Training Day

2022/23

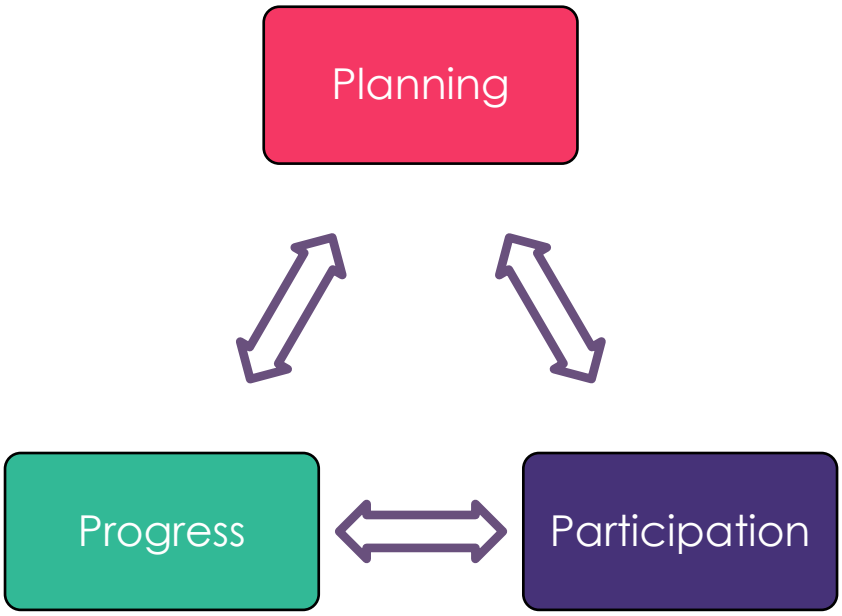
Advanced Pedagogy

Tutor name:

Contents

Our Pedagogical Principles

As a reminder, everything that we do at The Brilliant Club when it comes to planning and delivering quality learning for our students is centred around the principle of the 3 Ps. These are not mutually exclusive but overlap and intertwine when considered effectively.



As a Brilliant Club tutor, we ask you to always keep in mind these core questions:

Planning

- What will pupils know/be able to do by the end of a tutorial/programme?
- What will you include and why?

Participation

- What will pupils do?
- What will you be doing?

Progress

- How will you know what pupils have learnt?
- How will you support them?

Critical Thinking

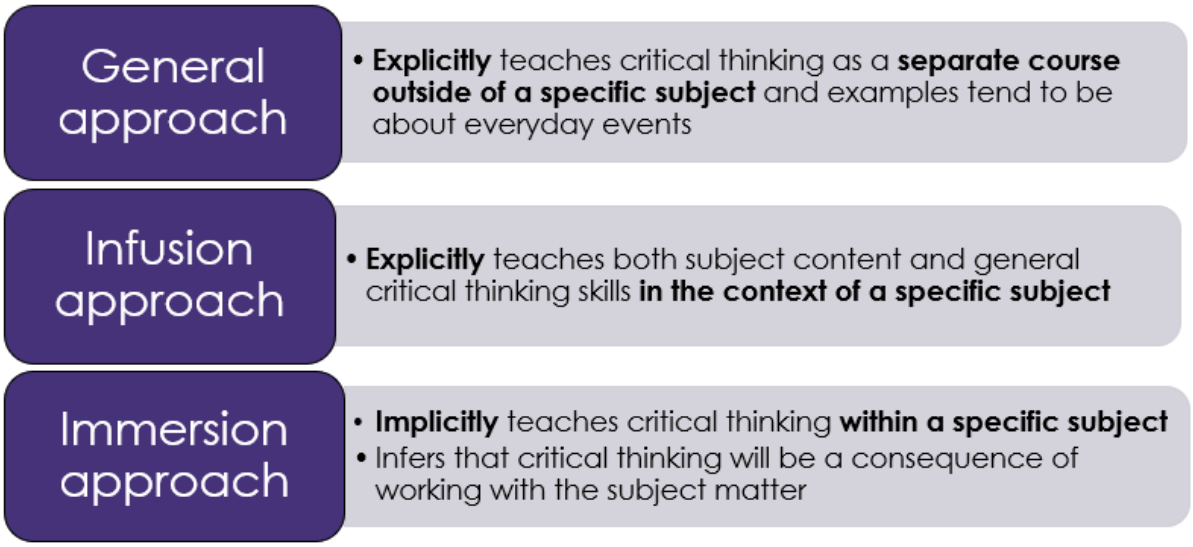
10 Thinking Skills[1]:

Skill	Definition	Rank
Analysis	to be able to examine ideas/information and identify arguments and reasons	
Creativity	to be able to visualise a problem and brainstorm productive ideas to create alternatives	
Deductive reasoning	to be able to draw a conclusion that cannot be false when based on evidence which is assumed to be the absolute truth	
Description[2]	to be able to convey an idea by providing an overview of information	
Evaluation	to be able to assess how credible information is and the quality of the argument put forward	
Explanation	to be able to state, present and justify information	
Inductive reasoning	to be able to draw a conclusion that is likely to be true based on evidence using related knowledge and experience	
Inference	to be able to draw together a conclusion which is logically valid and justifiable	
Interpretation	to be able to clarify and show understanding	
Problem-solving	to be able to create a strategy to find a solution	

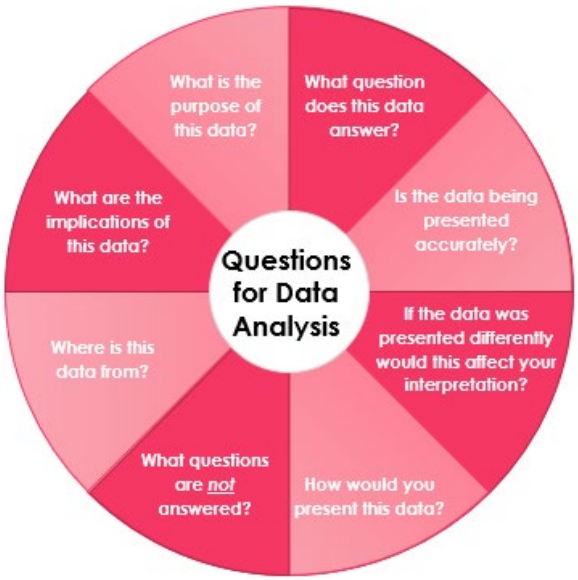
1. Definitions from Facione (1990) and Colucciello (1997)

What is critical thinking in your discipline?

Approaches to Critical Thinking Instruction

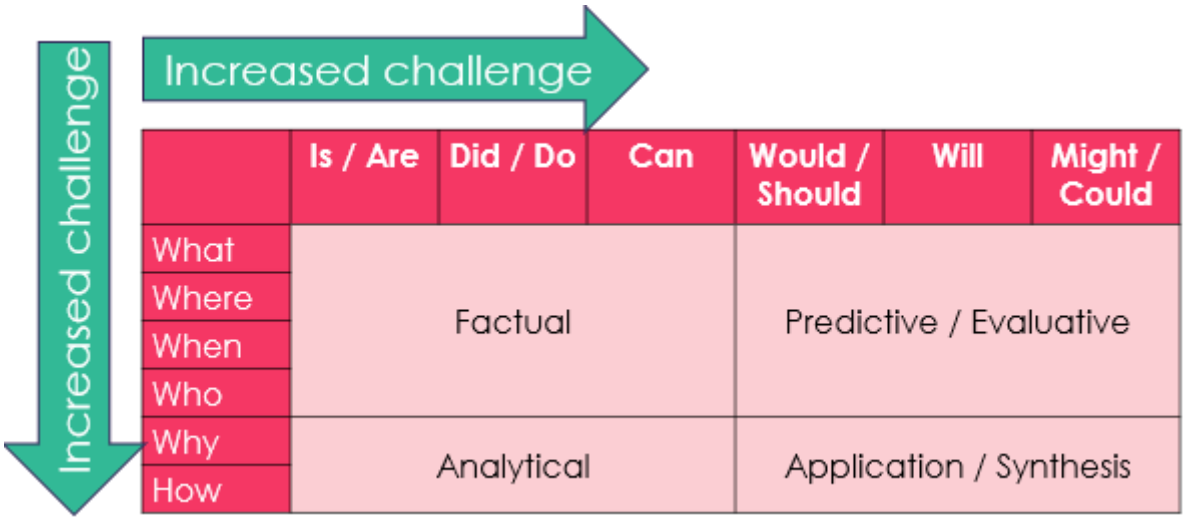


Questions to prompt deep thinking



These support questions are available in the Study Skills sections of all Scholars Programme handbooks.

Bloom's Taxonomy



Bloom's Taxonomy Questions[1]

Knowledge (Remembering)

- "What is...?"
- "How would you describe...?"
- "Why did...?
- "How would your show...?"

Comprehension (Understanding)

- "What facts or ideas show...?"
- "How would you compare...?"
- "How would your classify...?
- "Can you explain what is happening...?"

Application (Transferring)

- "What would result if...?"
- "What facts would you select to show...?"
- "What approach would you use to...?"
- "How would you use...?"

Analysis (Relating)

- "What inference can you make...?"
- "What is the relationship between...?"
- "What evidence can you find...?"

Synthesis (Creating)

- "What could be changed to improve...?"
- "How would you test...?"
- "What outcome would you predict for..

[1] Source: http://faculty.academyart.edu/faculty/teaching-topics/teaching-curriculum/enhancing-teacher-student-interaction/different-types-questions-blooms-taxonomy.html

Deliberate Practise - Questioning

Consider one activity from your course that requires students to think critically. Plan the questions that you will ask to ensure that your students give deep, critical reflections rather than surface responses.

Prompts	Responses
What is the activity:	
What would a critical response look/ sound like?	
What questions will I ask to challenge my students to think deeply and critically?	

Deliberate Practise – Models/Think Aloud

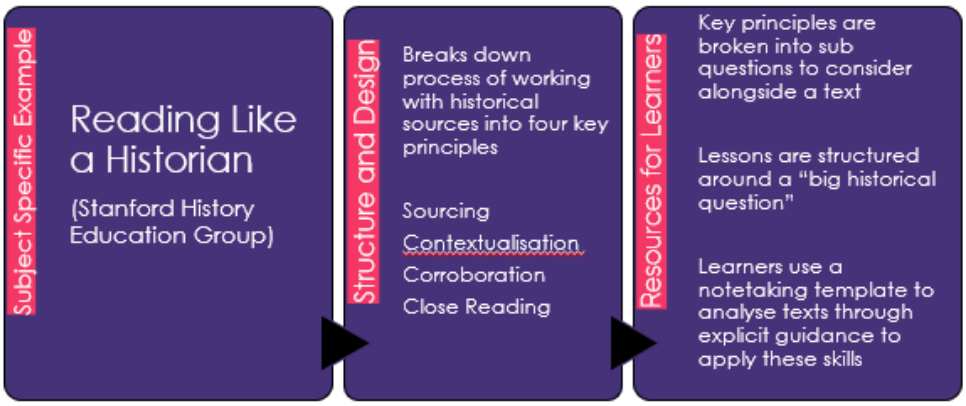
Consider one activity from your course that requires students to think critically. Plan your think aloud, including all of the questions and connections that you are making as you engage with the content.

Prompts	Responses
What is the activity:	
How would you go about approaching the task in a critical way? Write your thought processes.	
Feedback:	

Note: It is important to make the challenges visible!

Providing disciplinary process scaffolds

SHEG – Building Skills and Knowledge Together through Explicit Instruction

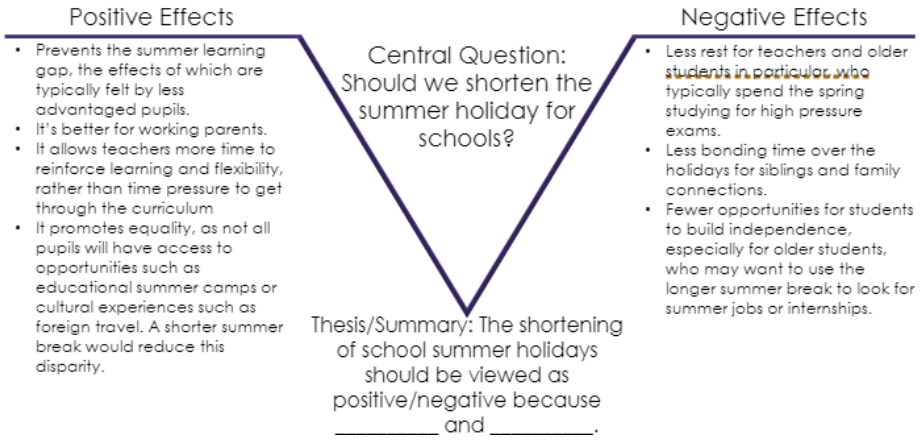


For more information see: https://sheg.stanford.edu/history-lessons

Providing visual scaffolds/ graphic organisers

Argumentation Vee Diagrams

- Nussbaum (2009) used this to help students compose arguments on both sides of a controversial issue and develop an integrated conclusion



Deliberate Practise – Scaffolding

Consider one activity from your course that requires students to think critically. What scaffold can you design that allows students to follow the process. Remember to consider how and when you will remove the scaffold.

Prompts	Responses
What is the activity:	
What would a scaffold for this activity look like? What thinking is it 'holding up'?	
How will you take the scaffold away?	

Summary: Critical Thinking Instruction

Strategy* **Resources from session are on subsequent pages**	**One key takeaway from today:**
Instructor-led questioning	
Models, including think aloud	
Scaffolds: Disciplinary processes Visual scaffolds (Graphic Organisers)	

Notes

Further Reading

- Abrami, P. C., Bernard, R. M., Borokhovski, E., Waddington, D. I., Wade, C. A., & Persson, T. (2015). Strategies for teaching students to think critically: a meta-analysis. *Review of Educational Research*, *85*, 275-314.
- Rosenshine, B. (2012). Principles of instruction: Research-based strategies that all teachers should know. American educator, 36(1), 12.
- HOT or NOT: How to develop critical thinking , Learning Scientist Blog, https://www.learningscientists.org/blog/2017/8/30-1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