

Examining the impact of teacher reflections on trialling an approach to building student academic discussion in Secondary Geography

Ee-laine Oh
Shabana Yasmin

Bedok View Secondary School

Abstract

This study examines the reflective journey of two teachers in developing productive academic discussions with their students in Secondary Geography. The aim of the study was to share teacher reflections on the journey to help the students eventually improve their answers in Geography essays. Through a journey of reflective practice, the two teachers explored developing academic discussions to guide their students in developing their abilities to understand question requirements, explain relevant geographical concepts, and evaluate and justify their position with clear reasons. Teacher reflections on the trialling of approaches and resources to develop student academic conversations were used as part of teacher professional development, focusing on the impact of using Teacher Talk Moves and the ELIS resource, the Let's Talk game cards, as tools to facilitate academic discussion. Following this, further reflection was done on the impact of using such tools as well as on a list of success criteria for student essays. The results of the study demonstrated the positive impact teacher reflections could have on developing approaches to benefit student learning through talk.

Introduction

This study stemmed from the teachers' discussion of their students' answers in the eight-mark open-ended question of Geography examination papers. The eight-mark open-ended question is marked using level descriptors, summarised at three levels with each level having particular descriptors. (See Appendix.) It was observed at the end of 2016, after looking through the markers' reports that the students did not score well in this question, often securing mid-range marks (4 to 6 marks) on average. This was a concern as the GCE 'O' level examinations require the students to answer two of such questions, comprising a total of 16 out of 50 marks in the paper. A tabulation of results from two groups of students taking the Geography Elective in 2016 and 2017 in the school examinations is seen in Table 1.

Table 1

Results from two groups of students taking Geography Elective in 2016 and 2017 at school examinations

2016	Group 1 average (Total marks 8)	Group 2 average (Total marks 8)
Semestral Assessment 1	Q1: 4.7, Q2: 3.1	Q1: 4, Q2: 3.2
Common Test 2	6	6
Semestral Assessment 2	Q1: 5, Q2: 4	Q1: 4, Q2: 4
2017	Group 1 average (Total marks 8)	Group 2 average (Total marks 8)
Common Test 1	4.8	5.3

At the department level, the team of five teachers surfaced the following observations. Their students' answers:

- 1) showed that geographical concepts were not well-developed;
- 2) did not reflect the ability to critically evaluate and provide reasons to justify a stand, hence they were unable to achieve the highest range of marks ; and
- 3) lacked the use of examples.

After considering their classes' profiles, the five teachers in the department collectively agreed that giving the students the opportunity for discussion of Geography topics would help them develop better answers. Firstly, the students would be able to reinforce each other's knowledge of Geography content. Secondly, the students would be able to discuss the question requirements in detail and, through discussion, gain a better understanding of the essay question requirements before developing answers. The current study involved two out of the five teachers in the department. The two teachers decided to use teacher reflections on student behaviour in lessons and their written work as the means to track the students' progress.

The study was centred on the research question:

How does the use of teacher reflections have a positive impact on building student academic discussion in Secondary Geography?

Literature Review

Previously, the students had shown a high degree of reliance on teachers and had been used to didactic teaching to get answers to questions or understand textbook content. This was especially so in the graduating year where this form of teaching seemed to provide them with a sense of security. For instance, the students preferred a more teacher-centric approach with limited opportunities for student discussion with the teacher or other students. The rationale for choosing to develop student academic discussion was that the discussion would be a transition towards more student ownership and as a platform for learning from each other. Resnick, Michaels, and O'Connor (2010, p. 163) highlighted that 'without disciplined talk, scientific, mathematical, and humanistic knowledge remains unused'. Zwiers and Crawford (2011) suggested that there were different types of talk and thinking processes in different school subjects which helped the students hold productive subject-specific academic discussions.

The teachers hoped to move away from teacher-centric lessons to ones which were more student-centric to allow the students to take ownership of their learning by giving them the opportunity to express their ideas, to build on each other's ideas and to challenge each other's ideas. The teachers recognised that their role in encouraging dialogue and discussion among the students, especially through the directing of classroom talk to encourage student participation and engagement, was important in helping the students develop their thoughts in geographical content (Alexander, 2008; Howe & Abedin, 2013; Mercer & Littleton, 2007). Using academic discussions, therefore, makes use of language as a medium for articulating ideas as well as being an essential mechanism for forging new ways of thinking and knowing (Vygotsky, 1978). By providing a classroom environment for students to question ideas and opinions from their peers, teachers or textbooks, there is more negotiation and construction of knowledge, rather than knowledge being transmitted directly from teacher and textbooks to students (Alexander, 2008).

The use of teacher reflections to chart the students' progress in this study was chosen as both teachers found merit in discussion to build on each other's thoughts. They valued each other's perspectives on co-planned lessons and were eager to discover the impact on the students from both classes. The teacher reflections also allowed the teachers to succinctly voice their thoughts and clarify what each other meant during the reflective discussion. Seeing value in such a platform, the teachers chose to document the student learning through a reflective journey which would involve discussions on intervention strategies, classroom lessons, challenges faced and brainstorming for solutions for improvement in the quality of classroom discussion and essay writing. The teachers both recorded their discussions on a recording device and documented key points on paper on a weekly basis.

Schön (1996) defined reflective teaching as a process that involved thoughtfully considering one's own experiences in applying knowledge to practice. Such reflection on one's own teaching would allow one to receive information directly from the self-assessment of actual practice. In this study, both teachers collaborated and shared observations and ideas at every stage of the reflection. This process aimed to promote self-assessment, and collaboration for better teaching and better learning among the students.

Schön (1983) distinguished between reflection 'in action' and reflection 'on action'. The former refers to the kind of reflection that occurs whilst a problem is being addressed and the latter refers to the kind of reflection that occurs after the event. Eraut (1995) added on to this understanding by introducing the concept of reflection 'for action', which referred to the kind of reflection that occurs for the purpose of further action to be taken for the study. Taking these ideas into consideration, our area of study covered reflection on several aspects including occurrences in the classroom i.e. reflection 'in action' (student behaviour and responses to the use of tools for academic discussion, and the physical set-up), and after the lesson i.e. reflection 'on action' (lesson design and written work).

In this study, the teachers took on the role of supporting social learning through developing student talk. As reflective practitioners and through a process that involved interpretation and reinterpretation of experiences, the teachers gained knowledge about teaching in the context of developing academic discussions in the Geography classroom to help the students develop writing skills.

Methodology

Fifty-five Secondary 4 students studying the Geography Elective participated in this project. The two teachers involved in the study were Teacher 1, who had nine years of teaching experience and taught

the Elective Geography Group 1 (32 students who scored at least 65 marks in Geography at the end of Secondary 2), and Teacher 2, who had 14 years of teaching experience and taught the Elective Geography Group 2 (23 students who scored between 62 to 64 marks in Geography at the end of Secondary 2). The two teachers were supported by ELIS consultants, who helped to record, transcribe and engage the teachers to reflect on their classroom practices and trial of developing student writing skills.

The teachers adopted the teacher inquiry and knowledge building cycle by Timperley, Wilson, Barrar, & Fung, (2007) to guide their inquiry. An important element of this cycle is the reflective dialogue stage, which is an opportunity for the teacher to critically reflect on the lesson taught by engaging with the evidence in the form of classroom data and their experiences of the lesson to review and refine their teaching practices.

The cycle adopted by the teachers is detailed below:

1. Identifying learner needs
The two teachers had a discussion at the department level with the remaining three department teachers and reflected on their learners' needs. From this discussion and their own reflections, the two teachers identified the focus of developing academic discussions to meet the needs of their learners.
2. Lesson (or task) planning
The two teachers each planned a lesson. In each plan, the teachers indicated the intended area for trialling how academic discussions could help improve the students' answers in Geography essays, in particular for the eight-mark open-ended question graded by level descriptors.
3. Lesson implementation and data collection
The teachers conducted their planned lesson. The ELIS consultants made video recordings and field notes of each lesson and the segment featuring attempts to develop academic discussions in the Geography classroom.
4. Focussed data analysis
The teachers analysed the academic discussions in their planned recorded lesson (video and field notes).
5. Reflective dialogue
The teachers discussed the analysis and reflections with the ELIS consultants, who prompted the teachers to describe and critically reflect on their use of talk and what could have been done differently. These questions included: 'Did I actively build on my learners' responses by probing for reasoning or evidence, or inviting them to explain or justify their ideas?', 'Could I have interacted differently to encourage learner contributions more or help steer the discussion in a more purposeful way?' and 'What could I have said instead?'

Overview of the inquiry cycles

Both teachers participated in two inquiry cycles – one in Term 1 and one in Term 3. The cycles enabled the teachers to evaluate and reflect upon their approaches to facilitating academic discussion in the classroom and the impact they had on student work and then make refinements to their classroom practices.

The teachers used *Teacher Talk Moves* in Inquiry Cycle 1 and the *Let's Talk* game cards in Inquiry Cycle 2. The *Teacher Talk Moves* were developed by ELIS for the purpose of helping teachers build more

communicative classrooms. Within the *Teacher Talk Moves* are question frames for providing prompts to seek clarification such as 'Can you elaborate on X?' and probe for reasoning or evidence such as 'What's your evidence for that?', 'Where did you find that?', 'How can you support that?', as well as questions to ask students to summarise or consolidate their ideas. Specific *Teacher Talk Moves* could be used for different focus areas and, for this study, the teachers aimed to get the students to deepen their individual reasoning and engage with each other's reasoning.

The *Let's Talk* game cards were used as a tool to engage and facilitate discussion among the students in groups of four to five. The aim of the *Let's Talk* card game was to motivate and support students to practise the communication skills needed for productive academic discussion in all subjects including the Humanities. The cards supported communication by providing language scaffolds in the form of sentence stems to help students build and maintain their discussion. Each sentence stem represented a specific 'academic conversation skill' such as stems to build on another student's answer, clarify or summarise. The cards provided prompts for the students to begin, contribute to, or end a conversation. The cards helped the students to develop their academic discussion skills across a range of topics. For example, the prompt 'I would like to add' was used by the students to contribute to the conversation and a card with the prompt 'To summarise' was used to consolidate the group discussions. Students therefore had the opportunity to build contextual knowledge and understanding through academic discussions, to apply geographical concepts, language and ideas, to share ideas with others, to listen and learn from others' ideas and to develop other skills (reading, writing) in post-game activities.

Inquiry Cycle 1

The *Teacher Talk Moves* were used to facilitate productive academic discussions in Geography lessons. This was done with specific pedagogic goals in mind to improve the quality of classroom interaction and learning. The two teachers planned lessons with the assistance of the ELIS consultants, and then enacted one lesson each to facilitate classroom discourse that helped the students develop ideas and produce appropriate student answers. The teachers identified for video recording the stages of each of their lessons that particularly focussed on spoken student classroom discourse.

In reflecting on the lessons, first, the teachers informally analysed their implementation of academic conversation guided by teacher talk through their own reflections about the lessons. The teachers then viewed the classroom video recordings and then engaged in reflective dialogue with each other about their lessons, jotting down the key points of the discussion.

During the reflective dialogue, the teachers drew on prior observations and reflections to think and talk through the following themes or areas:

- Issue(s) or area(s) of challenge the students faced in speaking
- Reason(s) for challenges the students faced
- Question(s) to consider for future action or improvement

Thereafter, the teachers sent the video recordings to the ELIS consultants and scheduled a session with them to discuss the lessons. This session involved clarifying objectives after the lesson, discussing the process of recording and discussing ideas to improve the academic discussion in the following lessons.

Findings from the teacher reflective dialogues from Inquiry Cycle 1

The data collected included the two teachers' reflection notes of the reflective dialogues that took place after the two lessons. The intention of the first recorded lesson was for the students to understand the impact of tourism on Chinatown, explain how various stakeholders had a responsibility towards tourist areas and evaluate the importance of various groups. The extracts of teacher reflections are categorised as shown:

i. The students' responses

The use of recording devices impeded the students' responses. The students were very conscious of the use of the devices and this resulted in resistant behaviour towards discussion, which appeared to contribute to short answers with little elaboration. Therefore the lesson objectives were not met.

Teacher 1: In terms of the students' emotional responses, they were inhibited in the presence of the recording devices. I knew the video recording may not have captured the individual responses so I used my mobile phone and pointed it towards whoever was speaking. Upon seeing this, my students were hesitant to respond and had this retreating body language. Perhaps we could make the recording less obvious in a subsequent lesson?

Teacher 2: Once we do the recording our students know that we are recording them, they will not talk. Rather than concentrate on what I was teaching, they were so affected by the recording devices. They were very self-conscious.

ii. Physical set-up

The video recording could not capture responses well as it was raining heavily. Though a mobile recording device was used, its mere presence hampered student responses.

Teacher 1: I was also too eager to capture the students' responses in view of the rain leading to me having close physical proximity with them which did more of hampering their responses and thus did not stimulate productive discussions.

iii. Lesson design

Although the teachers used planned *Teacher Talk Moves* and provided the students with frames for answering, a lack of routine and unfamiliarity with response frames led to the students answering in ways they were comfortable with. Their ways of answering, unfortunately, did not provide avenues for rich discussion to take place. The teachers also felt that the students could possibly generate discussion in a better way in groups rather than through a teacher-student interaction.

*Teacher 1: The thing with these preferred ways of answering, though more natural and comfortable for them, does not stimulate a discussion and the answers tend to be short and not elaborated. This did not allow for much learning between the students. I think this would work only if a culture of questioning is already present in the classroom. Though the lesson tool we used was *Teacher Talk Moves*, we need to be open to the possibility that this may not work well for our students. Do you think your group will be more comfortable facilitating the discussion on their own?*

Teacher 2: Yes I think they would be communicating more with each other given the opportunity to work within groups. Like for example student Z who is usually so chatty just did not say much

when I was using the Teacher Talk Move. Even after prompting and prompting, I still get one word answers.

Action taken as a result of teacher reflections

The reflective stage of the inquiry cycle helped the teachers realise that their intention, which was to have the students answer the questions in depth, build on each other's answers and develop the academic discussion from there fluently and without inhibition, was not met, with the results being far from the ideal situation the teachers had visualised. The teacher reflections highlighted that the students' answers were short and lacked detail. There was no development of answers or no probing questions asked which would have led to an academic discussion. The teachers recognised that while the presence of recording devices likely impeded the student behaviour and responses, there was also a possibility that the lack of a culture of discussion in the classrooms may have contributed to the limited responses.

In the next cycle of lessons, the teachers agreed to take the following steps:

- a. Create an environment where the students were comfortable to interact.

Amend the set up by possibly having the lesson in an air-conditioned classroom with a recording device on every table. Having just one recording device that was not deliberately pointed at the students could make the students less self-conscious. It was decided to have a trial once or twice in the same room prior to the next cycle of lessons.

- b. Record a pre- and post-discussion of the lesson between the teachers.

The teachers liked the idea of recording the reflective discussion as it allowed them to listen again to recap points which were covered as well as build on each other's points. The teachers could develop their thoughts as the reflective discussion developed as they considered each other's observations.

- c. Change teacher roles from question initiator to facilitator of discussions.

The two-way communication between the teacher and student in the first cycle may not have been the best way to surface academic discussion. There was an element of pressure on the students after the question was posed, since the onus was on the students to produce a response, leading to a lack of discussion. The teachers could be mindful to take on the role of a facilitator instead, letting the students lead the discussion on their own. Here, the teachers needed to allow for exploratory talk among the students.

Inquiry Cycle 2

Following the reflective dialogue of the two teachers from Inquiry Cycle 1, the teachers decided to include the *Let's Talk* cards in the lessons to facilitate the group discussion when the students were collating their ideas. The reasons for this were:

- a. The teachers felt their students were familiar with each other and would work in groups well as they had been classmates for more than a year. They had also been comfortable working with each other in groups in other Geography lessons.
- b. The teachers taking on a facilitator role would make the students feel less intimidated in providing answers even though the lesson recording was going on.

The second lesson for Inquiry Cycle 2 was conducted by the teachers in late July and early August. The intention of the lesson was for the students to collate points from the group discussion to answer various aspects of an essay question marked according to level descriptors. The students were split into groups of four or five and spread out across a bigger classroom to enable clear audio to be captured. Each group had one recording device which was a student's mobile phone. Teacher 1 used two classrooms to allow for more space to help the recording process. The discussions lasted for about 20 minutes with the students sitting around tables, facing each other. Instructions were given to the students on using the cards and the students had a trial round before the actual discussions commenced. The students were instructed to record their discussion of the following question from the 2015 GCE 'O' paper:

'Excess food consumption is less important than inadequate food consumption for individuals and countries.' How far do you agree? Give evidence to support your answer. [8]

By the end of the lesson, the students should have been able to produce an appropriate answer to the question getting at least six marks and above. The students used half an hour in total for the trial round (10 minutes) and discussion (20 minutes). The students completed the essay as homework. Again, the data collected included the two teachers' notes and the recording of the teacher reflective dialogues that took place after the lessons and after them looking through the students' written work. The teachers started the reflection by discussing the question requirements and then looking through their marked scripts of the student work to analyse how the students fared. The extracts of teacher reflections are categorised below:

i. The students' spoken responses

The students were reliant on the textbook for content for discussion. Though they were self-conscious at first, the lack of the presence of a teacher appeared to allow them to self-direct their conversation and become more at ease with giving responses. The responses still tended to be more of a 'presentation style' of talk, with the students carefully phrasing their answers from the textbook content, rather than 'exploratory' or 'natural'. A high level of discussion that extended beyond the textbook content, however, was not observed.

Teacher 1: I think as time went by, they got used to the recorder being there. I could tell that at the later parts of the conversation, it was a lot more casual. I would say that the Let's Talk card game helped them to recap the content from the textbook and that formed the bulk of the discussion which is relevant to the main body of the essay. But it did not help them to reach a higher level of discussion where they consider the question requirement and see if the content can be manipulated or restructured to fit the requirement.

Teacher 2: I agree because the discussion was mainly from the textbook and used the prompts. If we had not recorded the Talk Moves, I think this would have been more effective. They did more of a presentation talk although their response was better than the recording in the previous lesson. Maybe it was good that we were facilitating rather than asking them one to one questions like we did with the Teacher Talk Moves. It made them less intimidated in responding.

ii. Analysis of the essay written for homework

The students did not fully address the question requirements and were selective in the development of answers. This showed a lack of comprehension of the question requirements. Examples to support their written explanation, however, were present.

Teacher 2: The question asked for the impacts of individuals and countries. They did not address the countries part. For inadequate food consumption, they are not addressing how the impact is on the country.

Teacher 1: Some of mine wrote the inadequate one about the individual but for the excess, they wrote about the countries. I will need to remind them that cannot be the case, they need to cover both. I thought the biggest difference I see in their answers are actually the use of examples. Even if their explanation is not good, the use of examples is very clear for every paragraph.

iii. Alternative factors which affected the study

Some possible alternative factors which may have affected the study include: i) a time lag between the use of the *Let's Talk* game cards and the writing of the essay, ii) the introduction of an essay success criteria checklist and iii) the students' own mistakes made at the preliminary examinations. These factors may have affected conclusions about the impact of using the *Let's Talk* game cards on student discussion and writing.

Teacher 1: Maybe because of the time lag between the time they did the discussion and the essay, we do not know for sure if the Let's Talk card game helped them in their discussion and hence give better answers. In terms of wanting to see whether or not the discussion activity resulted in them writing a better essay, we had a break in the continuum so maybe that would not be very justifiable. I think a few things happened in between as well, like the prelim exams on how they did not include the examples and it cost them many marks. That mistake they made may have made them more conscious.

Teacher 2: The PEEL structure [Point, Explanation, Example and Link back to the main point] in the level descriptors [see Appendix] template [success criteria] for peer marking helped because they were able to identify the mistakes of their peers, they were able to comment on their peers' answers and after that they were able to understand their own answers – what are the missing points – and I think that really helped them. They know exactly what the requirement is for each paragraph.

iv. Designing lessons for the following year

One key issue was how the students have a tendency to misinterpret questions. In the following year, the teachers intend to get their students to make their thinking audible through *Teacher Talk Moves* to explain question requirements and reasons behind their approaches to questions.

Teacher 1: Do you remember why we chose to do this project on Talk Moves? It was because we felt that communication would help our students. We thought if the students have a deeper discussion with the Talk Moves, they would be able to give better answers to the open-ended essay question but they are still highly reliant on the textbooks. In time to come, we have to look at how can we help our students think geographically. We will also need to provide them with a structure to help them frame their thoughts for discussion.

Teacher 2: Yes, like the key points that come to their mind when they see the question. I have noticed that this time round, there are a few students in my class that tend to misinterpret the open-ended question. Once they misinterpret the question, they don't get to know which part of the topic they should write about.

Teacher 1: I do have a small handful like that and that was a main mistake they made at the prelim exams. Maybe next year, we can place more focus on question planning. Maybe we can get them

to voice their thoughts in question planning. We should have a situation where the child is confident enough to explain to his/her classmates 'why I choose to answer the question in this way'.

Action taken as a result of teacher reflections

The teachers' intention was to allow the students to self-direct the discussion by using the *Let's Talk* cards as a tool. Through discussion, the students were expected to gain a better understanding of question requirements before developing essay answers. As the cards prompted the students with specific instructions to build the conversation, they were useful in providing the students with a guide to clarify, paraphrase, summarise and add on to their friends' answers. The cards helped to steer the discussion in specific directions with the aim of developing content in the talk further. By conversing with each other, the students were able to pull out relevant content and build on each other's points to further develop ideas for answering the question. The teachers felt that having the students take ownership of their discussion helped elicit a better academic discussion compared to before the study commenced.

The reflective stage of the cycle highlighted the following points for the teachers:

- a) The students were still self-conscious at having to record themselves but it was less apparent than in the lesson in Inquiry Cycle 1 where they were almost averse to the video recording. Working in groups was more comfortable for them and the conversation could flow. There was a high reliance on the use of textbooks rather than personal opinions. They also tended to give more of a presentation style of talk, carefully phrasing their answers from the textbook content to be recorded than exploratory talk which would involve them asking and generating new opinions and ideas. There was also an inclination to pause the audio recording until they were ready to continue. It was likely the students saw this as an evaluative exercise since the teachers did ask for the submission of the recording.
- b) The students were engaged with using the *Let's Talk* cards as a tool to scaffold their discussion. They utilized the prompts from the *Let's Talk* cards. There were attempts to draw on the perspectives of individuals and countries to address the question. Avid use of examples was seen. The students also tried to follow the structure of the essay in their answers. The *Let's Talk* cards helped the students to recap the content required in the discussion. However, the students did not demonstrate the ability to link the content to the question requirements, i.e. a higher level of thinking was not seen. For example, reasons why the students agreed or disagreed with the statement were not present.
- c) In their written work, the students did well with the impacts of starvation and malnutrition as health impacts and these were discussed at great length in their answers. The students could have explored other impacts to give answers that covered wider aspects such as economic impacts since the question required an impact on countries. There was a lack of focus on distinguishing between the Developed Countries (DCs) and Less Developed Countries (LDCs). The conclusion the teachers made was that the students would need more help with the organization of their essay and understanding of the question. A good use of examples were seen. The students scored an average of six marks for the question.
- d) In the reflection on other factors which may have affected the work the students did, the teachers highlighted three factors. The first was that the impact of a time lag between lesson two and completing the written work made it unclear if the discussion from the *Let's Talk* game cards had a direct impact on their writing. The second was that the students may have learnt from the mistakes they had made in the preliminary examination. The biggest difference in answers seen was that, in the preliminary examinations, the students did not include examples in their answers and it cost them marks. In the written work we analysed, however, examples were clearly seen. The third was that the introduction of a structured template for level descriptors for the open-

ended question, which helped the students to be aware of the success criteria, may have improved their answers. Hence, with these factors in play, the teachers could not confidently conclude if an overall improvement in the students' answers could be solely attributed to discussion using the *Let's Talk* cards.

- e) The reflection also uncovered two important points that the teachers needed to work on, which were helping the students to interpret question requirements and the difficulty that the students had distinguishing between the Developed Countries and Less Developed Countries. As the teachers recognised the importance these played in the outcome of the answers, these are areas which they identified for focus in 2018.

Moving on to 2018, the teachers would like to continue using reflective dialogue as a form of professional development. With regard to the students, the reflections have allowed the teachers to discover the need to help the students understand the difference between Developed Countries and Less Developed Countries. In addition, the reflections have also highlighted a pressing problem which was the students' lack of ability to analyse essay questions. This hindered the kind of answers they gave. Therefore, in 2018, the teachers would like to explore the use of academic discussion in guiding the students to analyse questions.

Conclusion

The study highlighted the value of teacher reflections on trialing new ways to meet their learners' needs in the Geography classroom. Through the journey of reflection, the teachers found that they were able to build on each other's thoughts to surface underlying difficulties the students faced with the implementation of new approaches to building a more communicative classroom. The reflections helped the teachers to better understand student behaviour and responses to recording equipment and to support the students as they carried out discussion better in groups. The reflections helped to explore the hypothesis that academic discussions would help the students develop better answers in Geography essays. While the students' test scores did register an improvement (Group 1 mean: 6.4 marks, Group 2 mean: 5.8 marks) the teachers felt the impact was limited. The teachers felt that the academic conversations could not reach a deeper level to show higher level thinking and evidence of question analysis. Therefore, more exposure and a culture of using academic conversations could be further explored in the coming year. It might also be useful to structure the academic discussion in the future to help students have more meaningful discussions where students are able to evaluate, argue, and compare by considering various geographical concepts like place, space and physical-human interactions.

The reflective journey also provided a comfortable avenue for both teachers to voice their thoughts. Having time put aside at a professional development platform to talk about the lesson helped the teachers to build on each other's thoughts and pinpoint key underlying issues such as the lack of conceptual understanding and the misinterpretation of questions which the learners faced. These were pressing issues which hampered student knowledge when contributing to the academic discussion.

These findings allowed the teachers to prioritise the students' needs and recognise the importance of focusing on question analysis in the coming year. One key issue which surfaced was that the students did not fully understand what the question requirement was, resulting in answers which were basically a regurgitation of content as opposed to answering the question appropriately. Therefore, future studies could be on structuring academic discussion around question analysis where students can focus on instruction words and key geographical concepts in order to answer the question.

References

- Alexander, R. (2008). Culture, dialogue and learning: Notes on an emerging pedagogy. In N. Mercer & S. Hodgkinson (Eds.), *Exploring talk in school*. Los Angeles: Sage.
- Eraut, M. (1995). Schön shock: A case for reframing reflection in action. *Teachers and Teaching*, 1, 9-22.
- Howe, C., & Abedin, M. (2013). Classroom dialogue: a systematic review across four decades of research, *Cambridge Journal of Education*, 43(3), 325-356.
- Mercer, N., & Littleton, K. (2007). *Dialogue and the development of children's thinking: A sociocultural approach*. London: Routledge.
- Resnick, L. B., Michaels, S., & O'Connor, C. (2010). How (well structured) talk builds the mind. In R. Sternberg and D. Preiss (Eds.). *Innovations in Educational Psychology: Perspectives on Learning, Teaching, and Human Development* (pp. 163-194). New York: Springer Publishing Company.
- Schön, D. (1983). *The reflective practitioner*. New York: Basic Books.
- Schön, D. (1996). *Educating the reflective practitioner: toward a new design for teaching and learning in professions*. San Francisco, CA: Jossey-Bass Inc.
- Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development: Best evidence synthesis iteration*. Wellington, New Zealand: Ministry of Education. <http://educationcounts.edcentre.govt.nz/goto/BES>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Zwiers, J., & Crawford, M. (2011). *Academic conversations: Classroom talk that fosters critical thinking and content understandings*. Portland, ME: Stenhouse.

Appendix

Level Descriptors

1. GCE 'O' Level descriptors (Humanities: SS & Geography)

Source: SEAB

The last part-question in both Sections B and C includes an open ended question which will be marked according to level descriptors and capped at a maximum of eight marks. Each open-ended question will be marked based on 3 levels. The question in Section A and the remaining part-questions in Sections B and C will be marked using point marking.

2. Level descriptors:

Source: MOE Specimen paper for examination from 2014

Level 1 (0-3)	At this level answers will be generalised or with minimal support if any stand were given at all. Reasoning rather weak and expression may be unclear. A basic answer that has little development. Answers lack examples or other evidence, or it is so sketchy that it adds little support to the answer.
Level 2 (4-6)	Disagreement or agreement will be supported by appropriate details. Or, both agreement and disagreement are considered, but support is patchy so that the answer is not full. Good reasoning and logic in parts of the answer with good expression in places. Some examples or other evidence will be presented to support answers <u>in at least one place in the answer.</u>
Level 3 (7-8)	At this level answers will be comprehensive and supported by sound knowledge. Both agreement and disagreement are considered and well supported. Reasoning is clear and logical with good expression of language. Examples or other evidence to support answers <u>will be extensive.</u>