



RESEARCH QUESTION –

CAN A CROSS-CURRICULAR ‘CHAIN OF REASONING’ APPROACH TO TEACHING ANALYSIS IMPROVE STUDENTS’ ANALYTICAL SKILLS?

1. DEFINITION OF ENGAGEMENT AND CLARIFICATION OF FOCUS GROUP

I chose this research question because across my career of teaching History, Politics, RS and English, I felt that one of the most significant challenges students faced was learning how to analyse claims, rather than describe information. By teaching several different subjects, I have also seen the benefits of taking a cross-curricular approach to pedagogy. They are more able to see the purpose and relevance of analysis, and their confidence increases as higher-order thinking feels familiar and accessible. My survey to all WHS teaching staff showed that every teacher believed that analysis was important in their subject, and common challenges teachers felt their students had included understanding what analysis was, structuring their responses and going into enough depth.

2. WIDER RESEARCH BASE AROUND DEVELOPING STUDENT ANALYSIS. WHAT WERE ITS ACTIVE INGREDIENTS IN MY LESSONS?

In 2019, the History and English departments at WHS completed a piece of action research on teaching analysis and their article on WimTeach was a crucial starting point for my project. It highlighted that the PEE format is used widely in History and English departments, but without conversations between those departments, slight variations in the way it is taught could lead to confusion for students or an over-reliance on the superficial elements of the framework. Similarly, I found it strange that the similarities between analysis in History and English are frequently discussed in academic literature, but connections to other subjects – particularly beyond Arts and Humanities – are rare. As a result, I knew I wanted cross-departmental collaboration to be at the heart of my project. On the Resilient Educator blog, Caitrin Blake wrote about the importance of explicitly teaching the skill of analysis outside of writing assignments. In her explanation of how to take this approach, I identified various stages of analysis that students needed to work through – identify, infer, justify, connect, review. I found her focus on skills a useful, accessible approach for students and liked that it was a way to verbalise the process of analysis, rather than simply a structure to write analytical paragraphs. I incorporated these stages into the chain of reasoning that I asked teachers in the working party to use during the project.

3. MY RESEARCH METHODOLOGY: HOW I COLLECTED EVIDENCE

The focus group needed to be a Year 7 or 8 class, as they are taught the majority of their subjects together, and based on the common teaching classes of teachers that volunteered to form the working party, one Year 7 class was chosen. In terms of ethical considerations, all girls were informed of their involvement in the project and could ask any questions they wanted, and the project took place for three weeks in the summer term, during which time no formal assessments were set.

In her article, Blake stressed the importance of discussing and modelling analysis, so for the duration of the project, each teacher involved in the working party was asked to:

- Discuss explicitly with the class what analysis is
- Use the ‘identify, infer, justify, connect, review’ chain of reasoning to encourage verbally work through the process of analysis, and use it as a prompt for students to reflect on their work. Crucially, it was never intended to be used as a writing framework.
- Model analysis – either verbally as a class or a written model paragraph
- Refer explicitly to analysis in 3 separate lessons. In my experience, students often appeared to view analysis as a skill largely demonstrated through writing, so I wanted teachers to emphasise the numerous points within a lesson where smaller, often verbal tasks are also using the skill of analysis.

The data collected for this project was largely qualitative; at the beginning of the project, the class completed a survey asking them if they knew what analysis was, if they found analysis challenging, if they thought analysis was important, and to identify any specific challenges. At the end of the project, they were asked the same questions and asked if their thinking about analysis had changed. Teachers also conducted informal pupil voice sessions, the teachers gave their own feedback to me informally during the project, and final reflections written up at the end of the project. Finally, I looked at their written work in their lessons with me; it would have been beneficial to sample written work in all their subjects, but effective data analysis would have been limited by my lack of specific subject knowledge and understanding of each girl’s progress in each particular subject.

4. EVIDENCE OF IMPACT ON STUDENT ENGAGEMENT

There was certainly evidence of the project improving girls’ understanding of what ‘analysis’ means both within and beyond individual subjects. At the beginning of the project, most girls said they knew what analysis was, whereas by the end of the project all girls said they knew what it was. Initially, most students said that they found analysis challenging, but this had dropped to a small minority by the end. Feedback from the girls was quite divided; some found the project unhelpful and could not see connections between different subjects, others found it deepened their knowledge of analysis and could see the connections between different subjects. One student said ‘At first I thought analysis would only be identifying things, but it turned out to be using aspects from past work and knowledge as well’ indicating that she began to move beyond superficial analysis and could take a more holistic approach. Written work did not demonstrate a significant improvement in analysis, but the girls’ ability to analyse verbally certainly developed, with one teacher commenting that ‘I’ve not seen Year 7s be able to articulate analysis in this way before.’ It was particularly pleasing to see a number of students referring to the chain of reasoning as a ‘method’ showing that they saw it as a tool to help them with analysis, rather than a framework to place constraints on

their writing. One girl, who had struggled with analysis throughout the year in several subjects, said ‘learning this new method has helped in my understanding and what steps to do in order to analyse something.’ Even if it was not unanimous across the class, some students feeling empowered to tackle analysis in a logical manner certainly felt like a positive result.

5. EVIDENCE OF IMPACT ON MY PRACTICE (AND THAT OF COLLEAGUES)

Feedback from other teachers was equally mixed; some felt that the girls struggled to grasp analysis any more than they had previously, whereas others said that they had a much better ability to conceptualise analysis. The range of responses from both staff and students show that fully connecting the skill of analysis across different subjects is immensely challenging. The varying levels of success amongst different students and subjects also suggest that a ‘one size fits all’ approach to analysis isn’t effective, supporting the views of the earlier History AR project investigating the use of PEE that we should avoid approaches that are too prescriptive, but an ideal alternative remains elusive. The chain of reasoning can be beneficial in a number of ways – the cyclical aspect that crucially includes a ‘review’ step encourages students to reflect on their analysis and regularly consider if they have gone into enough depth, with one teacher commenting that the project ‘prompted an excellent level of reflective learning.’ Knowing my limitations as a history specialist, improving on the current chain of reasoning would require teachers from a range of faculties working together to produce a cycle that feels useful to us all.

6. EVIDENCE OF IMPACT ON MY PRACTICE (AND THAT OF COLLEAGUES) AND WHAT I PLAN TO DO NEXT:

I am pleased that the strategies focused on considering the thinking process of analysis, rather than the *writing* process, and this is something I would like to explore further, although a more subject-specific focus here could be more beneficial. I regret that I could not recruit Maths or Science teachers for this project – I am still interested in what can be learned about analysis from cross-faculty collaboration, rather than limiting partnerships to the field of Arts and Humanities.

7. HEADLINE FINDING: MY CLAIM

A cross-curricular ‘chain of reasoning’ approach to teaching analysis can improve students’ analytical skills, but it is not consistent.

