



Shutterstock: Panoramic view of Singapore Public Housing Apartments in Punggol District, Singapore.

A Geography lesson out of every window: Fieldwork in 50 – Lessons from Singapore

Abstract

This article emphasises the importance of Geography educators having their own pitch or geographical identity to drive pedagogical practice in the Geography classroom. In this instance, the pitch drives practice into inquiry and fieldwork. To make sense of pitch and practice, I draw on my experience in Singapore as the 2019 *Outstanding Educator In Residence (OEIR)* for geographical education. As the OEIR, I taught Geography to local students in neighbourhood schools using the Singaporean syllabus and then delivered a series of Master Classes for teachers about geographical inquiry and fieldwork. An evidence base from the geography education literature and the *Professional Standards for the Accomplished Teaching of School Geography* (Hutchinson & Kriewaldt, 2010; Kriewaldt & Mulcahy, 2010) underpins the sharing of ideas about pitch and practice (inquiry and fieldwork) for the Geography classroom.

A Geography lesson out of every window: a pitch

Why is a pitch for Geography important?

It is inevitable that at least once in our career (if not each year!) we will be asked a question to the effect of 'What is so important about Geography?' or 'Why do we have to study Geography?'. Often such questions are posed by students. Sometimes the questions come from our colleagues. It is our responsibility, as the identifiable Geography educator, to have a resonating and meaningful response.

As Geography educators, we need to identify the distinctiveness and relevance of Geography to ourselves. However, we also need to draw on such understanding to show students and colleagues what it is that makes Geography distinctive, relevant and therefore powerful.

To do so, it is important for us to have clarity about:

- how Geography is defined in policy documents such as the syllabus;
- our own interpretation of Geography – our pitch or geographical identity;
- how our understanding of Geography becomes enacted in pedagogical practice.

In drawing from the British geography education literature, it is evident that as Geography educators we need to develop our skills of 'curriculum-making' (Lambert, 2015) and be clear about our personal geographical identity (Brooks, 2017). In so doing we

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are able to bring content knowledge to life for our students through the way in which we teach this subject. Difficulty in being able to concisely yet meaningfully define Geography can lead to lack of clarity in the conceptualisation, development and enactment of teaching, learning and assessment programs. Therefore, it can become difficult for students to connect with and embrace Geography because the distinctiveness and relevance of the subject is not obvious.

Our knowledge of Geography in terms of what it is as a subject, key aspects of its content, and how it should be taught is best encapsulated and communicated in a pitch. We need to have a hook; a reason to sell tickets for our lessons; a quick one-liner that prompts curiosity, awe and wonder from those who asked 'why?'; an elevator pitch from which we can leverage this subject and from which our pedagogical practice is driven to enable us to become a curriculum-maker (Burgess, 2015; Lambert, 2015). Developing a pitch is not easy. Considering the dynamic nature of Geography and our teaching contexts it may be that we need more than one pitch, or that our pitches change over time. The important thing is to have a pitch and a geographical identity. To have our own buy-in to our subject of Geography. If we don't, who will?

Can we find our own point of resonance to develop a pitch?

In Singapore there is a Subject Chapter of Geography teachers, coordinated through the small team of Master Teachers for Geography at the Academy of Singaporean Teachers. The pitch of the Subject Chapter is "Every Geography teacher a Geographer". Simple. Meaningful. A statement that drives their classroom practice and their communication to peers and students about the usefulness and application of Geography beyond the school context. A signal that all Geography teachers are specialist practitioners who hold a deep understanding about the discipline of Geography. It is the specialisation of study in the discipline of Geography which forms a particular point of resonance and therefore shapes the pitch and geographical identity of Singaporean Geography teachers.

So what is my pitch?

Many of you reading this article may have heard it already: "A Geography lesson out of every window". For me, the window can be literal or metaphorical. The literal window can be the starting point for primary research – a short fieldwork activity such as initial observation notes. The metaphorical window can be a sample of secondary research such as a graph or visual representation. The literal and metaphorical windows become points from which student pose further questions, thus an inquiry



Singapore. Photo credit: Susan Caldis, author

approach becomes front and centre of practice, and the opportunity to conduct a geographical investigation through the use of primary and secondary research methodologies also becomes apparent.

A Geography lesson out of every window signifies and drives what I prioritise in my pedagogical practice in a Geography classroom: inquiry-based learning and fieldwork. The windows bring Geography back to the personal and local scale in the first instance, to help students interpret and make sense of the world around them.

My point of resonance is connected to the rationale from the K–10 Geography syllabus (NESA, 2015):

Through the study of Geography, students are encouraged to question why the world is the way it is, reflect on their relationships with and responsibilities for the world and propose actions designed to shape a socially just and sustainable future... Engagement in fieldwork and the use of other tools including mapping and spatial technologies are fundamental to geographical inquiry, including understanding and observing ethical practices (p. 9).

My other point of resonance is connected to the Professional Standards for the Accomplished Teaching of Geography (Hutchinson & Kriewaldt, 2010; Kriewaldt & Mulcahy, 2010). Alternatively known as the GEOGstandards, such standards identify the specialised and distinctive elements of Geography teaching developed from and within an Australian secondary education context. The GEOGstandards are designed to be used for reflection on and self-assessment of teaching practice (Hutchinson & Kriewaldt, 2010). Standards 2, 3 and 4 are of particular importance to the shaping and enactment of my pitch, geographical identity and practice. See Table 1 for an overview of the GEOGstandards.

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Table 1: *The Professional Standards for the Accomplished Teaching of School Geography* (Hutchinson & Kriewaldt, 2010; Kriewaldt & Mulcahy, 2010)

STANDARD	OVERVIEW
1. Knowing Geography and the Geography Curriculum	As the teacher: understand the discipline including concepts and skills; understand the curriculum; understand geography draws from the social sciences, physical sciences and humanities; and make connections with other curricula and learning areas
2. Fostering geographical inquiry and fieldwork	Allow students to carry out: a range of structured and open-ended inquiries; and undertake inquiry in the field, selecting and using geographical tools
3. Developing geographical thinking and communication	Encourage and support student understanding about spatial reasoning; conceptual interdependencies, interconnections and assemblages; real world contexts at a range of scales; and lived experience as a personal geography
4. Understanding students and their communities	Use local community contexts and personal geographies to connect, enhance and enrich conceptual and perspective-focused learning
5. Establishing a safe, supportive and intellectually challenging learning environment	Facilitate students becoming active participants in their own learning by creating a need to know and creating conditions for students to question complex geographical ideas
6. Understanding geography teaching – pedagogical practices	Teachers: have extensive understanding about pedagogical content knowledge; encourage students to gather information from a variety of sources; use fieldwork; introduce a range of tools to students
7. Planning, assessing and reporting	Plan, monitor and assess geographical learning through a range of formal and informal methods; recognise achievement and provide direction for improvement; use diagnostic assessment to inform teaching practice
8. Progressing professional growth and development	Engage with professional learning communities; Recognise geography is an evolving subject requiring regular updating of content knowledge
9. Learning and working collegially	Actively engage with professional community; share expertise; build a culture of professional improvement; promote geographical education

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Considering your pitch

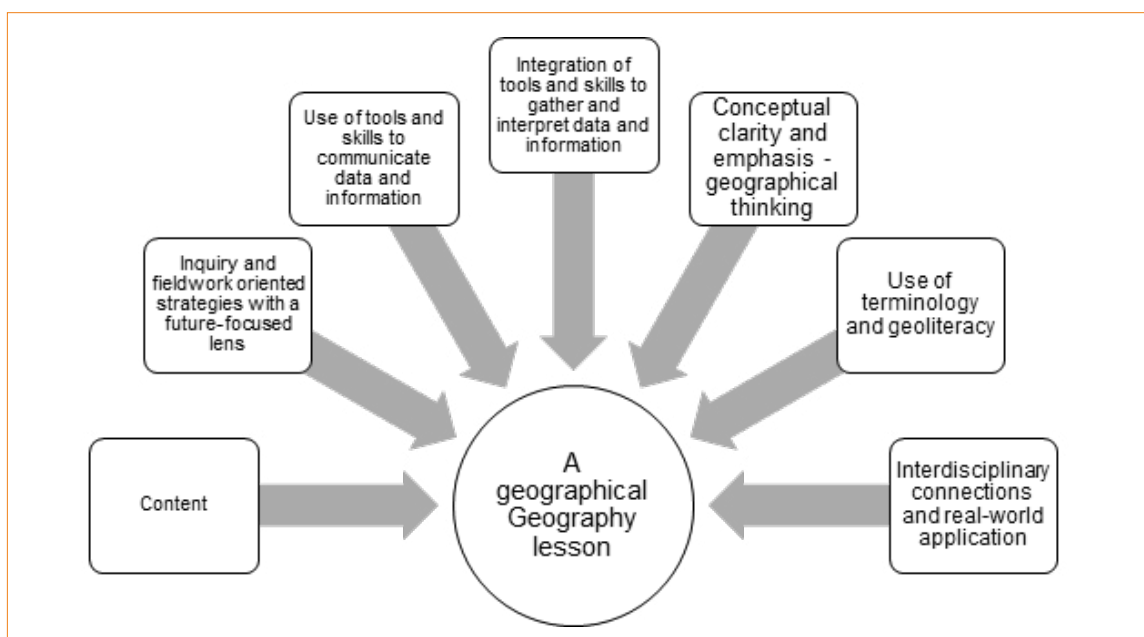
There are several distinctive areas of Geography that may become evident in your pitch and geographical identity. Not all pitches need to connect to inquiry and fieldwork although the pitch for Geography should connect into a unique and specific area of Geography – how else will we obtain a geographical Geography lesson?

Figure 1 below, taken from a 2019 Annual Conference session and article (Caldis, 2019a) about a geographical Geography assessment provides a starting point for

determining an area of pitch. Each item will have resonance with parts of the geographical education literature, syllabus, and GEOGstandards. So, I ask you to pause for a moment and consider the following questions:

- What is your personal pitch and identity for Geography?
- What are the key areas of resonance for your geographical pitch and identity?
- How does your pitch shape and drive your teaching practice in the classroom?

Figure 1: What are the distinctive features of a Geography lesson geographical? (Caldis, 2019a)



Fieldwork in 50: from pitch to practice

In Singapore, the Year 9 Geography classes in neighbourhood schools are large, often between 34 – 40 students. A geographical investigation is typically conducted as a separate unit towards the end of the school year. The geographical investigation unit will often be the only exposure students have to fieldwork.

As the OEIR, it was my role to design and teach a lesson using the Singaporean Geography syllabus that demonstrates how to incorporate inquiry and fieldwork into 50 minutes. In so doing, it reinforces the importance and relative ease of a geographical investigation being embedded into 'everyday lessons' within class time and around the school grounds rather than being completed in isolation.

The syllabus unit was Urban Living, part 1, Introduction – How and where do people live? The lesson focus

was about housing. The lesson was audio-visually recorded and formed the foundation for several Master Classes with Geography teachers, and Dialogues with representatives from the Ministry of Education and also from the National Institute of Education. Having studied the Singaporean syllabus and participated in an observation day at the neighbourhood school, I knew the content description (Housing) and the type of inquiry question I'd be hoping the students would develop related to 'How and where do people live?'. I knew there was a large classroom window with a view straight out to the Housing Development Board blocks of units and communal areas. I also knew there would be access to a class set of ipads and the free apps, Skitch and Weather tracker. Obviously, there would only be a short timeframe (50 minutes) in which to conduct the lesson.

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A Geography lesson out of every Singaporean window enacted as *Fieldwork in 50*

I wanted students to be active participants in the lesson. I knew they had not yet completed the geographical investigation unit so the fieldwork component of the lesson would be a new experience. Overall, the following fieldwork activities would be most appropriate and had to be specifically introduced:

- recording tallies/counts (students to decide what to tally in response to the co-constructed question);
- developing observation notes (in response to what can I see, hear, smell and how do I feel);
- annotating photographs using sketch or drawing field-sketches;
- recording data from the weather app;
- developing interview questions to ask friends or family.

Although the inquiry question from the syllabus was clear, I wanted students to arrive at an inquiry question in this general 'area' as a group rather than me tell them 'this is what we are investigating'. Therefore, I had to set up the lesson to model and encourage thinking and the sharing of ideas.

During the lesson my role was to facilitate geographically distinctive learning through inquiry and fieldwork. The lesson is fast-paced and relies upon student interaction and co-operation, the provision of clear instructions and questioning, and an ability to keep to time.

The broad format for Fieldwork in 50 is below:

- 3 – 5 mins: asking students to **share their observations from the (literal) classroom window** about housing and communal areas (e.g. What do they see?, What are they not seeing? What questions do they have when they look out of the window?) and capturing their responses on the whiteboard (or equivalent)
- 5 – 7mins: encouraging students to contribute their observations from the window and draw on their lived experience and knowledge of the local area as a prompt for **co-constructing a number of inquiry questions** within the 'area' of Housing – How and where do people live?;
- 5 – 7 mins: guiding students as part of whole class discussion to **decide upon the most researchable question** within the parameters of time, minimal equipment, and the need to conduct fieldwork activities such as tallies and observation notes; encouraging students to determine what **a possible hypothesis** might be;

- 3 – 5 mins: **general organisation** of students into groups of 5 students, distribution of equipment, outline of fieldwork activities, outline of expectations (location around school grounds, timeframe, each student to choose a fieldwork activity so that within each group every fieldwork activity is completed)
- 10 – 12 mins (includes movement to/from the classroom): encouraging students to work in their groups and **conduct the fieldwork activities** around the school grounds; assisting students and moving between groups as necessary;
- 4 – 6 minutes: encouraging students to work in their groups to **pool and summarise their findings on a graphic organiser** such as a lotus chart (1 per group)
- 3 – 5 mins: inviting a representative from **each group to share their findings** as part of whole class discussion to determine a possible response to the co-constructed inquiry question and proof/disproof of the hypothesis
- 2 – 3 mins: asking students to consider whether the findings provide a reasonable response to the co-constructed question and what next steps in learning might be?
- 1 – 2 mins: encouraging students to complete an exit slip to determine their key take-aways from the process

Preparing for Fieldwork in 50 (Caldis, 2019b)

Fieldwork in 50 begins with distilling from the syllabus a researchable question or hypothesis that students can investigate within a limited time.

To prepare effectively, teachers need to:

- make meaning of the syllabus to articulate what students should understand and demonstrate by the end of a topic;
- understand the intent of key questions in the syllabus and modify them appropriately;
- know the types of fieldwork activities that would be most appropriate or achievable for the topic in focus and have the necessary equipment available ahead of the lesson (e.g. scaffolded worksheets or apps downloaded etc.)
- understand that inquiry incorporates both primary and secondary research – some topics lend themselves better to fieldwork than others – choose your moments and your topics for the enactment of Fieldwork in 50; and
- explore taking calculated risks and adjusting practices.

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Fieldwork in 50 is intended to be quick and resource efficient; to spark curiosity and/or consolidate information at key moments within a scheme of work. Fieldwork in 50 activities can be completed individually, in pairs, or in small groups. Upon returning to the classroom, students' findings are pooled to determine if there is a possible answer to the inquiry question. A graphic organiser such as a lotus chart/diagram can be helpful for students to summarise their findings as a group. On the lotus chart (EdGalaxy.com), each colour represented a different fieldwork activity e.g. blue = observation notes; red = data from weather tracker app; green = tallies/counts; yellow = interview questions. The co-constructed inquiry question and student generated responses from Fieldwork in 50 can provide a springboard for further discussion and a point to keep returning to as the unit of work is completed.

Lotus chart 1: Basic organisation

Lotus Chart								
			Observation Notes	Quadrant	Weather Trackers/ Apps			
			Annotated Sketches	Inquiry Question	Experiments			
			Interview Questions	Surveys	Counts			
								17

Lotus chart: Extended scaffold

Feel	See	Hear				Temp.	Humidity	Wind Speed
Smell	Observation Notes					Noise	Weather Trackers/ Apps	
			Observation Notes	Quadrant	Weather Trackers/ Apps			
			Annotated Sketches	Inquiry Question	Experiments			
			Interview Questions	Surveys	Counts			
	Which is the most important question?	What would you ask?				People	Flats	Cars
	Questions	Who would you ask?				Other	Counts	Trees/ Vegetation
		Why is this question important?						17

In closing

A pitch and personal geographical identity provides a bridge between curriculum and pedagogy, therefore, it can be used to shape pedagogical practice in the classroom. A pitch and personal geographical identity also demonstrates how a teacher has made meaning of Geography as a complex, dynamic subject to capture the interest of students and colleagues.

A Geography lesson out of every window is my pitch and geographical identity which leans on inquiry and fieldwork. The window sparks curiosity and can be used to prompt or respond to questions arising from the inquiry process. The pitch became enacted as *Fieldwork in 50* which can be used to quickly gather data and information for further investigation. It is also a point from which students can reflect on whether all views from the window (e.g. perspectives from the community) would be the same compared to what is currently seen. A real window could be one found in a classroom, which provides an opportunity to conduct primary research in a *Fieldwork in 50* format and it can be adapted to suit a range of units across time and place. A metaphorical window could be the provision of a visual representation, which can be used to prompt secondary research. Therefore, my pitch of *a Geography lesson out of every window* directs my teaching and learning approaches towards a distinctive area of Geography and contributes to making my Geography lessons geographical. A geographical Geography lesson becomes evident through pedagogical practice as well as content.

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