



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Essential Skills :

Critical Thinking & Problem Solving

Trawsnewid Addysg, Trawsnewid Bywydau
Transforming Education, Transforming Lives

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What are we learning?

By the end of the short session you will:

- critically evaluate the quality, relevance and limitations of evidence;
- distinguish evidence, from interpretation and judgement;
- evaluate alternative responses in relation to stakeholders, consequences, risks and professional responsibilities

What Can We Reasonably Conclude?

Something has gone wrong at work...

- You arrive at work and discover that an important document that should have been completed yesterday is still unfinished.
- Jamie was responsible for completing it.
- Jamie isn't at his desk.
- Your manager says:
“**Jamie is unreliable. This keeps happening.**”



What can you reasonably conclude from the evidence currently available?

Possible explanations



Explanation A: Jamie failed to complete the work

Explanation B: Jamie completed his part but was waiting for something from somebody else.

Explanation C: Jamie completed the work but there has been a communication or process problem

Which explanation currently has the strongest evidence?

Some more information

Jamie emailed the document yesterday afternoon.

The document was returned because an important piece of information was missing.

Jamie had asked another department for that information two days earlier.

The other department has not yet responded.



**Has your interpretation changed?
Does the evidence clear Jamie of responsibility?**

Critical Thinking

Our first explanation may be right, but it may also be wrong. Critical thinking means checking before we decide.

When you hear critical thinking, what does critical mean to you?

Critical thinking is not about finding fault with people or disagreeing with everything. It means stopping to think, checking the facts, asking questions and looking at different ideas before deciding what you think.

Useful critical questions

How do we
know?

What
evidence do
we have?

What are we
assuming?

What else
could
explain this?

What
information
is missing?



Evidence, Assumption, Interpretation or Judgement ?

Evidence

Information that can help us understand what happened.

Assumption

Something we are treating as true without enough evidence yet.

Interpretation

An explanation of what the information might mean.

Judgement

A conclusion or decision reached after considering information

Evidence, Assumption, Interpretation or Judgement?

- Work in group to sort the following statements into categories. Are the statements: Evidence? Assumptions? Interpretation? Or Judgement?

Evidence

Interpretation

Assumption

Judgement

Evidence

Interpretation

Assumption

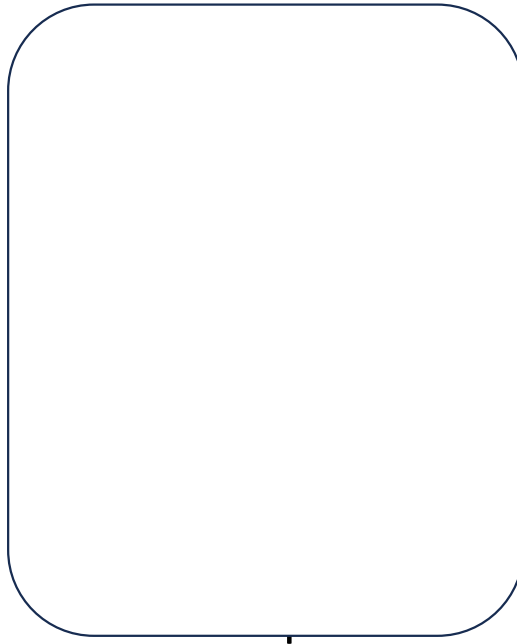
Judgement

Statements to sort:

1. Customer complaints increased from 12 to 24 last week.
2. Customer service has become worse.
3. The complaints increased because the new employee is too slow.
4. Average waiting times increased from 8 to 14 minutes.
5. Customers don't like waiting more than ten minutes.
6. The new booking system was introduced on Monday..
7. The organisation should provide additional lunchtime staffing.
8. Nobody understood the instructions

Did we agree?

- Reflect – how easy did you find to spot the evidence from the judgements and assumptions?



What Else Could Be Happening?

Consider the scenario below to think critically about what could be happening.

Scenario A: Online system

Staff payroll errors have increased by 40% during the three months following the introduction of a new online system which processes all orders and payroll.

Three managers disagree on the situation:

Manager A: “The new system has damaged staff morale.”.

Manager B: ““Staff are simply resisting change.”

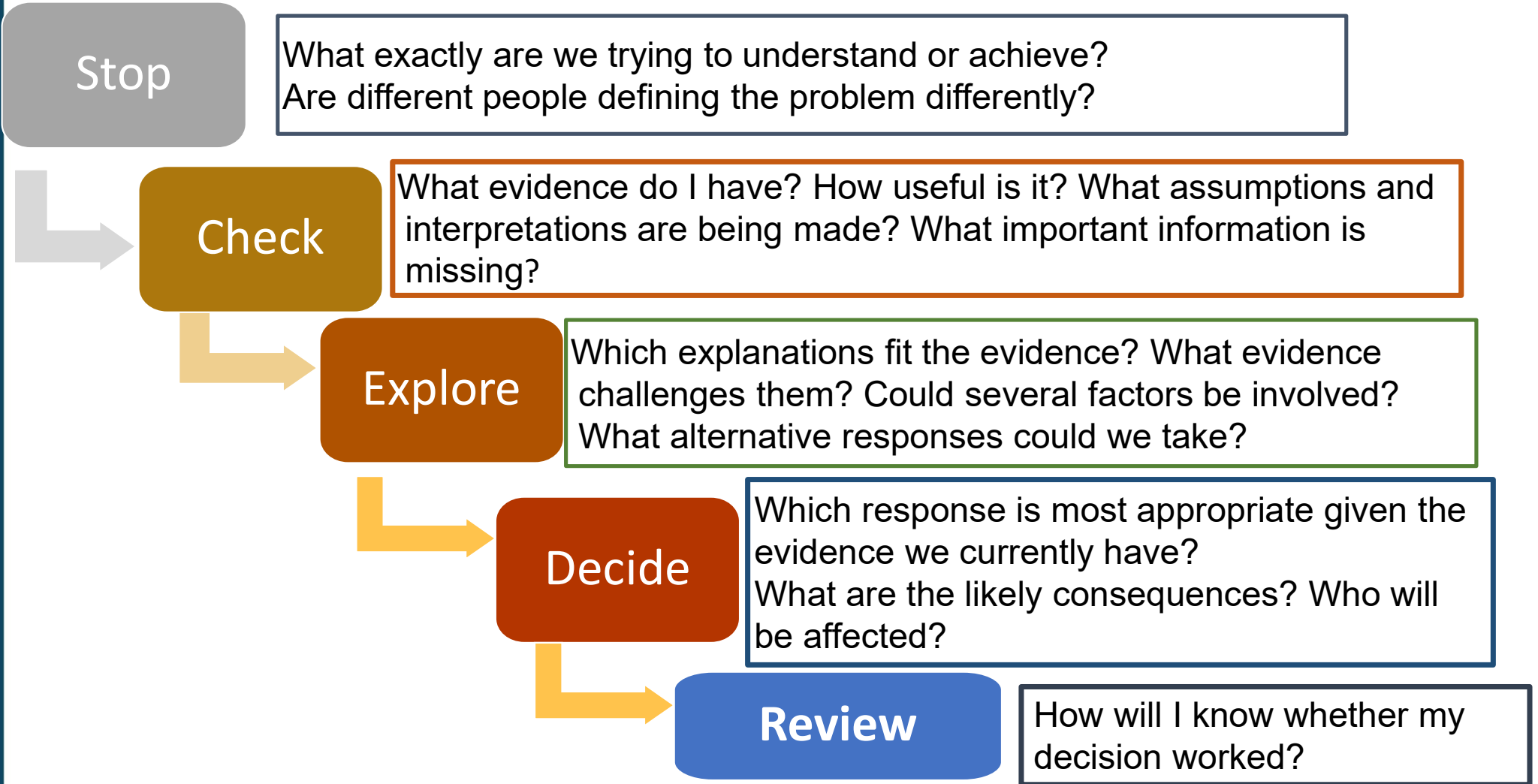
Manager C: “We need to investigate whether the system contributed to the increase in complaints”

Which statements are conclusions?

Which are hypotheses?

What evidence would help distinguish between them?

Critical Thinking at work



Activity: The Complaints Spike

Work in pairs or small groups to think critically about this scenario.
Consider what could be happening?

Your team provides a support service for clients. On Monday morning your manager tells you: *“We had twice as many complaints last week as usual. They are waiting too long. Something is going wrong.”*

A colleague immediately says: *“The new member of staff must be causing problems. They only started two weeks ago.”*

Stop

Check

Explore

Decide

Review

Activity: The Complaints Spike

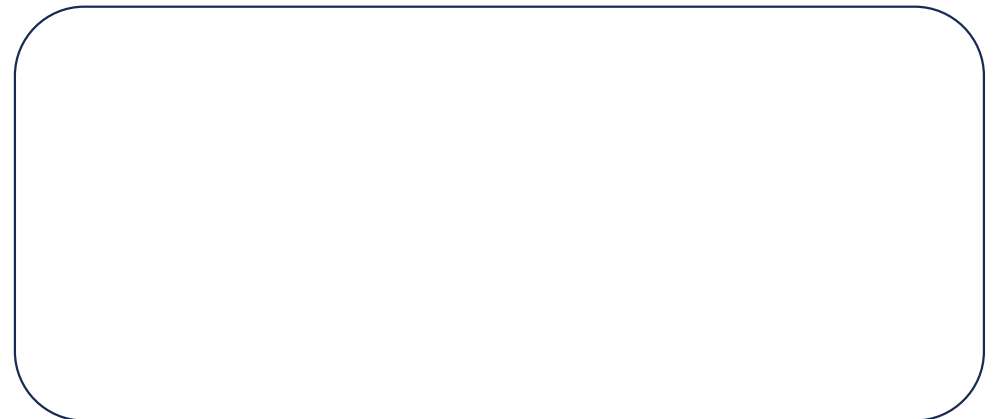
Explore

What did your group consider could be causing the complaints?



Decide

What did your group decide is the next reasonable step? We would first _____ because _____.



Don't Stop at the First Solution

It is important, as professionals, to consider the consequences of our chosen solutions.

What could we do?

What should we do?

What might happen if we do it?



- Does the suggested solution...
 - Solve the actual problem?
 - Use the information we have?
 - Create another problem?
 - Affect somebody else?
 - Need more information first?

Stop

Check

Explore

Decide

Review

Individually choose a problem scenario to apply critical thinking to. Full text of each scenario is available on Moodle in Week 4.

Problem 1 – Who Gets the Budget?

Problem 2 – The Inaccessible Work Event?

Problem 3 – The Social Media Post?

Problem 1 – Who Gets the Budget?

Your department has been given an additional £10,000 budget, but two teams both say they urgently need it.

- The Customer Service team wants the money to replace outdated equipment that staff say is slowing down their work.
- The Marketing team wants the money for a campaign to attract new customers. They argue that the campaign could increase income for the organisation.
- At the department meeting, the discussion becomes tense. A Customer Service employee says: “Keeping existing customers happy is obviously more important than advertising.”
- A Marketing colleague responds: “Without new customers, there won't be money for new equipment anyway.”

As department manager you must decide What criteria should be used to compare the two cases?

How should we make a defensible decision when legitimate priorities compete?

Problem 2 – The Inaccessible Work Event?

Your organisation is holding an important staff development event. A venue has been booked for 60 employees and invitations have already been sent.

- A colleague tells the organiser that they are concerned the venue is not be fully accessible for one employee who uses a wheelchair.
- The organiser replies: “The website says the venue is mostly accessible, so it should be fine.”
- Another colleague suggests moving the whole event immediately.
- Changing venue at short notice could cost the organisation money and may mean changing the date.

As the event organiser you need to make a recommendation by the end of the week - What evidence would actually help make the decision?
Whose evidence and perspective should carry particular relevance here and why?

Problem 3 – The Social Media Post?

An anonymous post appears on social media claiming that harassment is taking place within your organisation.

The person posting says they are an employee but does not identify themselves. They claim that inappropriate comments and behaviour have been happening for several months and that some employees are afraid to speak to their manager.

- The post begins to be shared by other people. Some comments criticise the organisation.
- A colleague says, *“Anyone can write something anonymously online. We should ignore it unless they make an official complaint.”*
- Another responds, *“If an employee is saying this publicly, something serious must be happening. Management needs to act against the people involved immediately.”*

Your team becomes aware of the post and as manager you need to decide what should happen next. What evidence is currently available? What can reasonably be concluded? What next steps could be taken?

Stop

Check

Explore

Decide

Review

What points and ideas did you develop?

Problem 1 – Who Gets the Budget?

Problem 2 – The Inaccessible
Work Event?

Problem 3 – The Social Media
Post?



My Critical Thinking Toolkit

Reflect of what you learnt and discussed today, think about how you will take this forward by completing the following sentences.

- **Before reaching a conclusion, I will make sure I understand...**
- When information points in different directions, I will consider...
- **If I do not have enough information, I will...**
- Before choosing a solution, I will consider...
- **One way I could improve the quality of my professional judgement is...**





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See you next
week!

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• References

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