectives

1. Form pairs with a classmate.
2. Choose a topic that both of you have different opinions on. It could be something like the benefits of studying online vs. in-person or the impact of technology on society.
3. Each person takes a turn explaining their viewpoint while the other person listens carefully.
4. Then, switch roles. Now, explain the opposite viewpoint as if it's your own.

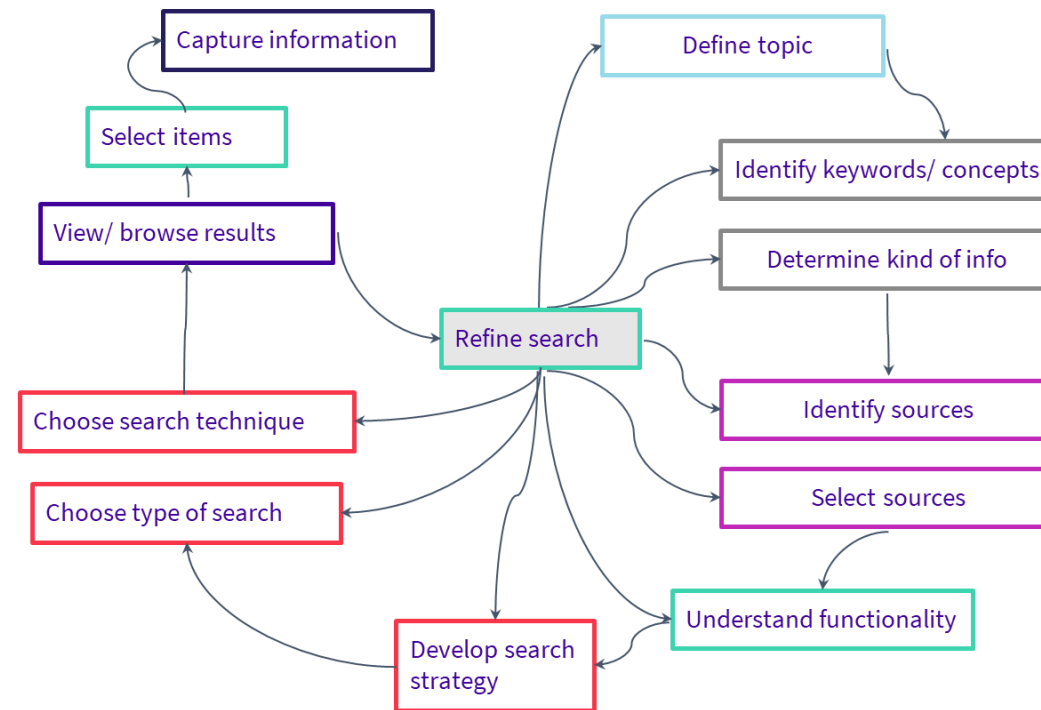
Examples of critical thinking in real-life scenarios



Explaining the research process

Being critical is a key component in academics, especially when it comes to writing something like a research project, which might sound like a daunting task! But really it is just a journey where you follow certain steps to uncover valuable insights. Here's how it works:

- Identifying research questions
- Gathering data
- Analyzing findings





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Starting your project - choosing keywords

What are they?

Keywords or search terms are the words and phrases that you will use to find information

Specificity

Stay focused, but remember synonyms and alternative spellings to improve results

Still relevant?

Be prepared to update keywords as you learn more about your topic

Top tip:

For everything you look at in your project - keep a research record of **WHERE** and **WHEN** you find **EACH** piece of information



Overview of different research methodologies

**Qualitative
approaches**

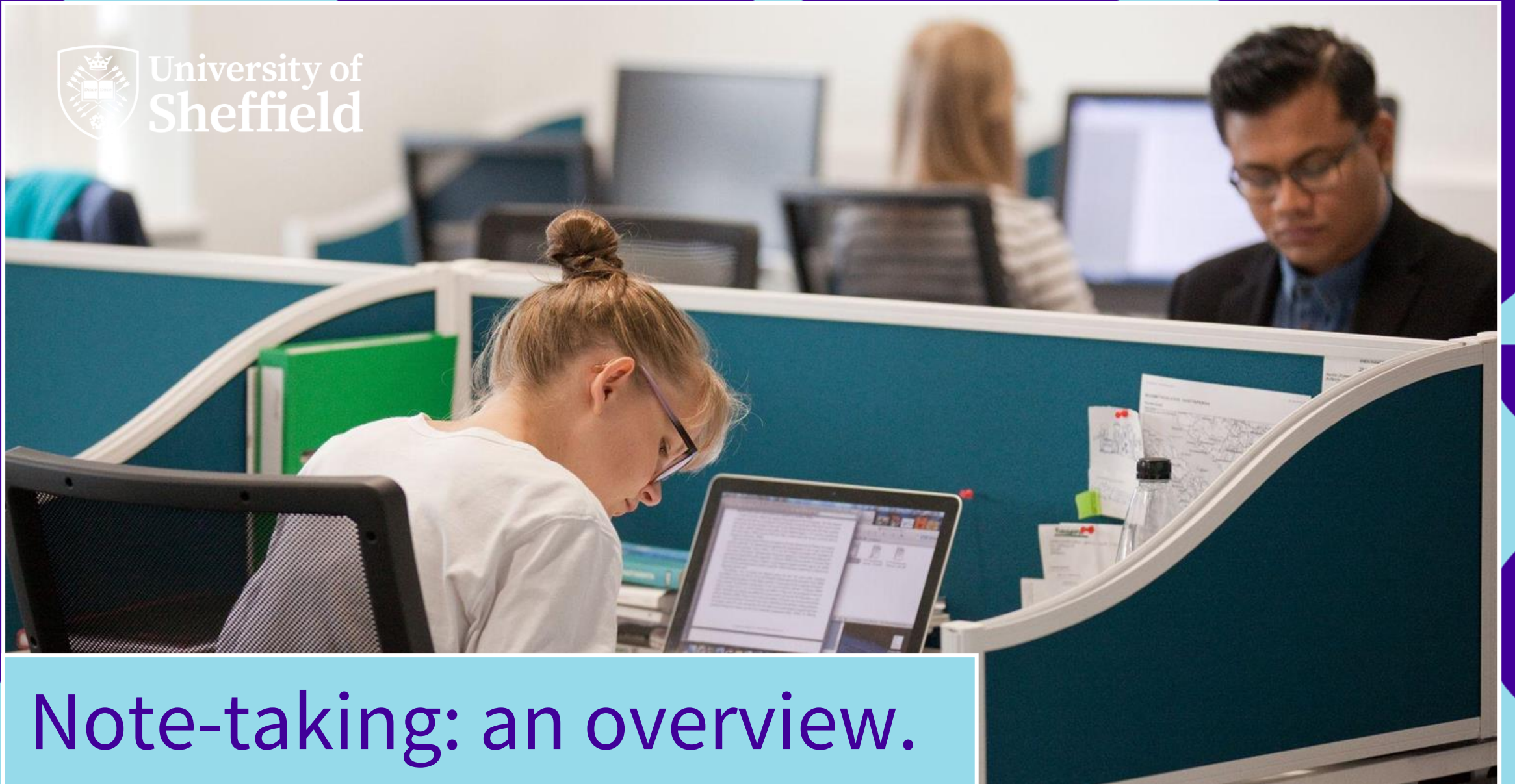


**Quantitative
approaches**





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Note-taking: an overview.



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When do you take notes?

When
doing
research

When
planning
your work

In classes,
lectures and
seminars

When
struggling to
concentrate

Note taking

Effective note taking will:

- Record key pieces of information
- Identify and understand new information
- Facilitate your thinking and research
- Provide you with material for discussions and writing



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Using critical thinking in academic reading

Evaluate
whether or not
to read a text

Consider
length of time
required to
read a text

Understand the
level of detail at
which to read a
text

Know how you
will draw key
information from
a text



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Understanding the importance of using reliable information

1. Is the author reliable?
2. Why is the information provided?
3. When was it last updated?
4. Who provided the information?

Credibility

- The person (expertise or reputation)
- The company
- Statistics
- ‘Scientific’ knowledge
- Personal experience
- Emotion: we want it to be true

AI? Should we use it?

1. Over-Reliance
2. Academic Integrity
3. Potential for misuse
4. Technical Issues
5. Privacy and Data Security





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What is referencing?

- Acknowledging that you have legitimately used someone's else's work to help complete your own
- Lots of different types of information, so there are many different ways of referencing

Activity: Fake news game



- Form pairs with a classmate.
- For each of the following news stories, discuss everything you know that could point to the authenticity of the story, this could be how credible the author seems, what organization they work for, etc. Try to identify as many variables as possible.
- Each pair will then reveal if they found the news fake or true, one reason for why they think that, but also one counterpoint to their reasoning.



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Real or
Fake?





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Real or Fake?

sky news · 6d · on MSN

Italy to spend €2.9m to tackle invasion of aggressive blue crabs

The species, originally from the western Atlantic, has spread across several lagoon-like locations in Italy, preying on local ...





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Real or
Fake?

The screenshot shows the BBC Sport website. At the top, there are navigation links for Home, News, Sport, and Weather. Below this is a yellow header with the word "SPORT" in large black letters. Underneath, there are links for Home, Football, Cricket, Formula 1, Rugby U, Rugby L, Tennis, Golf, and Boxing. The main content area shows a breadcrumb trail: Liverpool > Scores & Fixtures | Table | Top Scorers. Below this is a video player with a play button and a duration of 02:09. The video title is "Jürgen Klopp: Liverpool boss says deal for Moisés Caicedo has been agreed with Brighton". The video thumbnail shows Jürgen Klopp in a green and white Liverpool kit, sitting at a press conference with microphones in front of him. The background of the video has various sponsor logos like AXA, YNWA, and Standard Chartered.



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What is plagiarism?

A form of academic misconduct

Alongside cheating, collusion, fabrication, essay buying

Not acknowledging (*intentionally or unintentionally*) that you have legitimately used someone else's work or ideas to help complete your own

Can have serious consequences

Failing a course, being asked to leave school, college, or university



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What makes a good researcher?

Good researchers...



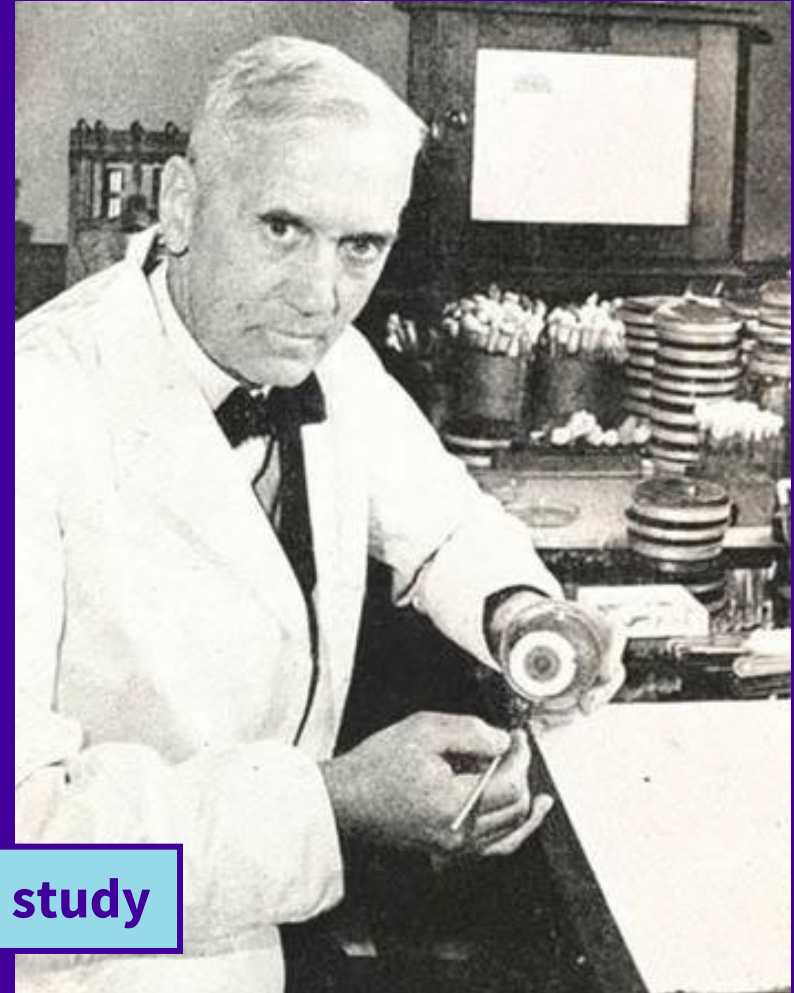
1. Use a range of sources
2. Keep an active production log
3. Talk to others and ask for help
4. Ask lots of questions
5. Focus only on the topic, and don't stray
- 6. Include their own thoughts and ideas!**

How Creativity Can Be Applied during the Research Process:

Creative thinking can inspire you to ask unusual questions, consider new angles, and explore uncharted territories. For instance, you might combine information from different fields to shed new light on a problem, or you might devise innovative methods to gather data.

Do any of you know what is happening in the case study photo? Creative observation turned a chance event into a groundbreaking medical breakthrough, that within a year, was seeing real life usage.

Case study



The Skills Builder Framework – Where you are and what can you do next?



I explore complex problems by building my understanding through research

- ✓ I identify what I know and what I need to know to understand a complex problem
- ✓ I identify the research that would be useful in exploring complex problems
- ✓ I know how to carry out primary and secondary research

I use creativity in the context of my wider life

- ✓ I identify the aspects of creativity
- ✓ I explain when I have used creativity in my wider life
- ✓ I recognize the benefits of using creativity in my wider life





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Any questions?

Sheffield Live

Insight into career opportunities, study skills and support. Our team will be on hand

Taster sessions

Experience what it's like to study your chosen subject at the University of Sheffield

Chat to current students

Start a conversation with our student ambassadors and staff