Developing a Writing Framework to Guide Students' Writing in Geography

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Abstract

This paper examines the effectiveness of using a Writing Framework to guide students to write geographically for a level descriptor question. The Writing Framework combines aspects of Paul's EOT (Wheel of Reasoning) with Neighbour's Core Questions to guide students' writing. The Writing Framework provides structure in extended writing, but more importantly encourages students to consider the importance of two geographical concepts, 'Place' and 'Space', in their essay writing.

The study involved 18 Secondary 5 Normal (Academic) students. The majority of the students found the Writing Framework useful and showed an improvement in test scores. The results and student feedback highlighted the potential of the Writing Framework to help students in writing geographically.

Introduction

The concepts of 'space' and 'place' are key to understanding geographical thinking. Lambert (Lambert, 2012, 3) defined 'Place' as a specific part of the Earth's surface that has been named and given meaning by people, although its meanings may differ. Places range in size from the home and locality to a major world region. They can be natural (shaped by the environment) or built (constructed by human beings). On the other hand, 'Space' has its own purpose or use and is characterised by location (where something is located on the Earth's surface), spatial distribution (pattern resulting from the arrangement of phenomena on the Earth's surface) and spatial organisation (how phenomena are arranged on the Earth's surface, and why). These key concepts provide valuable insights into the nature of Geography because of their breadth of application to the content studied and the extent to which they are linked to other significant ideas within the subject (Bennett, 2010, p. 38). They help to anchor the subject by giving it a greater coherence, and the students' reference to these concepts in their answers would enhance the quality of geographical thinking in their essay.

In discussing the challenges faced by the team of Geography teachers working on this project, a common observation made was our students' lack of reference to the Geographical concepts of 'Place' and 'Space'. Of particular concern, were

our students' responses to the 8-mark Level Descriptor Questions in the GCE O-Level examinations. Level Descriptor Questions are mostly open-ended questions that require students to assess or evaluate issues or statements. These are broadly assessed based on the quality of skill or understanding identifiable in a student's answer, where students need to demonstrate critical understandings, construct explanations, and make judgements, recommendations and decisions (SEAB exam syllabus for 2204 Combined Humanities). In geographical writing, a reference to place-based factors or differences across space as one of the bases from which to evaluate and assess issues or statements would result in qualitatively more critical and nuanced responses.

However, when students write their answers, they are more concerned in providing facts and content knowledge without reference to their understanding of geographical concepts and ideas. Aside from a lack of geographical thinking in their writing, our students also faced problems structuring their essay questions. The weaker students faced difficulties in developing a coherent answer. They tended to repeat their points and some struggled with how they could begin their answers.

Our research therefore focused on the following area: To what extent does the use of a Writing Framework that emphasizes 'Place' and 'Space' improve the quality of students' answers to level descriptor answers in Geography?

Developing a Writing Framework for Improved Geographical Writing

Paul's Wheel of Reasoning is a graphic organiser comprising eight elements of productive thinking or Elements of Thought (EOT). It promotes logical reasoning and combines both creative and critical thinking skills. According to Paul and Elder (2010), critical thinking provides a way of **deeply embracing content intellectually**. Students need to be able to **identify the parts of their thinking and assess their use of these parts** (Paul and Elder, 1997). The elements act as **natural scaffolds** that can stretch students' thinking to higher and more sophisticated levels. So far, there has been little research conducted on the use of EOT to improve Geographical writing.

Neighbour (1992, 12) identified five Core Questions that govern the geography discipline:

1. What is the phenomenon?
2. Where is it located?
3. Why is it located there?
4. What impact does its location have?
5. What changes should be made? What ought to be done?

With regular use, the core questions help to facilitate our students' thinking on the geography topics / issues they are tackling. In a study conducted in Brisbane, Australia, Neighbour's Core Questions were applied to a six-month unit of work called *Australian Geographical Inquiries* (Fien, Cox and Fossey, 1984). All students in the class were directed to approach their inquiry through an application of the core questions of geography. It was reported that students readily embraced the core questions as the schema underpinning their inquiries (Neighbour, 1992). The students relied upon the questions to interpret incoming information which guided their reconstructions of the issues. Students used the core questions to help in the categorisation of data collected, organisation of their essays and as a scaffolding for assignments in other

disciplines. The core questions also helped in facilitating information processing through the chunking of information.

The use of core questions further enabled the following to take place:

1. Promotion of dialogue among students and teachers
2. Clarification of the goals of the tasks
3. Increase in students' willingness to make adjustments to their inquiries based on their perceived adequacy of coverage of the core questions.

Leveraging on Paul's Wheel of Reasoning (Paul and Elder, 2010) and Neighbour's Core Questions (Neighbour, 1992), we designed a writing frame to sharpen students' critical thinking skills, and guide geographical writing by helping our students to see a logical progression to answering questions. We also sought to heighten their awareness of the need to apply the geographical concepts of 'Place' and 'Space' in their writing. The framework is anchored upon Paul's Wheel of Reasoning with a focus on the three elements of concept, inference, point of view or perspective and all five Neighbour's Core Questions.

This strategy was inspired by the use of writing frames developed by the Extending Literacy Project by Exeter University (EXEL) which helped students to use 'generic structures' of recount, report, explanation and discussion until they become familiar enough with these structures to assimilate them into their writing repertoire (Lambert & Balderstone, 2010). The writing frame is shown in Figure 1 below.

Figure 1: Writing Frame

Question:	'Tsunami monitoring and warning systems have greatly reduced impacts from tsunamis' To what extent is the statement true? Give evidence to support your answer [8 m]

Big Ideas:

- Identify and understand the command words in terms of how it can influence the thinking and reasoning needed to respond to an open ended descriptor question.
- Identify the key other key words/phrases used in the question to determine the content or scope of the response.
- Do you understand the question and how are you going to approach it? Is it about Causes, Effects or Mitigation Measures?

INTRODUCTION:
- Take a stand (how far)
- Brief summary of stand and main reason (examples - place-specific characteristics or scale) for stand

MAIN BODY:
For each paragraph, insert the following:
- Where is the phenomenon located?
- How does characteristics of location affect the outcome of the phenomenon?

- Provide a perspective that agrees with the statement by explaining place-specific examples of how tsunami monitoring and warning systems have reduced impact from tsunamis. Support with examples* and statistics. → Body Paragraph #1 [Point, Elaboration, Examples, Links]

- Provide a contrasting perspective by giving at least one place-specific example that does not support how tsunami monitoring and warning systems have reduced impact from tsunamis. → Body Paragraph #2 [Point, Elaboration, Examples, Links]

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because of place characteristics. Support with examples* and statistics.

- What are the specific place characteristics (socio-political, economic, physical, etc) that affected the outcome? → Body Paragraph #3 [Point, Elaboration, Examples, Links]

- Where relevant, provide any other factors that could affect the outcome of the phenomenon.

Contrasting Perspectives [EOT – Point of Views + Implications/Consequences + Evidences]

*Examples:
- DCs and LDCs
- Pros and Cons
- Benefits & Risks
- Effective & Ineffectiveness of different strategies or measures
- [Why is it located there? What impact does its location have?]
- What changes should be made? What ought to be done?

Conclusion:
How have you answered the question?
- Summarise your main ideas
- Weigh & link to the question at issue
[EOT – Inferences] + link Geographical concepts/ideas that are presented in the question
- Conclude upon the question showing a personal opinion/evaluation

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Research Methodology

The methodology used in this small-scale study is 'action research' which includes the involvement of classroom teachers. In line with the Research Onion model proposed by Saunders et al. (2012), action research is considered a mixed research method. Descombe (1998, p. 58) suggests that 'action research' is practical; it is for a real classroom to tackle a real problem in order to directly improve practices (Roberts, 2000).

Both qualitative and quantitative data were collected from a class of 18 Sec 5 NA students in a secondary school. The data collected included:

- Pre- and post- tests to observe the effect of the Writing Framework on the quality of students' Geographical writing. The tests centred on students' ability to answer 8-mark Level Descriptor Questions with similar question stems focused on the geographical concepts of place and space. For example, students were asked to answer questions like *"Tsunami monitoring and warning systems have greatly reduced impacts from tsunamis." To what extent is the statement true? Give evidence to support your answer* and *"Land use regulations have greatly reduced*

impacts of earthquakes." To what extent is the statement true? Give evidence to support your answer. Between the two tests, the students were guided on the use of the Writing Framework, with a focus on the geographical concepts of 'Space' and 'Place' - where the phenomenon is located and how the characteristics of the location affect the outcome of the phenomenon.

- A pre- intervention survey to understand the problems students had in answering Level Descriptor Questions, and their awareness of the usefulness of the concepts of 'Space' and 'Place' in answering the questions. A post-intervention survey was conducted to gather students' feedback on the usefulness of the Writing Framework, and whether they were more aware of using geographical concepts in their writing.

The research team reviewed the quality of the students' answers through a standardization exercise to ensure consistency in the marking

Findings and Discussion

The research suggests that the Writing Framework was useful in helping students answer the Level Descriptor Questions. All students showed an improvement in their scores of between 1 to 4 marks. The majority of the students (65%) indicated that they found the Writing Framework useful. For example, students commented that

It helps me to give a more elaborated answer and to be able to know what is needed to be written in the answer.

The Writing Framework guides me well in knowing what to write in each paragraph, and it helps me to be able to answer well too.

In addition, 75% of the students agreed that the Writing Framework had raised their awareness of the need to use geographical concepts to support their answers, while 60% of students felt they were better able to use geographical concepts in explaining their answers.

The study therefore suggests that this particular group of students benefitted from using the Writing Framework to help them scaffold their answers. It especially heightened their awareness in using the concepts of 'Space' and 'Place' in their writing. It provided students with a structure within which they could concentrate on communicating what they wanted to say. The survey results also showed that the Writing Framework helped students to analyse and rationalise their choice of evidence and the students used the writing framework to perform a self-check on their answers.

Conclusion

While there are several limitations to this study relating to the size of the sample and the brevity of the data collection period, the data suggests that the Writing Framework is a plausible intervention measure for students struggling with answering the open-ended Level Descriptor Questions. The findings based on comparing the scores of the two tests indicated an improvement in the quality of students' writing with the use of the Writing Framework. Students became more aware of what was expected of them and became more conscious of using the geographical concepts in crafting their answers.

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