

How Does Formative, Written Feedback Help Students Improve Their Geographical Writing

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Abstract

Written communication is an essential performance of understanding and critical thought for the Geography student, especially given the assessment objectives of the current national curriculum. The literature affirms that iterative pedagogies that involve formative feedback, such as drafting and process writing, can be effective for developing writing competency. This article discusses the findings of an action research project on the effectiveness of formative written feedback to help upper secondary students improve their geographical writing. The article frames formative written feedback as a constructivist pedagogical approach, and highlights that effective formative feedback should help students improve by meeting their needs for scaffolding, modeling and affirmation. More broadly, formative written feedback is a means for teachers to model for their students a reflective attitude towards learning.

Introduction

As a discipline, Geography is rooted in the tradition of the humanities, which necessitates extended critical discussion of issues from a geographical lens. In the context of assessment, as well as teaching and learning, writing skills are fundamental for conveying this critical discussion, especially as a performance of understanding by the student. Such written

performance is essential, not just as a summative gauge for promotion and accreditation, but also as valuable data that informs the teacher's pedagogy and provides an indication of the student's learning. It is no surprise then that the teaching of writing forms an important part of a holistic education, especially in the humanities. It is also a particularly salient issue when geography students cannot write well, and even more aggravatingly, cannot demonstrate their understanding and thoughts about geographical matters effectively through writing. Indeed, the writing skills of students is an ongoing concern, whether at the tertiary level (Cadwallader and Scarboro, 1982; Gambell 1987), or at the secondary and pre-tertiary levels.

Thompson et.al (2005) and Dummer et. al. (2008) assert that getting students to be more comfortable with writing regularly within the geography discipline can help students with deep learning (Slinger-Friedman et.al, 2012, pg. 180). Many geography instructors argue that writing as part of classroom learning is crucial for students to learn to think like geographers (Libbee and Young, 1983; Slinger-Friedman and Patterson 2012, cited in Leydon et al., 2014) and writing allows students to explore ideas in-depth (Slinger-Friedman et.al., 2012).

In the current context of mainstream education in Singapore, the role of writing

as a means for students to demonstrate competency in thinking and disciplinary knowledge has always been pertinent. Indeed, extended writing is still the main mode of assessment at the GCE 'O' Level and 'A' Level examinations, whether in short, structured answers or in extended essay responses (MOE and UCLES, 2015). Furthermore, the criteria for credit for essay questions can only be evidenced in the written responses of candidates, and the effective communication of these criteria necessitates good writing competency.

For example, the generic descriptors for essay questions in the GCE 'A' Level paper include statements requiring answers to be "perceptive, logical and [have] strong evaluative elements" (MOE and UCLES, 2015). Furthermore, answers need to have "strong evidence of synoptic thinking where knowledge from different topics is synthesized purposefully" (ibid). Clearly, the linguistic facility needed for students to argue logically, evaluate issues perceptively, and to synthesize disparate knowledge is considerable, since all the stated cognitive tasks are, in Bloom's Taxonomy, "higher-order" and require a certain degree of intellectual capacity for expression and comprehension. Also, these higher-order cognitive operations typically engage with concepts of space, place and interconnections within systems in the discipline of Geography, for which spatiality and variation is fundamental to the discipline.

The concern of the Geography teacher in such an educational context, would thus not merely be for his/her charges to successfully achieve learning objectives such as conceptual understanding and critical thinking ability, but also for the development and honing of their writing skills. It is no surprise that most checks for understanding and learning in the

Singapore classroom are traditionally writing assignments. This is particularly pertinent in the 'A' Level humanities classroom, which prepares students to show critical thinking and conceptual mastery through extended discourse in the form of structured essays. Yet is the act of assigning essay questions for students to attempt, and then marking their responses and giving a grade, all there is to guiding them to success in writing? Or are there intervening pedagogies that must complement and substantiate the simple performance task of writing an essay?

In addressing the issue of improving writing, Leydon et al. (2014) point out that the use of clear instruction, effective feedback, and opportunities for revision are key to written assignments as a means of formative assessment for the improvement of writing, and this is also affirmed by the literature on geographical writing in a variety of cultural contexts and levels (Kennedy-Kalafatis and Carleton 1996; Manzo, 2002; Heyman, 2004).

The compelling emphasis on writing as a fundamental skill, and as a pedagogical tool, in the teaching and learning of geography demonstrated in the literature is the basis for the direction of our action research. In essence, our action research investigates this research question:

“How does formative, written feedback help students improve their geographical writing?”

The investigation is primarily centred on analysing the nature and effectiveness of a possible pedagogical intervention for developing writing through formative feedback, and then reflecting on the broader implications of the findings on our understanding of formative feedback.

Feedback and Formative Assessment

Feedback is a fundamental gesture of responding constructively. Both the giver and receiver of feedback have the common agenda of getting information so as to improve. In this sense, the one seeking feedback, whether it is for some form of performance or product, will use it as a vehicle for reflection.

Giving feedback is a socially constructed process, affected by the conditions in which it was produced, distributed, and received (Lea & Street, 1998). Evidence from institutional audit suggests that it is not always done well in higher education (Quality Assurance Agency for Higher Education (QAA), 2006). In more than 40% of business schools inspected by the QAA, feedback was of variable quality, lacked focus, was too brief and provided too late to be of value (QAA, 2001). For the institutions studied by QAA, this might suggest a problem of the lack in effectiveness and even relevance of tutor feedback in positively influencing student performance. The literature confirms the need for feedback to have certain attributes for it to be effective.

Feedback that is formative – in that it can be used by both tutor and student to improve learning, teaching, and achievement – has potentially a key role to play in promoting student reflection. Formative assessment can provide students with the tools to enable them to improve their performance, but the quality of the formative feedback is critical (Black & William, 1998). This is because students need help in making the connections among their feedback, the characteristics of their work, and how to improve it in future.

To best make these connections, good

quality feedback must be not only accurate, timely, comprehensive, and appropriate, but also accessible to the learner, have catalytic and coaching value, and inspire confidence and hope (Gibbs & Simpson, 2004; Sadler, 1998; Weaver, 2006). In order for it to enable learning, students need to understand the purpose of feedback and the assessment criteria for the work (Weaver, 2006) and to be actively involved in monitoring their own learning and progress. Feedback on generic issues has greater potential to feed forward into future tasks (Carless, 2006, cited in Wheatley et al., 2015), though Higgins (2000) contends that many students are unable to understand feedback comments and to interpret them correctly. In extreme cases, student self-esteem may even be damaged by feedback (Ivanic, Clark, & Rimmershaw, 2000); rather than motivate students towards higher levels of achievement, inappropriately worded feedback may prove to be a demotivating factor. Finally, students are concerned by the timing, fairness, extent of feedback, and the lack of development that it may afford (Mutch, 2003). If papers are returned after a module or unit is completed, there is less incentive to think about the feedback (Higgins et al., 2002; Hounsell, 1987).

As it is, written feedback as a mode of discourse is relatively under-researched (Higgins et al., 2002), given the multiple contexts in which it is applied and the multiple factors that influence it. For one thing, written feedback sheets, as Randall and Mirador (2003) have pointed out, also have other audiences (external examiners, internal examiners, and other faculty staff), which suggests that the guiding principles behind how written feedback is crafted need not solely be instructional intentions or learning objectives in a context of teaching and learning.

A range of factors need to be considered in accounting for the opacity of written feedback to its intended audience: The language used in the feedback may or may not be accessible, the lack of debate and dialogue in the process, the power relationships between tutor and student, and the emotional nature of the student investment in writing an assignment all can inhibit understanding (Carless, 2006; Higgins et al., 2002). As a result, students do not find feedback to be routinely helpful (Maclellan, 2001), and may feel so disempowered by not having the opportunity to discuss and to question it, that they disengage from learning from it (Hyatt, 2005).

In the context of this action research it might be useful to consider feedback in two categories: evaluative feedback and formative feedback. On the one hand, evaluative feedback, expresses to a writer how well the instructor's instructional priorities have been met. This type of feedback typically passes judgement on the draft in terms of some abstract, undefined notion of an 'ideal' paper, reflects a preoccupation with sentence-level errors, and takes the form of directives for improvement on present or future assignments. Teachers who provide this sort of feedback may assume that addressing the curricular purpose of the assignment is enough to inspire 'improvement'.

On the other hand, formative feedback (also sometimes referred to as facilitative or intermediate feedback) typically consists of feedback that takes an inquiring stance towards the text. Addressing the particular needs of individual writers, it often consists of questions intended to raise awareness of the reader's understanding of the meaning of the text as a means to encourage substantial revision on the next draft. This feedback is rooted

in the assumption that writers create their own communicative purpose—the story or ideas that they wish to share—beyond the instructional purpose of the assignment that needs to be tapped in order to motivate revision and then improvement. The features and implications of these two feedback approaches are explored in greater detail below.

Current literature suggests that evaluative feedback at the tertiary level and traditional pedagogy have provided little guidance for motivating student writers to look beyond surface errors to develop and to refine their communicative intentions. Instead, formative feedback, given its inquiry-based and iterative nature, might have greater potential for engaging student writers in negotiation over the emerging meaning of their texts. Indeed, the importance for reflection and iterative revision as a means of learning and acquiring deeper understanding is echoed consistently amongst other quarters of pedagogical research. For example, Margaret Roberts' notion of geographical enquiry, founded on a constructivist view of knowledge and learning, emphasizes the importance of student involvement in making meaning through questioning geographical phenomena and reflecting on their meaning making process (Roberts, 2003). Formative feedback as a pedagogical intervention towards the goals of developing thinking and writing, is evidently also founded on constructivist belief about learning: that the feedback is given not so much to satisfy the need for judgement and summative evaluation, but more so as a tool for learning.

While a considerable amount of research has been done on written feedback at the Tertiary level, there seems to be limited literature on feedback at the secondary school level. A study on improving student writing abilities in

Geography done by Boyd, Leydon and Wilson (2014) shares the most relevant concerns of this action research, although it examined first year university students. The study critically examined the effectiveness of writing intervention strategies used in undergraduate courses, and noted the lack of awareness and skill in 'writing to the discipline', that is, writing geographically, among first year students. The study evaluated a process writing strategy involving drafting, marking and giving of feedback before a final draft was assessed, and found that generally a multipronged approach that provided ample platforms for the giving of effective feedback (2014: 155).

Taking inspiration from this study, this action research adopts a similar approach of investigating the effectiveness of a process writing approach as a platform for giving formative feedback, and aims to arrive at a deeper understanding of what constitutes effective feedback. Most notably, the research is motivated by, and concerned with how 16-year-old, Year 4 students in a Singaporean educational contextⁱ view geographical writing and teachers' feedback, with the objective of improving and clarifying our practice as Geography tutors. With the syllabus documents of the GCE 'O' Level and 'A' Level syllabuses explicitly foregrounding the importance of geographical thinkingⁱⁱ, improving geographical writing is naturally a key concern.

Methodology

Having clarified the role of feedback as a pedagogical tool in a constructivist mode for learning, the design of the learning intervention was guided by prior understanding of how process writing can be conducted, with a view of the constraints of a tight curricular schedule. What was foremost in the design

consideration was the vehicle through which written feedback was given. The cover page design provided for the inclusion of 'stars' and 'wishes' - the former referring to warm feedback or positive elements the tutor acknowledged about the student work, and the latter referring to feedback on areas for improvement (Figure 1).

Figure 1: Cover Page

RIVER VALLEY HIGH SCHOOL
GEOGRAPHY DEPARTMENT
Y4 Extended Writing Assignment
Topic: Climate Change

Name: _____ () Class: 4__

Feedback

★	
✍️	

Feedback given by: Ms Low/ Mr Toh/ Ms M Zainab Date:

(RVHS, 2017)

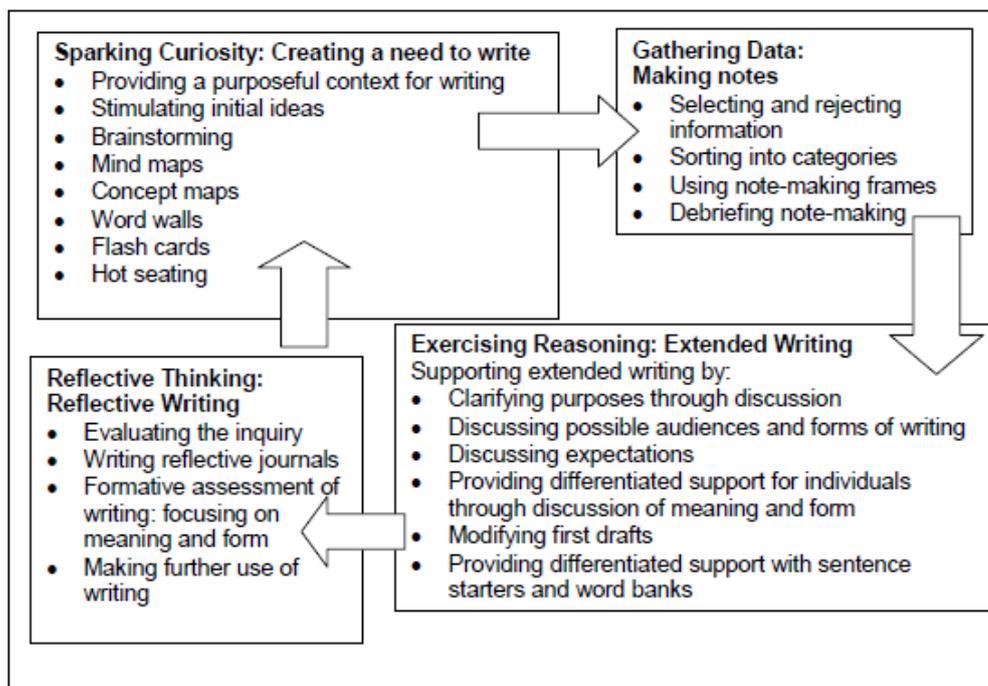
The motivation behind such a terminology and approach was the observation in the literature that feedback and assessment in general reinforces the hierarchy between tutors and students, where teachers 'judge too much, and too powerfully', which is especially problematic when the assessment process is a 'deeply emotional one' (Boud, 1995, cited in Carless, 2006). Higgins et al. (2001), argue that 'students have emotional investment in their assignments' and so would reasonably be affected by the

feedback given for their work, to some degree. Furthermore, grades were not shown to the students on the cover page. This was motivated by such studies as Butler's (1988) on 'task-involving' and 'ego-involving' motivation, which compared the effects of grades and written feedback on student improvement. The findings that students who were graded and given comments for their first assignment showed less improvement than their peers who were not shown a grade but given comments, suggested the negative effects of summative evaluation on students' motivation to improve.

The intervention design extends beyond this cover page. The actual task (Appendix 1) is an extended writing essay assignment where students were required to research,

plan and draft an extended essay answering one of two given questions. These questions dealt with the topic of climate change, which they had started to explore since the beginning of the school yearⁱⁱⁱ. The task was meant for students to demonstrate not only understanding of the issues and concepts related to the topic, but also an ability to discuss these issues geographically. Accordingly, the written feedback from the teachers would address not only conceptual issues but also the importance of invoking the geographical concepts of place, space, scale and human-environment interactions, The flow of the learning intervention is inspired by Margaret Roberts' framework for learning through inquiry with a focus on writing (Figure 2).

Figure 2: Framework for Learning Through Inquiry (Focus on Writing)



(Adapted from Roberts, 2003)

As detailed in Appendix 1, attached with the assignment was a list of guiding questions to help students unpack the questions, as well as a copy of the rubrics used to assess the students. The idea was to be as transparent as possible with the assessment criteria so that students can work towards their intended level of attainment. A pre-task preparatory lesson

to help students unpack the questions and clarify the assessment rubrics was also carried out.

A summary table of the lesson intervention, which shows the time frame and sequence of the assignment, as well as the documents and artefacts involved, can be seen in Table 1 below.

Table 1: Timeline of Lesson Implementation

Stage	Activity	Execution Date	Documents and Artefacts ^{iv}
I	Announcement and administration of assignment	Term 1 Week 5	- Assignment Worksheet Package
II	Preparatory Lesson	Term 1 Week 5	- Lesson Slides
III	Collection of first Draft and commencement of marking	Term 1 Week 9	
IV	Release of written feedback for first draft and overall verbal review	Term 2 Week 1	- Written feedback cover page
V	Collection and marking of final submission	Term 2 Week 5	

Data Collection Procedure

The assignment was given out to the entire cohort of 200 students as part of their continual assessment, with only the final submission assessed with grades. However data was only collected from four classes, contributing a sample of 75 students, which the members of this action research team personally taught, and so more detailed quantitative and qualitative data was obtained from this group. A mixture of quantitative data as well as qualitative data was collected to give a fuller picture of the role and relevance of written feedback, primarily from the perspective of the target audience, the students. These include:

- a. An online written survey seeking both quantitative indicators of

prevalence of views and attitudes about the intervention

- b. A focused group discussion of a selection of the sample
- c. Samples of the students’ work and written feedback received

The online survey was distributed via the school’s learning management system for ease of dissemination and data collation. The purpose of this survey was to find out students’ perception of the quality of our written feedback, as well as their views on the design of the task. The survey consisted of 4 Likert-type scale questions on respondents’ views of the intended functions of the feedback cover page, 4 ranking questions asking respondents to judge the feedback they received based on 4 criteria (‘clarity of phrasing’, ‘usefulness for improvement’,

‘level of encouragement’ and ‘level of detail’), and 2 open ended questions asking respondents what they felt could be improved about the feedback given.

Further qualitative data was obtained through a focused group discussion (FGD) carried out after analysis of the online survey, which highlighted key discussion areas that needed further elaboration and deeper enquiry. Twenty students were selected for the FGD through stratified random sampling from the classes taught by the authors. The basis for stratification was the grades attained by the students for their final submission: group 1 consisted of 10 students who attained grades above B4, and group 2 consisted of 10 students who attained grades B4 or lower. The students were thus divided into 2 groups of 10 students to see if there was a correlation between student perception and approach to the task, and their eventual performance. For each group, one tutor facilitated the

discussion with another tutor observing and making a video recording of the meeting.

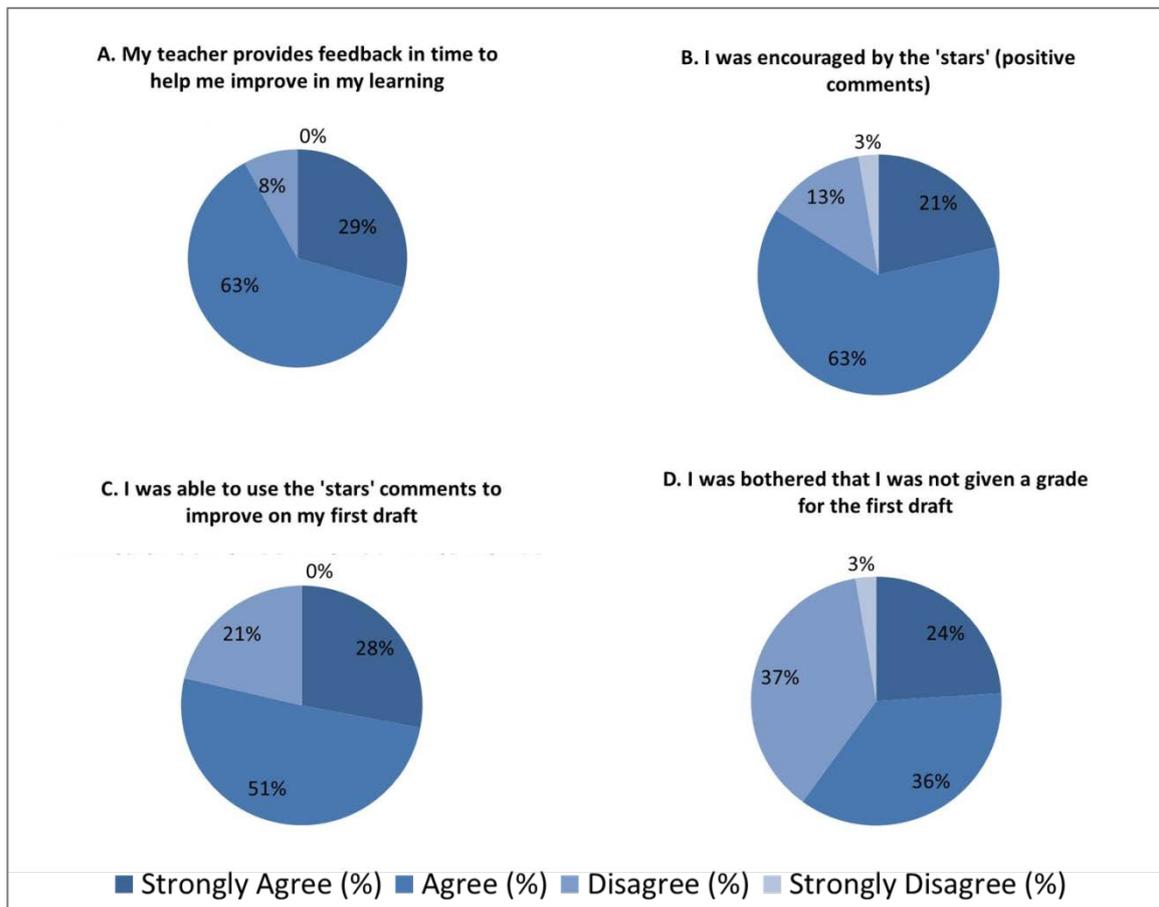
Data Analysis and Key Findings

The analyses of the quantitative and qualitative data involved descriptive statistics, with general trends and prevalence acknowledged in terms of majority occurrences. Given the nature and objective of this action research, this is adequate for gleaning key findings for further discussion.

Quantitative Survey

A few key patterns were observed from the quantitative analysis of the written survey. Firstly, as represented in Figure 3 below, the students’ perception of the timeliness, positivity and usefulness of the written feedback was generally positive.

Figure 3: Responses to Online Survey 1

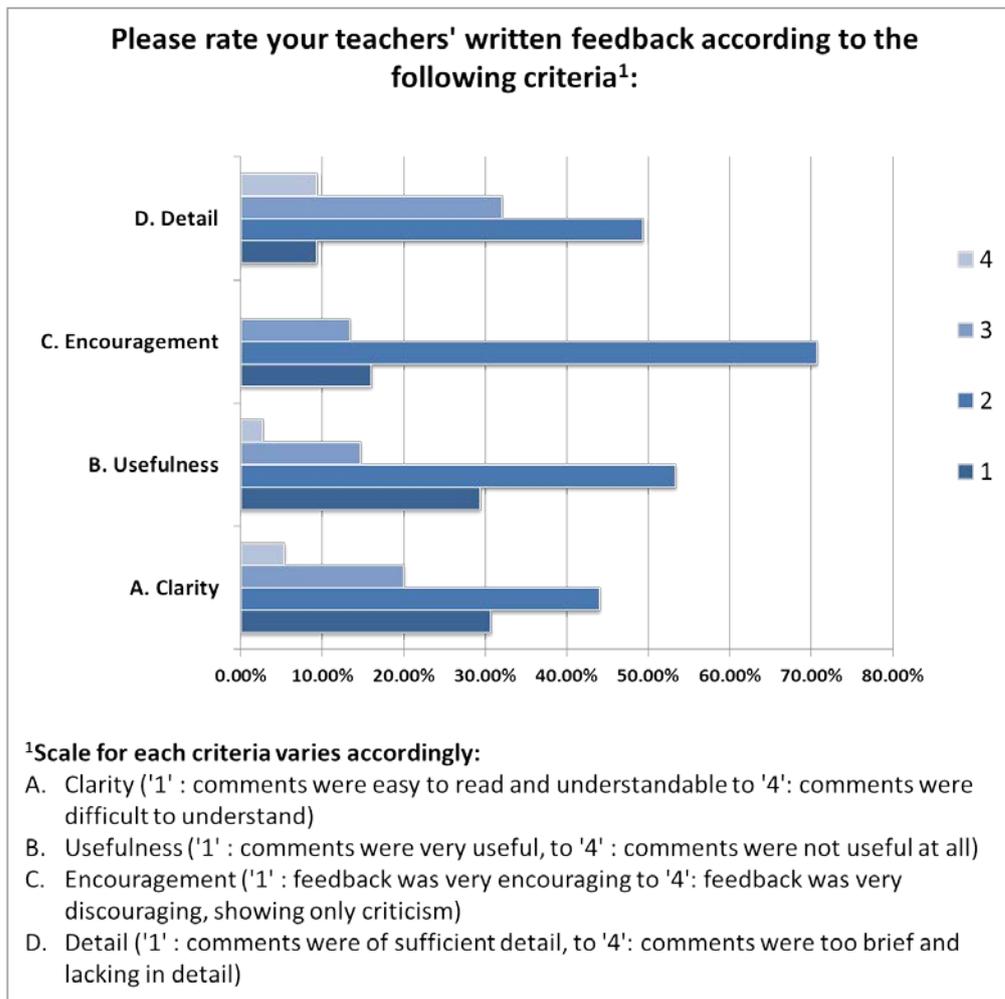


Yet, of particular interest is the strong indication that the students were bothered by the absence of a grade given for their first draft. This ran counter to the assertion by Butler (1988) that ‘ego-involving motivation’, in the form of grades, do not positively influence improvement, even though this finding need not be surprising to those familiar with the highly

competitive nature of the local educational context. The reasons for such a response were probed further in the focused group discussion.

The second set of data from the online survey similarly yielded generally positive responses, as summarised in Figure 4 below.

Figure 5: Responses to Online Survey 2



While all 4 criteria rated above average was seen in the predominance of ratings '1' and '2', the criteria of 'detail' and 'clarity' had significant percentages of respondents who were more neutral or negative in their rating. The highlighting of these criteria as less than satisfactory is echoed and confirmed both in the open-ended

questions as well as the focused group discussions findings.

Figure 5 summarises the input from respondents to two questions: "To help me improve my first draft, it would have helped if my teacher had.." and "If I could re-submit my final draft, I would...".

Figure 5A

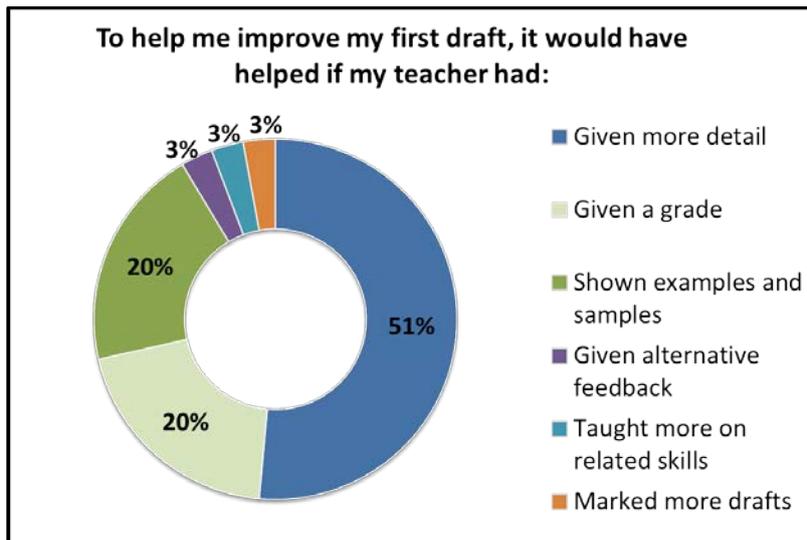


Figure 5B

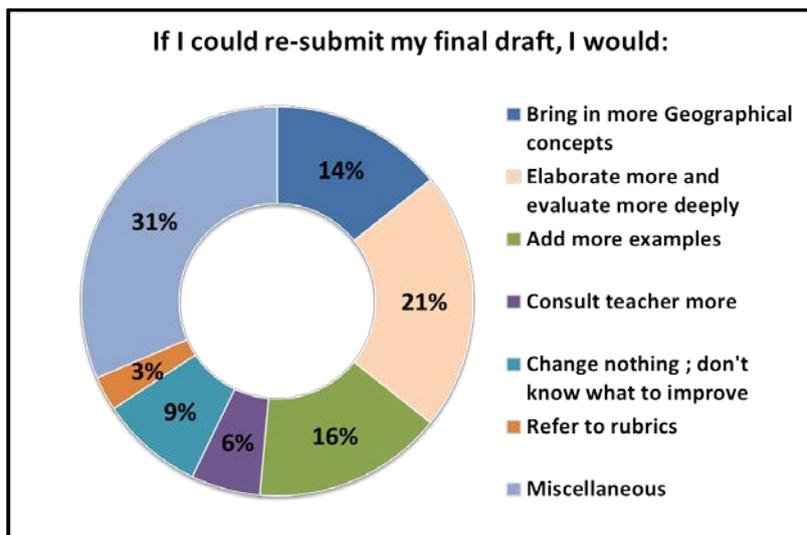


Figure 5: Responses to Online Survey 3

Figures 5A and 5B were derived from a summary of the student responses to the two questions via a categorisation of recurrent ideas as signified by keywords and their apparent meanings. The number of responses in each category were then calculated as a percentage of the total number of all responses. As for unique responses with only a single occurrence or

of unclear meaning, they were categorised as ‘miscellaneous’ for figure 5B.

As seen in 5A, two issues that most students highlighted were the lack of detail in the written feedback, and the absence of a grade. The third most prevalent request was for the teacher to show examples and samples. These also formed the salient

points which were then explored further in the FGD. Figure 5B shows that most students understood what essential qualities a good answer should have, such as geographical concepts, but a worrying 31% said that they did not know how to improve. This further suggested that the written feedback was not always useful as an intended scaffold.

Qualitative Data

The other source of data we gathered from the FGD both reaffirmed some of these points as well as threw light upon what the students meant in the survey. First, **the lack of detail in the feedback which limited its usefulness** was a recurring theme. Responses ranged in their elaboration, although all alluded to the lack of detail, as quoted below:

“The feedback isn’t really specific” – Student F^v (group 2)

“The feedback helped me to realise the

mistakes in my essay, but as to how I should correct them, it was not very clear.” – Student MW (group 2)

“The feedback given in front, at the cover page, was not really very helpful as it was more of a general kind. But for those that are actually on the side of the essay, they were really detailed. For example, how some of my evidences were not clear enough, and how some statistics were lost. So the details will indicate the parts that are lacking, which were more helpful.” – Student WL (group 1)

It is intuitive that the more detailed the feedback, the more informative it would be. However, it is also the relevance and choice of content written by the teacher that affects the relevance and effectiveness of the feedback. Figures 6 and 7 compare the students’ response in the FGD and the written feedback that he/she received from the tutor, and it is apparent that both quantity and quality of the feedback given matters.

Figure 6

FGD Data	Written Feedback on cover page
<ul style="list-style-type: none"> Feedback highlighted areas to work on and improve, but did not necessarily show how <p><i>“The feedback helped me to realize the mistakes in my essay, but as to how I should correct them, it was not very clear.” – Student MW (Group 2)</i></p>	<p>‘Star’(+) <ul style="list-style-type: none"> Good attempt at a coherent conclusion and some good evaluation there. </p>
	<p>‘Wish’(-) <ul style="list-style-type: none"> What makes a good introduction? What purpose does it serve? How might you refine your writing by arranging your sentences in the most fluent and coherent sequence? How would you keep your essay relevant to the question throughout? </p>

Figure 7

FGD Data	Written Feedback on cover page
<p><i>“the feedback and comments were actually quite usefullthe feedback there were comments about the way I should write the introduction, so I actually used that...the feedback did tell me to include an opposing view”</i> – Student WR (Group 1)</p>	<p>‘Star’(+)</p> <ul style="list-style-type: none"> • you have effectively used the concept of scale e.g. short term, long term in your factors to show impact. Good job. • well written content paragraphs with good link back to the Q(estion)
	<p>‘Wish’(-)</p> <ul style="list-style-type: none"> • Deforestation is insufficient as a claim that anthropogenic (factors) have biggest impact. Need to include 1 more factor • Please re-write the intro -> when you properly define the key words in the essay and the aim of your essay

It can be seen that students definitely appreciated more specific and explicit suggestions for improvement, as demonstrated in Figure 7. By contrast, the written feedback showcased in Figure 7 was decidedly less explicit, and phrased more in the form of guiding questions. It can be seen that not all the questions were effective in helping the student to improve; the suggestions for improvement tended to be implicit and inferred. For example, the question “how would you keep your essay relevant to the question throughout?” implied that there were parts where the draft essay veered towards the irrelevant, but did not say where exactly the problem areas were. Also, the question ‘what makes a good introduction? What purpose does it serve?’ directed the student to think about the key characteristics of a good introduction and how it could be optimally used, but, as student MW observed, ‘as to how..., it was not very clear’.

Such questions assume a few things: that the recipient is motivated to reflect as directed to arrive at his/her own conclusions, and that the recipient has sufficient prior knowledge to comprehend the question and move forward independently. The success of such questions depends a lot on the effectiveness of supporting learning experiences, such as prior writing

workshops on writing introductions, for example.

It is interesting to note though, that most of the comments about the lack of detail came from group 2, the students who scored B4 and below, while students from group 1 tended to give more elaboration as to how the written feedback helped them. For instance, student WR appreciated how the feedback helped him improve his introduction and the evaluation in his essay:

“the feedback and comments were actually quite useful...the feedback there were comments about the way I should write the introduction, so I actually used that...the feedback did tell me to include an opposing view” – Student WR (Group 1)

Regarding **the need to show examples and samples**, it is also interesting to note the plethora of ways in which students might use them to improve.

“The sample essay will give us a template or a format. Like for English essays we have the PEEL structure, we would know what to write if given a template.” – Student A (Group 2)

“I will look at the structure of the essay - how the evidence is elaborated on, how

the link back to the question is made, and how geographical concepts are used in the essay.” – Student F (Group 2)

“I will follow the structure of the sample. But if everyone does it like me, wouldn't everyone's essay be similar to the sample essay? Therefore I feel that an essay is not enough. Perhaps you could give more than one essay.” – Student J (Group 1)

A significant number of participants gave honest, if thought provoking responses, such as these:

“To be honest, I would lift the whole thing also. Because if I don't lift, I will fail, and if I lift, I will still fail, so might as well [sic]. Or I would just copy the examples and change the description.” – Student ZX (Group 2, emphasis added)

“Copy, and I will add in my stuff.” – Student KW (Group 2, emphasis added)

Again, there was a greater prevalence of responses from group 1 which offered more constructive uses of the sample than group 2. This may, or may not signify differing attitudes towards learning and assignments in general, and will be discussed in the next section.

Finally, regarding **the need to show a grade together with the written feedback**, the students comments once more signaled their need for more guidance, and for an indication of whether they ‘measured up’. It is interesting to contrast, however, how this ‘measuring up’ looks like between group 1 and 2. While the group 1 wanted the grade as a benchmark from which they could then ‘improve in comparison with their peers’, group 2 needed it as a hurdle; so long as their grades indicated that they had crossed the hurdle and attained the desired level of

affirmation, they would ‘just leave it’ and not make further revision. The following quotes from both groups demonstrates this:

“If marks weren't given, students would not be able to make a comparison with their peers and they would not know how well or how badly they did in the level. Maybe instead of giving the marks, we could be rated on a scale (e.g. how well did we do based on a scale of 1-5) so we would know where we stand and how much [we] need to improve in comparison with our peers.” - Student MJ (Group 1)

“For example if the grade of the first draft is a fail, then I will change the entire essay and write a better one. But if it is good, I will just leave it, in case it becomes worse after I change.”- Student KW (Group 2)

These findings, especially in group 2, echo observations made in the literature about how some students respond to formative assessment. Contrary to what teachers intend for formative assignments, which is to provide opportunities for learning and for self-development, certain profiles of students are observed to ‘only do enough to “get by”’ (Perrenoud, 1991, cited in Black et al., 1998). Furthermore, avoidance of challenging tasks or a preoccupation for cues for the ‘right answer’ from teachers also signal a particular perception of the self as a learner (Swain, 1991; Blumenfeld, 1992, cited in Black et al. 1998). Such perceptions are one of several factors that can influence the effectiveness of written feedback, because it is not just the language of the feedback itself, but also the socially influenced perception of the feedback that determine whether the desired learning objectives are met.

Indeed, a key observation from the analysis is that **the students are**

differentiated in their ability to use the written feedback constructively. While socratic questions might be able to signal to the better students where they could think further (such as those shown in figure 6), more specific and directed feedback might be needed by their peers. The differences in the attitudes, prior knowledge and approaches to learning are implied in the different ways in which the two groups perceived the same areas of feedback. Such difference may simplistically be attributed to differing levels of ability, but the assumption is that ability directly impacts performance.

Yet is the difference between group 1 and group 2 merely that of ability, which itself is a generalisation and requires further definition? As suggested in their differing responses, group 1 students tended to be more positive in their view of the feedback given, and more constructive in their view of what scaffolding like exemplars and samples can do to help. Group 2 students expressed more doubts and inability to use the feedback, as well as the supporting documents, for assistance. At face value, one might profile group 1 students to have ‘mastery orientation’, which is characterised by a generally positive attitude towards learning and ‘belief in the value of effort to achieve mastery’ (Ames & Archer, 1998, cited in Black & Wiliam, 1998), while profiling group 2 students to have a ‘performance orientation’ instead, with a tendency to attribute failure to lack of ability, to think learning takes relatively little effort if ability is there, and to focus on the significance of outperforming others. However it is observed that the preoccupation with ‘outperforming others’ is seen in both groups, as shown in this response from a student in group 1:

“If marks weren’t given, students would not be able to make a comparison

with their peers and they would not know how well or how badly they did in the level. Maybe instead of giving the marks, we could be rated on a scale (e.g. how well did we do based on a scale of 1-5) so we would know where we stand and how much [we] need to improve in comparison with our peers.” - Student MJ (Group 1, emphasis added)

Indeed, the issue of performance orientation might be systemic one, although even in such a culture, group 1 students could see feedback as a developmental tool, while group 2 students might see the same feedback as judgemental and a verdict of their ability to improve further. In a way, the responses of both groups typify a ‘growth mindset’ and a ‘fixed mindset’ respectively.

The application point from this observation then is that teachers must look into changing the mindsets of students about feedback and assessment as a whole. Beyond the scope of this project, but definitely relevant, would be the study of how to identify and address differing mindsets and beliefs about learning in a differentiated classroom.

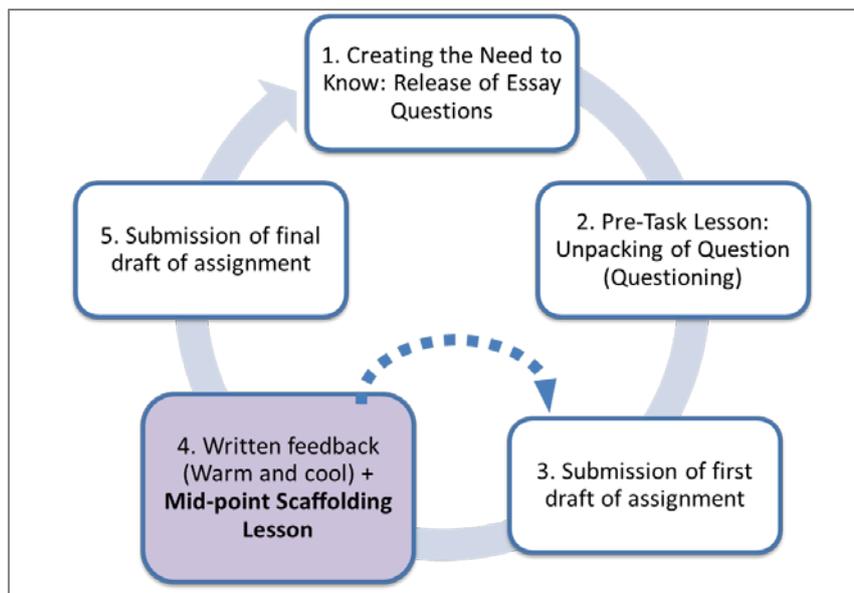
Recommendations

By and large, the key findings from both the survey and the FGDs suggest several areas for improvement in the current iteration of the learning intervention, which is a process driven extended writing assignment built upon principles of constructivism as a mode of learning and developing deep understanding. Regardless of the differing perceptions of the feedback and the task amongst students, the issues of a lack of relevance and details, and the need for rough indicators of performance are explicit and need to be addressed.

The key application to improve on detail and quality of the written feedback and enhance its role as a scaffolding to lead students through the drafting process, would be to leverage on references to items in the assessment rubrics and guiding questions already given to the students along with the task question. Hence, the supportive structure of conducting a pre-task lesson on question analysis and thinking, and the transparent provision of the assessment rubrics, as well as reminder documents on Geographical concepts, will be retained.

Figure 8 shows schematically the flow of this learning task within which the platform for using formative feedback is situated. Again, this flow is inspired by Roberts' cycle of inquiry and with it, its iterative nature as a vehicle for learning. The broken arrow in the figure shows that potentially, a student may go through several rounds feedback and rewriting (stages 3 and 4) as an internal improvement cycle before submitting the final draft, and that is a sign that the student has indeed benefited from this intervention.

Figure 8: Flow of Learning Task



To tackle the issue of having to provide good and relevant detail on the cover page, the task of detailed instruction must be centralised to be more time-efficient. Typically, post-test reviews conducted in class are the most time-efficient ways for tutors to convey their observations and coaching points to everyone. This, however, suffers from its limited ability to cater to the specific needs of particular students that are not applicable to the

whole class. Nevertheless, the merits of a centralised mid-point review that can reach out to more students should be harnessed.

The strategy to maximise the relevance and effectiveness of this mid-point review lesson would be a just-in-time approach to its design and implementation. Conferencing among the tutors after marking the first draft would enable them to surface and collate the most commonly

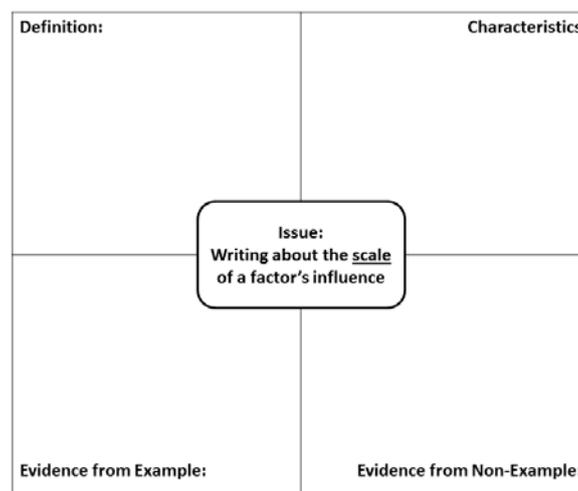
occurring issues, and thus guide their collaborative design of the content and lesson design of the mid-point review lesson that would then be uniformly delivered as a supplement to the written feedback that the students would also receive at that point. While it would not be possible to cater for every single student's unique learning needs, this at least maximises the timeliness and relevance of the feedback that everyone needs to hear.

A variety of pedagogies may be used to facilitate internalisation of the collated feedback from the tutors, beyond just reviewing in point form a list of 'do's and 'don't's. In keeping with the constructivist approach to learning, and also partly as a means of meeting the students' expressed need for exemplars and samples as scaffolds, the strategy of conceptual mastery through the comparison of examples and non-examples could be used. In the lesson, students would be tasked to compare non-examples with

good examples, and so uncover for themselves an understanding of what writing features are desirable and which are not

Such a strategy typically employs the use of a graphic organiser called the 'Frayer model' within which students might construct understanding of a desired concept through comparison (Frayer, Frederick and Klausmeier, 1969). Although typically used for building up vocabulary and mastery of foundational concepts, the approach might still be adapted to facilitate discussion and learning. Figure 9 shows a possible adaptation of the graphic organiser by selecting for the central concept a particular writing technique. The graphic organiser could be used as a template for students to collate reflection findings individually or through group discussion, after being shown example paragraphs and non-example paragraphs.

Figure 9: Graphic Organiser for Mid-point Lesson



(Adapted from Frayer, Frederick and Klausmeier, 1969)

To cater for different ability levels, able students could be tasked to suggest ways

to improve on the good example to make it an excellent one. Such a learning task

would be constructivist in nature, while catering to their need for samples without spoon-feeding them templates that are blindly copied. The specifics of the design and execution of this lesson of course requires more elaboration, but that is not the focus of this paper.

What is crucial and relevant here, however, is that there is explicit allusion in the written feedback on the students' cover page to this writing issue and further clarity could be achieved if the tutor indicates in the written feedback the specific instance in the draft where this issue manifests. Similarly, if the issue is flagged out as a failure to demonstrate a criteria stated in the rubrics, allusion to the specific instance in the written feedback would help the student to bring in his/her learning from the mid-point review lesson to critically analyse his/her own writing.

Finally, further investigation needs to be done on the extent to which revelation of a grade negatively affects students' engagement with the formative feedback. A more tempered approach might be to indicate the level of attainment using the 'Levels of response' stated in the rubrics, so that students can more concretely place their performance. The issue of 'performance orientation' in students is a larger scale issue that perhaps should be addressed, but in the context of this learning intervention, perhaps the benefits of showing students 'where they stand' might outweigh the learning that is potentially foregone.

It is hoped that the next iteration of this learning intervention, that incorporates the abovementioned modifications, would prove to be more effective, and the impacts and effects on learning would be worth recording once more and compared with the findings from this study.

Conclusion

Feedback is important for learning, particularly because it is an opportunity to look at the self and to make an honest assessment that one can take full ownership of. In the process of this action research the value and mechanism of feedback has manifested itself metaphysically, for research as a form of enquiry seeks to gather information to cast light upon a previously unknown area, and action research is particularly notable as a way for practitioners to cast light upon their own practice.

Besides the findings about what constitutes good feedback, which both corroborates and challenges ideas from the literature, the words of Susan Brookhart expresses a key insight made visible in this study: "Giving good feedback is a skill that requires practice", especially because 'feedback is always adaptive' (Brookhart, 2008), and becomes good when it is sensitively adapted to the particular learning objective, the particular student and the particular teacher, among other considerations.

The end goal of successful feedback, however, cannot merely be the student's successful utilisation of the feedback to succeed at a particular assignment. It would be that the student, learning from the modelling done by his/her teacher's practice of giving feedback, develops a self-motivated attitude that actively seeks feedback independently and reflects productively on it as a matter of habit.

This research was undertaken as part of Action Research Skills in General (for Geography teachers) course organised by AST. Supervised by Dr. Tricia Seow.

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ⁱ In the authors' case, these are students with the calibre to qualify for enrolment in a Special Assistance Plan (SAP) school offering the Integrated Programme.

ⁱⁱ This is encapsulated specifically in the "six geographical concepts that underline the motivations behind different sets of questions that interest different groups of geographers: Environment, Place, Process, Scale, Space and Time, and System" (MOE & UCLES: 2015, p2)

ⁱⁱⁱ The learning objectives of this unit are that students should be able to 1) describe how global climate has changed, 2) explain the natural and anthropogenic causes of climate change and 3) discuss how climate change affects people and evaluate the responses to climate change.

^{iv} Visual samples in Appendix I

^v Student names have been abbreviated into acronyms to protect their identities