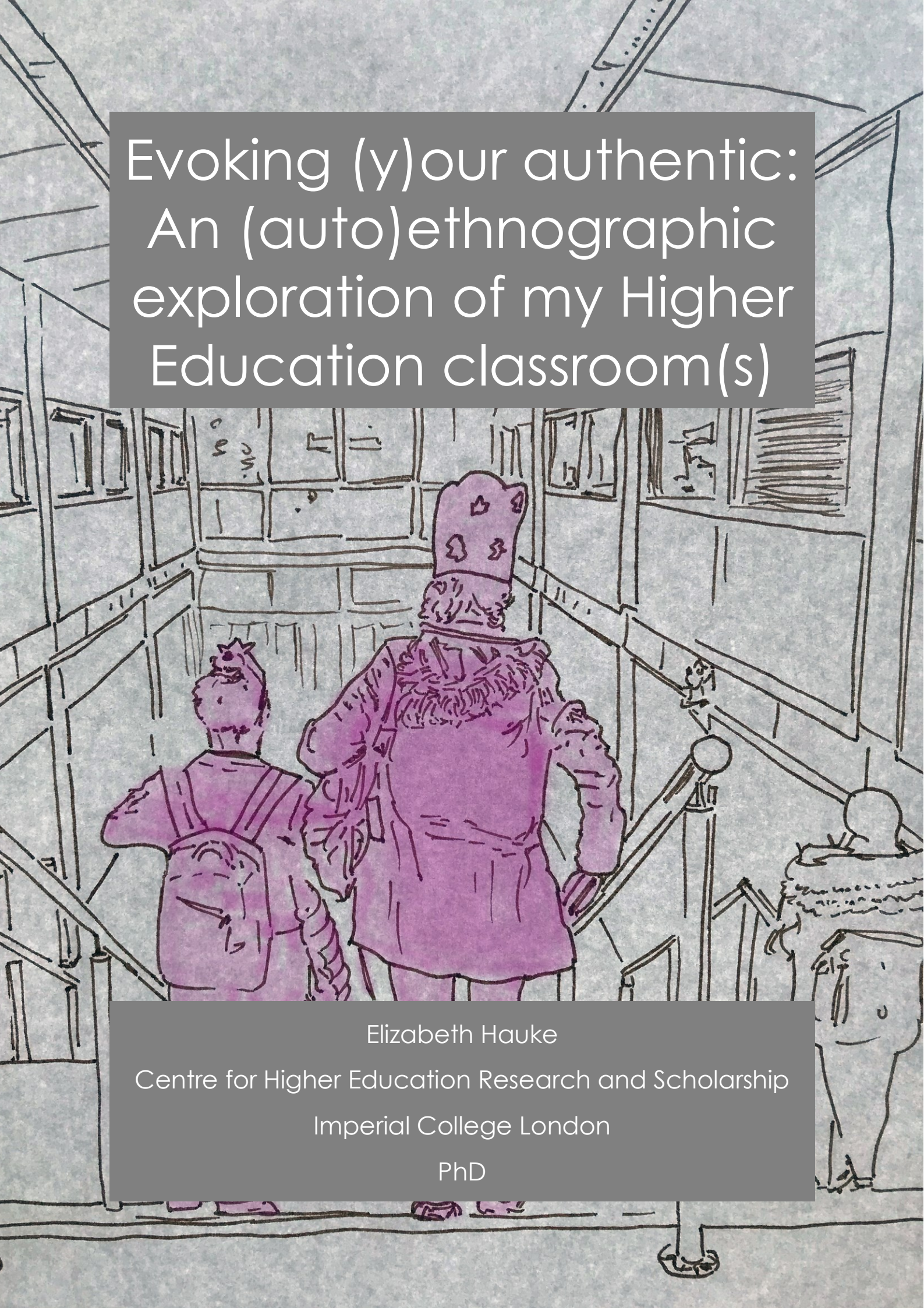
Evoking (y)our authentic: An (auto)ethnographic exploration of my Higher Education classroom(s)



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Originality Statement

This thesis, except as indicated by specific references to or acknowledgements of other sources, is my own original work.

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Ethical Statement

All research detailed in this thesis has been completed with the ethical approval of EERP at Imperial College, London.

Please note that this thesis has been prepared for full enjoyment in print format. Blank pages are intentionally included to allow recto-verso layout.

Abstract

This ethnographic work explores the concept of authenticity in the higher education classroom – specifically in my own first, second and third/fourth year undergraduate Change Makers classrooms. Presented as an evocative auto- and other-ethnography, the research details a cross-sectional insight into my own and my students' experiences during a single academic year at a STEMM-focussed, research-intensive university. As my role entails the design and delivery of the highly interactive, student-centred Change Makers modules, this work specifically explores the interplay between the design, teaching and research domains.

This exploratory work brings the highly reflexive (auto)ethnographic lens not only to the experience under study, but to the conduct of such work, examining philosophical, epistemological and ontological issues arising from the aims, method and analysis within this research. Rather than accounting for, mitigating or otherwise trying to control the messy and problematic nature of this type of highly subjective and qualitative work, the research aims to surface and exploit these very issues to generate deeper, more complex and polysemous insights into our classroom experiences.

Privileging the integrity and wholeness of the ethnographic story-world and the experiences within, the narrative attempts to situate all component parts of the research within that story-world, both revealed and contained by the autoethnographic authorial exposition.

Embracing all of the above, this thesis subverts the norms of academic writing to capture existentialist sensibilities towards the notion, exploration and expression of authenticity. Notably, the work attempts to centre the role, experiences and insights of the reader in the conduct and communication of the analysis, whilst using varied and creative methods to present student voices alongside those of the author within the narrative.

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Data Key

Vignettes

> Vignettes are signified by a 1cm left indent and a sepia coloured left marginal line.
>
> Reported narrative is notated in Century Gothic font.
>
> Reported dialogue is notated in Courier font. This is reconstructed from field notes and as such represents paraphrased dialogue, rather than a verbatim record of the conversation. Speech marks are not used, but the lines of dialogue are preceded by the name of the speaker. Additionally, all research participants are pseudonymised for the purposes of this work.

Drawings

Drawings made from data (photographs or classroom material) may be included to illustrate vignettes, or as stand alone images. They are differentiated from other images included in the text by a sepia border. Images that are included for purely illustrative purposes and that are not considered data or derived from data have a blue border.

Found Poems

Found poems are notated in sepia Courier font (as they contain directly reported speech or writing). The text is organised in vertical columns, to recognise the individual student voices, named at the top of each column. The poems are presented on a background of the entire transcript from which the poems are taken, notated in continuous text, in pink Courier font.

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Acknowledgements



With deepest thanks to all my students - past, present and future. To all those who have taken a chance and dared, risked and shared with me in the classroom. Without your generosity and openness, none of our learning together would be possible and there would be no stories to tell.

And especially to those students from this particular acadmic year, my heartfelt thanks to you for allowing me to write our story and share it beyond the classroom.

I wish that I could include each and every student here, but even if you don't see yourself on these pages, know that your story sits in between and amongst the words within, and is just as much a part of this story as those that are explicitly told.

And finally, to those pictured that have supported me in innumerable ways on this journey, thank you.

Note from the future

I have just finished putting together this carefully crafted account of my doctoral research, life in my classrooms and how this might relate to the concept of authenticity. At every point in the life cycle of this work, I have tried to privilege the notion of authenticity – writing honestly about myself, my students, the world we inhabit together and about this very piece of research itself.

And having the whole work in front of me now and beginning to share it with others, paging from start to finish, I realise that there is something that might help you better navigate and understand me as a researcher, the way I have chosen to write and the context in which this work has been created.

I began my studies in clinical medicine, working as a doctor across London and the south of England. I conducted research in clinical neuroscience and public health before moving into science communication. I struggled to adapt to the less positivistic paradigms of philosophy and narrative studies initially, but when I returned some years later, approaching these same ideas in the field of education, I really began a journey away from my academic roots in the sciences towards qualitative thinking and working in education.

However, this transition has taken place while I have been working (and studying) at Imperial College, a science intensive university. My emergence into antipositivist paradigms of working, has been contained within a positivist envelope. In my work life, I need to be able to justify my decisions, explain my research and stand up for my work within this positivistically conservative work-world. And this has somewhat tempered my transition.

As such, I am imperfectly consistent (I hope you can forgive me), and little clues leak through in my thinking, in my writing and in my very being that betray my roots. They might be understood to represent a lack of experience in this new world view that I am embracing. But they could also be understood to show the breadth of my alternative and prior experiences, and to accurately reflect how they continue to sit within me. It feels authentic and honest to let my fallibility show, and not to

retrospectively erase it, pretending the completion of a transition in my thinking that is still a work in progress.

Both the conduct of the research – from conception and design, through participant observation, analysis and ethnographic reconstruction of the storyworld – and the process of crafting this particular telling of the story have been a lived, embodied and thoroughly consuming journey.

While the inner narratives of the students and our experiences together show my thinking and position in the classroom, the overarching story of the research itself shows my (somewhat shifting) position as the researcher. Reading from start to finish, there are moments of clarity, strongly expressed identity and positionality – perhaps gaining momentum throughout the work. However, there are also moments of insecurity, hesitancy, contradiction and paradoxical thinking that reveal chinks in my armour and cracks in my veneer.

So why haven't I reworked the text? Revised and refined my position retrospectively? Well, I have edited my heart out, where that editing is to clarify my ideas, bring to the surface images and experiences that evoke, provoke or inspire. But I have been careful to preserve my authorship as it occurred. To retain those imprecisions of thinking, those slips in position and naiveties as a researcher – because they are authentic. They reveal the real me, the extent of my thinking and my imperfect, as-I-am researcher self. So that this is apparent to you. And helps you to evaluate my position and my thinking for yourself. And to preserve and share the sense of that journey – that migration across (slightly) shifting ontological and epistemological sands.

These idiosyncratic moments are a part of this work, and I hope that you can ride them out with me as we journey through the story of this research together.

Prologue


BAM!


Falling forwards, towards the light...

In the darkness, I gathered myself up off the floor, where I had slumped off my seat and under the desk in front. The room remained in darkness. A slight twitter of awareness that something had happened. But the lecturer continued to drone on. Demonstrating the features of a chest x-ray that we really couldn't see from our seats in the packed lecture theatre. I felt stunned and really didn't know what had happened. But no one else seemed disturbed, so I sat and waited out the lecture. All the while, my head throbbing front and back.

When the lights came up, I was dizzy and disoriented. My vision blurred, my ears ringing. Leaving the lecture theatre, I had to get straight to a tutorial. I was supposed to be giving a presentation, but I couldn't read my notes. I had a bump on my forehead and a larger bump behind my right ear. As I was feeling the bump, I realised there was something sticky in my hair. And down the back of my collar.

I had a significant head injury and the impact had ruptured the round window (a small membrane) in my inner ear. And the fluid that keeps the hearing (hair) cells alive and that produces the input for your balance system had leaked out. My hearing was severely affected, and I had little sense of balance and was staggering around like I was drunk. The options for treating this were surgery (with no guarantee of success) or twelve weeks of bed rest.

It turned out that the class joker had bowled an apple towards the front wall of the lecture theatre, hoping that the apple would explode dramatically around the lecturer and bring the dreary presentation to a halt. Instead, with a wayward trajectory, the apple had exploded on the back of my head, just behind my ear.

I opted for bed rest, which meant that I couldn't attend lectures for the rest of the term. Normally in lectures, we were provided with the lecture slides and we would take copious notes – trying to get down everything that the lecturer said. We would then go home and try to memorise as much of the information as possible from our notes. I still had the lecture slides, but they didn't make much sense without the annotations. So I had three modules to complete on my own. In bed.

My friends and housemates brought me textbooks, and I read freely. Unconstrained by the content of the lectures, I tried to make my own sense of the topics. I had no list of items to memorise, no facts, nothing broken down into bitesize chunks. I followed my own curiosities, exploring ideas and building my own mental images of how these ideas linked together. I couldn't just 'learn' someone else's developed understanding, I had to create my own. I had to imagine, puzzle, create, revise, adapt and craft my own way through the topics.

As exams came around, I was a little unsure how things would go. I didn't have the comfort of knowing that I had worked to learn the exact material presented by the lecturers and presumably covered in the exam. To my surprise, when the results came out, I had got a significantly higher grade than expected. To this point, my grades had always settled around 64%.

In this set of exams, I was scoring above 80%.

Something had changed.

Dear Reader,

Alice was beginning to get very tired of sitting by her sister on the bank, and of having nothing to do: once or twice she had peeped into the book her sister was reading, but it had no pictures or conversations in it, "and what is the use of a book," thought Alice, "without pictures or conversations?"

Alice's Adventures in Wonderland (Carroll, 1865: p9)

Bearing in mind Alice's concerns, you're in luck. You're about to read a story that includes pictures, conversations and plenty more besides. It is a story that explores what authenticity might mean in the higher education classroom – specifically, in my classroom throughout a single academic year. It is not my story, or the story of my students, but rather the story of what happens between us, amongst and around us. What occurs when we spend time together, exchange ideas and strive to learn together. But this is not just a story, it is also my doctoral thesis.

Can a thesis be a story and vice versa?

In its broadest sense, a thesis is the main idea, argument or theory being put forward by a person or group of people within a piece of writing or speech (Cambridge Dictionary, 2019). Depending on whether you are using American or British English, there might or might not be an additional emphasis on the attempt to support or 'prove' that idea. In its more specialised form, a thesis is an extended essay or dissertation written to present original study of a subject for a university qualification such as a doctorate.

The exact nature, content or format of a doctoral thesis varies greatly between disciplines, especially between science disciplines (where theses tend to have a more standardised structure and style) and arts disciplines (where there is much greater variation). However, all doctoral theses should include some hallmarks of high quality academic writing.

The fundamentals of good academic writing appropriate for a doctoral thesis include presenting (McMillan and Weyers, 2013):

- An accurate account of the research process and findings
- Easily comprehensible material with clarity of style and format
- Exposition of the key issues that moves from areas of established knowledge to areas that require exploration
- New knowledge to the field of study
- A transparent approach that avoids unnecessary bias
- A principled and ethical approach to methods and data collection
- Awareness and recognition of existing scholarship in the field
- Expressions of tentativeness and recognition of the limits of knowledge

On the other hand, the nature of a story is a little harder to pin down. Tilly (2006) makes a helpful start by differentiating a technical account from a story. In its purest form, a technical account relates a series of events to delineate cause and effect and facilitates communication within a group of specialists. For this reason, technical accounts build on previous definitions, accounts and findings without detailed references. This can make them impenetrable to outsiders. In response to this criticism, and because technical accounts are often used by non-specialists to make policy decisions, technical accounts have sometimes taken on a more narrative tone, with a step by step explanation of the reasoning within the account (Tilly, 2006: p130). The use of narrative and the chronological relation of sequences of events can make the technical account feel like a story. However, although all stories contain narrative, not all narrative is a story (Frank, 2012). Stories are non-specialised, and if "technical accounts depend on expertise, stories […] depend on imagination" (Frank, 2012: p41). Further, while technical accounts are driven by events, characters are critical to stories.

Structural elements are often considered vital to stories, with perhaps the simplest story being the classic 'The baby cried. The Mommy picked it up.'. This has the elements of complication (the crying) and resolution (the Mommy picked the baby up), as defined by Sacks (1974). Further elaboration of this type of structure is often credited to William Labov, in particular in his much cited work with Joshua Waletzky. They described a narrative structure that is often considered the basis of a story, including the following elements (Labov and Waletzky, 1967):

1. Abstract – an announcement of the story to be told
2. Orientation – the location of the story in time and place and introduction to the key characters
3. Complicating Action – something that happens to disrupt the status quo
4. Resolution – something that occurs to restore the status quo
5. Evaluation – review of what has happened
6. Coda – a mark of the end of the story

However, while these narrative elements may help to create a story, Frank (2012) argues that in themselves these features do not create successful stories – the kind that people want to tell and want to read. He describes the Labov and Waletzky structure as the 'horizontal dimension' (p42) of a story, whereas he places much importance in the 'vertical dimension' (p42). This vertical dimension includes "characters, point of view, genre, suspense and […] imagination" (Frank, 2012: p42).

So where does this leave us with regards to what you are about to read? Well, I hope to present a coherent set of ideas that advance an argument alongside a rigorous and accurate representation of my research process. As I am relating human experience, there will necessarily be characters, and together we navigated some pretty complex learning experiences rife with complicating actions and resolutions. While I will be telling this story in what I hope is an accessible style, there will be specialist theoretical content more akin to a technical account. However, this should be easy to navigate as it will be explicitly linked to the more everyday material of life in my classroom.

And, as you will no doubt shortly become aware, I am a little bit obsessed by the idea of authenticity and coherence. So the structure of my 'thesis' will be contained within the structure of my overarching 'story'. I don't want to introduce theoretical ideas or relate research processes in a way that interrupts or disrupts the story, so I will attempt to embed all the technical requirements of this doctoral work within the self-imposed aesthetic requirements of this work of story-telling.

Back to Alice, pictures and conversations

Another reason why story-telling is really important to me and to this thesis relates to the nature of the research I have undertaken and the account that I am presenting. This is an ethnography – an observational study of a group of people culturally 'other' to the researcher. Emerging from the field of ethnology, where researchers based their analysis on the accounts of missionaries and travellers returning from distant lands, ethnography represents the integration of first-hand observation with "theoretical and comparative interpretation of social organisation and culture" (Hammersley and Atkinson, 2007: p1).

I have been observing my students, our learning encounters and the learning activities within my classroom over an entire academic year. In addition to my first-hand observation documented as field notes, the classroom-based nature of the observation means that I also have access to secondary observation (for example of students working remotely online), found material such as students' written work and assignments, photographs, video clips and written communications such as emails and message boards. Furthermore, as I myself am a part of the interactions that I have been observing, I have also kept a detailed observation of my own participation in these activities in the form of autoethnographic field notes.

The term 'ethnography' itself actually refers to the written account that is produced as a result of this observational work rather than to the observation in and of itself. So within this qualitative research method, it is the writing and telling of what has been observed that is privileged (Humphreys and Watson, 2009) – the storytelling. And a key to the storytelling of ethnography is summarised neatly here by Britzman (1995: p229):

> "First, ethnography is both a process and a product; there are methods for how to go about narrating culture, and these social strategies promise a text. Second, good ethnographic texts tell stories that invariably embody qualities of a novel. Implicitly, ethnographies promise pleasure or at least new information to the reader. Third, an ethnography takes the reader into an actual world to reveal the cultural knowledge working in a particular place and time as it is lived through the subjectivities of its inhabitants. Such access persuades readers that they can imaginatively step into this world and act like a native, or, at the very least, understand the imperatives of cultural assimilation. These textualized qualities appear seamless because they blur traditional distinctions among the writer, the reader, the stories, and how the stories are told."

I think that for me, one of the key elements here is the compelling nature of the story telling (the novel-esque qualities). The reader must want to read more, must be drawn as effortlessly as possible through the text, freeing them up to engage, imagine, dream and, ultimately, gain pleasure or satisfaction. And I think this is

largely achieved by the way that the reader is drawn into the story world of the text. Britzman (1995) describes this as the taking of the reader into the actual world – so a comprehensive and coherent story world is required both to contain and to liberate the reader. Providing cues that allow the reader to adequately imagine a coherent world that relates to a world they do or could know, contains their engagement with the characters and the sequence of actions in the story. At the same time, having permission to imagine this world in their own way is key to liberating the reader to make their own understandings and meanings from the stories being related.

As such, I have made specific choices with regard to how I create this story world. There will be much description (or as Geertz (1973) would call it 'thick description') of events and actions, along with the inclusion of conversation and dialogue. As this work progresses and unfolds, issues of accuracy, reliability and reproducibility in the context of ethnographic work will be explored (relating to Joas' (1993) idea of truth, Humphreys and Watson's (2009) concepts of correspondence and process and Lubet's (2018) testing of ethnographic rigour by trial). However, for now, I just want to say a word or two about the pictures (as they were so important to Alice).

At the end of this ethnographic observation, the 'data collection' part of this research, I had accumulated a large photographic record of the shared learning and teaching experience being documented. Some of these photographs were taken by me, some by the students. The photographs were sometimes taken for pedagogical reasons or to document our working process to enable student reflection, and some were taken for more social reasons.

These photographs would seem an invaluable resource in providing access to the story-world. A picture is worth a thousand words and all that. However. A photograph is actually worth even more than a thousand words. The amount of visual data present in a photograph is vast. And if that photograph is being used to illustrate lived 'experience' rather than the exact composition, content and detail of a particular scene, then perhaps it is not the most useful or inspiring version of the image to choose. Remember that the reader of a story needs to feel free to imagine, to see for themselves.

So instead of including original photographs in this story, I will be including drawings made from the photographs. The drawings will be curated versions of the photographs – sepia line drawings of the main detail of the image, with a pink tint used to highlight the key interest within the image (and to stop the line drawings looking too flat and hard to decipher in their abstract nature). This will allow the communication of a sense of the scene, without the exactitude of excessive detail. I think that this is closer to the 'experience' of that moment in time, than a photograph. If I were to describe the scene from my experience, I wouldn't get close to the level of detail in a photograph. That detail is not relevant to the experience. However, the image created from the photograph is able to convey the 'essence' of that experience in a different way.

And with an additional nod to authenticity, I really like the fact that the process of creating the line drawing is as subjective as the process of selecting words and writing a story. Whereas we are used to recognising 'authorship' in writing – and perhaps wondering why the author chose to express things in a certain way, it would be much harder to recognise this authorship in a photograph. Although the image itself might represent 'objective' data, in that it hasn't been altered, there was authorship in the moment of taking the photograph, and then in the selection of that photograph from the entire photographic record. Why that image? However, by creating a drawing from the photograph, that authorship becomes explicit. You know that I have created that image for a purpose. It carries some authority of correspondence to the experience because it has come from the original photograph (more on the exact method for the drawings later), but it also wears its authorship on its metaphorical sleeve. My classroom didn't happen in sepia with a pink tint, so you know this is a constructed image. And in that construction I have been free to direct your gaze to what I as the author of this story want you to consider. But I have also been able to strip out extraneous detail to simplify the image and create space for you to imagine and create your own mental images of what occurred. Or at least that is my intention. And this visible authorship, for me, feels like an authentic way to represent experience. I am not pretending a level of accuracy or representation that is not possible for an evaluation and exploration of experience.

What I think about when I think about writing

Before I knew how to write, well before I enjoyed writing at least (I might still not be very good at it), I used to think that writing began and ended with the words you put on the page. You selected words to convey a particular meaning, and you tried to add meanings together to create an argument, or a compelling story. But my process was linear - just selecting words and creating chains of meaning on the page. Sentence after sentence, from start to finish. Wrangling external ideas and words to make sense to and for others. And nothing existed apart from what was written down. That was the sum total of my thinking on the matter.

Now my experience has changed. When I started to write in the field of education, I felt completely differently about writing. I was no longer plucking desperate words out of the air and stringing them together. I started having visions. Not in a weird way, but visions all the same. I wasn't writing to fulfil an assignment brief, or to satisfy my boss. Now I was writing because I had something to think and something to say. "For me, writing is a gesture of the body, a gesture of creativity, a working from the inside out" (Anzaldúa, 2015: p5).

I would 'see' all the ideas that were interesting, inspiring and intriguing, dancing in front of my eyes. As I read, thought and related these ideas to my experiences in the classroom, the ideas would take a three dimensional form. Just in front of my eyes, slightly above my line of vision. The ideas would relate to each other, structures would form. A world would be created, with passageways, shapes, hidden chambers, links and meanings. I could hold and manipulate the whole creation, move it around. I could create shapes within. I could enter this little world, paddle around and experience the ideas existing, being and relating.

When I sat down to write, I would spend time plotting routes through this world. Creating route maps to navigate series' of ideas smoothly and logically. Using and relating the different concepts, theorists and my own experiences as stepping stones. And not minding about all the ideas that would not be included in that particular telling.

And this is how I have seen this particular thesis-story-world grow. Right in front of my eyes. Everything I have read, experienced and wondered. A swirling mass of ideas. A form has developed. And there are many, many intricate and fascinating individual pieces. Some will make it out of thesis-story-world onto the page, some will not. But they are all as important as each other. Each piece supports other pieces, inspires other pieces, elevates other pieces.

The size of this world had begun to intimidate me a little. I had begun to wonder if I would be able to navigate such a rich and complex world, make sense of it, and create compelling arguments and stories. Do it justice.

Then one night, long after I should have been asleep, I was watching a documentary about the work of the artist Olafur Eliasson (Olafur Eliasson: Miracles of Rare Device, 2019). I was somewhat interested, and somewhat dozing off to sleep. And then the programme visited the Harpa concert hall in Reykjavik, designed by the Danish firm Henning Larsen Architects. Although Eliasson himself is not an architect, elements of his art and design work have been increasingly incorporated into building designs, such as in this case. Eliasson's design of an unusual multidimensional glass shape that tessellates, had been used extensively for the structure of the building.

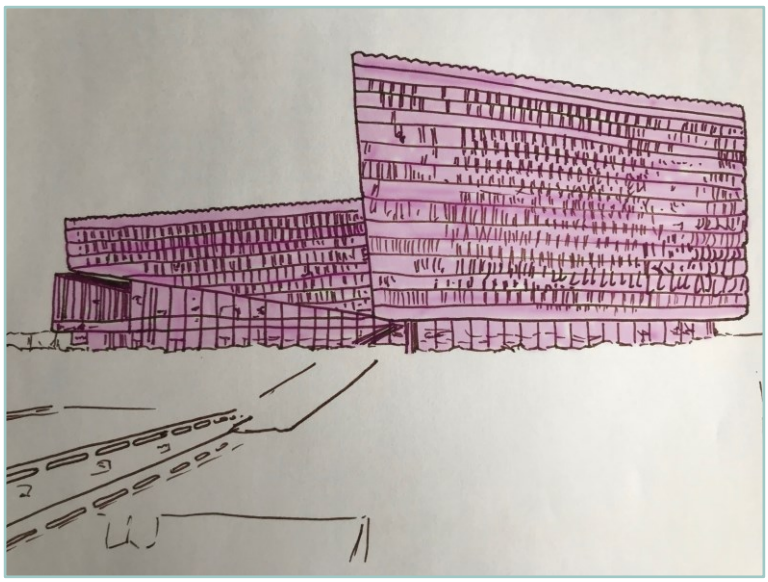


Image 1: Harpa Concert Hall, Reykjavik

The strength of the tessellating glass blocks meant that few supporting internal structures were needed, leaving the internal layout an infinite range of possibilities for the architects. The building is a symphony of light and reflection. And in the documentary, as the cameras moved inside the Concert Hall, in the sweeping internal shots of the building, I saw my thesis-story-world.

Building my concert hall

The glass blocks, with their quirky dimensions and angles are not a simple replacement for a sheet of glass or a traditional window. They do not represent merely a façade, instead they have a sense of presence and form. Yet they retain the transparency and translucency of a window. The edges of each block are marked by black framing, and as light pours through the blocks, networks of meshed shadow project into the building. There is light and darkness, presence and absence in these blocks. Each block contributes to something strong, present and visible, and yet retains some sense of invisibility.

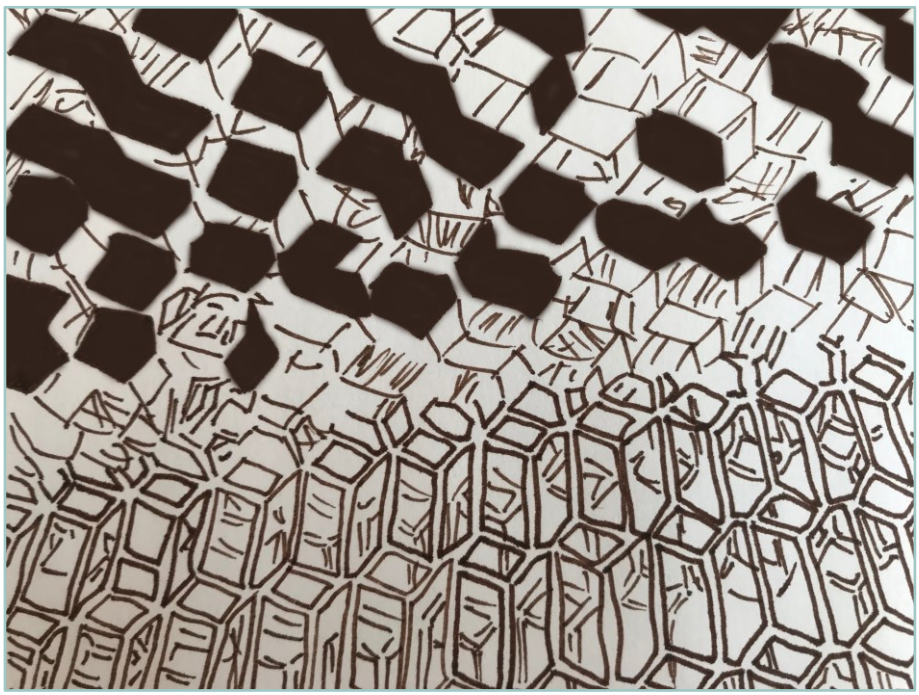


Image 2: Tessellating glass blocks in the Concert Hall structure

This strong outer shell protects the changing and dynamic forms within. Shaping, containing and supporting them, yet not limiting them. It protects but does not stifle, with light, shadow and shape pouring through the shell of glass blocks –

simultaneously adorning and enhancing what lies within. Changing it moment by moment, day and night.

In that moment, slouched on my sofa, I saw how my thesis-story-world had some of those same qualities – or at least, I hoped that I could bring out those qualities in the mass of ideas and potential swirling in front of me. This world has a strong, yet not impermeable container – I know the limits of what I want to explore and how these ideas can fit together to give strength to my thesis. I can welcome in casts of light from new ideas and see how my existing ideas can still be shaped and refined in the light of new thinking from outside the thesis-story-world. But each part of my existing world has a safe and necessary space in this outer shell. Each is critical to supporting and lending understanding to the next part. But as my story-thesis is distilled onto the page, not all these parts will be visible. They might not be included in print, but their imprint will be visible on those parts that surround them. Each part will retain some elements of visibility and invisibility in the final work, and each part will have transmitted some lucency onto other parts.

This structure and form will provide the work with dynamic and creative spaces within, where individual ideas and experiences can be explored and bathed in the flow of light and warmth from outside.

Within the Harpa Concert Hall, the staircases dazzle in light, the passageways and spaces allow people to move freely around and experience the grandeur of the building. The experiences that people enjoy in the hall are enhanced by the sense of movement, dynamic light and shadows playing across each space. The building is not a passive container for what occurs within, it contributes, enhances and elevates.

And in my vision of my thesis-story-world, there are also sweeping staircases, darkened passageways and clearings bathed in light. Well, I might be exaggerating a bit, but there are definitely spaces for movement from and towards different ideas and experiences. There are definitely spaces where things come together and stories within stories begin to form. And there definitely are ways to navigate this internal space and make sense of the varied material within. And that material is

definitely enriched by the strength and dynamism of the outer shell of containing ideas and principles.



Image 3: Staircase in the Harpa Concert Hall

Finally, the Harpa Concert Hall is not just a building of glass and metal. It is a space where people do things. People come, people do and people experience. In one shot, a vast empty space, drowning in light and shadow from the glass blocks to one side, hosted a small choir, ringed within the space and creating something completely separate from, and yet enhanced by the location (Image 4).

And in this moment, I saw how my classroom, my students and I, and our experiences together could sit as vignettes within the space. Creating meaning, provoking consideration and inspiring interpretation.



Image 4: A small choral performance in the Harpa Concert Hall

From this swirling thesis-story-world, my story and my doctoral thesis would emerge. Enriched for having been part of this extraordinary structure, academically rigorous and yet a good read with plenty of pictures and conversation.

(Before the) Beginning

"My dear young fellow," the Old-Green-Grasshopper said gently, "there are a whole lot of things in this world of ours you haven't started wondering about yet."

James and the Giant Peach (Dahl, 1961: p93)

Data Found Poem 1: How did it start?

Smithson Garrett Daphne

what's your course like

do you like it?

it's very different

from a lot of Imperial courses

because we're all scientists and math-sy things

it's a nice break

it is a nice break

from just

lecture

lecture

lecture

but is it worthwhile?

it's nice

it makes you feel rounded

it gives me things to discuss with people

outside

because no one wants to talk about

materials

I have no

conversation

before this year

it was just chemistry, chemistry, chemistry

and then we got here

and I was like

wow

so how did it start

this year

how did it start?

Beginnings are tricky, the first moments in the classroom, the first words on the page. I thought that I'd cleverly subverted this particular beginning by writing the previous section to introduce the beginning, which would then only be a continuation. And even more cleverly I thought that I'd put off the actual beginning still further by calling this section 'Before the Beginning'. But actually, what I meant by 'Before the Beginning' is that this introductory section precedes the story proper of my teaching year, my students and my own engagement with our learning together. But as I now realise, it is still the beginning.

I'm falling over myself to start, there is so much to say and I want to set every scene at once, so that you are equipped to navigate all that is to come. But at the same time, this task is overwhelming and impossible to achieve. I need to introduce the overarching question of the thesis, the various theoretical frameworks that I think might help unpack the most interesting and valuable findings and also the subject under investigation. This should be simple yet clever, gentle yet hard hitting, clear and yet aesthetically formed. It should be accessible and yet suitably complex and profound. So many competing self-imposed pressures and demands.

Stepping away from 'what' I want to achieve, I am very clear about 'how' I want it to be done. I want the writing and the introductions, explorations and stories to flow with natural ease. I want their form to emerge as they take their place on the page. I want every idea to live and breathe, to find its own time and place to be seen and heard. And I want to keep to an honesty and sincerity of expression that pretends nothing more than it is.

I want every word, comma, title and subheading to be authentic. To this project, to me, and to my students.

We'll delve a little more deeply into this idea of authenticity shortly, but first I want to reflect on what sixth formers, and therefore newly minted undergraduates really know about their chosen subjects.

Where is the beginning?

Data Vignette 1: How many rules does maths have?

Attending a teaching seminar on Wednesday 13th March 2019.

> Wednesday 13th March 2019
>
> I've been rushing all day to get here on time. And as it happens, I'm one of the first to arrive. The vast room is nearly empty, and the tea and coffee looks a little lost on a long bench table at the back. I make myself some tea and take some water too. And some biscuits. I skipped lunch after all. By the time I head back to the seat where I stashed my bag and coat, the room has started to fill. Both of the seminar speakers for today are milling around, checking their slides and exchanging pleasantries.
>
> In one month it will be me waiting nervously at the front. It will be my turn to give a Talking Teaching seminar. Don't get me wrong, I love talking and I love teaching. And I really love talking about teaching. But these days I get really nervous talking about my kind of teaching to audiences that might not be interested, or might even be downright hostile to what I'm trying to achieve. I used to love the challenge of explaining what my classes are about, and why they might have value – even to the most disinterested, defensive or even philosophically opposed colleague. But recently, I have found that as I have refined my approach and come to care more about what I'm doing, what other people think matters more to me. It's a strange paradox – as I've become more experienced and able to articulate and support my approach with theory and evidence, I've become less and less confident in doing so.
>
> Introductions are being made, and a hush has fallen over the room. The first speaker today is a Professor from the Maths department. To be honest, I'm really more interested in the second speaker, who I have collaborated with previously. I'm pretty much planning on letting this first talk wash over me. I want to focus on the audience and imagine what my audience might be like next month.

The topic of the first talk is about using computers in teaching, and more specifically in marking. This doesn't really fire my imagination and my mind starts to wander even further from the talk beginning to unfold at the front. But then I hear

Prof: … I try to make the students notice that SOMETHING is actually happening

The Professor has been introducing himself and his talk, and well known for wearing brightly coloured and patterned clothes, he was explaining that he does that as a gimmick, as part of his performance. To try to make a connection with his students, to startle them into engagement.

I sit up a little straighter and begin to pay attention. The Professor goes on to explain that he teaches an introductory module to all first year undergraduate students at the start of their first year. Then he puts a sudoku puzzle up on the board to explain that sudoku has three rules. I'm half listening and half trying to solve the sudoku. But I agree, there are three rules. No two numbers the same in a row, in a column or in a box. Three rules. Now he's asking how many rules there are in maths. I think back to my secondary school maths classes and decide there must be very many. I remember pages and pages of wrong answers, incorrect diagrams and red pen. But apparently, I have been misled. The maths we are taught at school is a 'maths-in-the-world' maths.

Prof: … it's got numbers, it's got shapes, it's got circles and triangles, sines and cosines. It's got loads and loads and loads of things. So there must be loads and loads and loads and loads of rules. But that's actually not how it works at all…

Really? I'm so glad. I was never any good at maths-with-lots-of-things. But I always felt I should be good at maths. Maybe I would be good at this maths that's not about lots of things?

Prof: … Maths has got a really small number of rules. Maths has got about … ten rules. And the first rule of maths? There exists a set.

A set? That sounds like something I could understand. I wonder if I could learn about this thing called a set? Stop getting distracted. I'm not here to learn about maths. Think about the seminar. Think about my seminar. What are the audience doing? Are they interested? Friendly?

Hang on, the Professor is now explaining why I'm no good at maths. This is good. I always wondered why I couldn't get on with maths. He is saying that in order to engage children and learners with the ideas of maths, maths is related to things that can be seen in the world. Like circles – we can see circles and we can learn about the maths of circles.

This is good. I know some circle maths.

But apparently, circle maths is very complicated (perhaps I'm better at maths than I thought). Circles are very high-level mathematics.

Prof: … maths doesn't start with circles, maths starts with sets

At the start of the module, a lot of time is spent trying to guide the students to dig beyond the 'high level', complex maths that they have learned to navigate the world, to get to the basic, fundamental rules underlying this mathematics…

I can relate to this. I spend a lot of time at the start of my modules on a similar mission. The students always want to reach for the most complex, most intellectual, most advanced ideas. But I'm pretty sure that they don't really understand them. Or they don't really understand how they fit in the world. Or with their own experiences or understandings of the world.

… so for example, the Professor asks them what π is. And then when the students answer that π is circumference over diameter, he asks them what a circumference is. And then when they talk about length, he asks them to define that. Eventually, he says, the students cannot answer his questions…

Prof: … and I tell them that it is not acceptable. And it's a shock. And people tell me that they walk out of my first lecture knowing less mathematics than when they walked in

There's a small ripple of amusement in the room at this point. But I'm hooked. This Professor feels really strongly about this. He's not trying to make his students look or feel bad. But he accepts that to move the students to a different starting point, there has to be some discomfort. There has to be some uncertainty, disappointment and anxiety. But then the students can be engaged to work together – together with the lecturer, and together with each other.

Prof: Let's carefully build up new facts, new theorums, new structures. Let's build mathematics from scratch

I like being challenging. I like the puzzle and complexity of creating a new position, and then convincing people who are fundamentally opposed to that position that it has value. But then I usually like to move on. Tackle a new challenge. This time though, this programme, this undertaking in learning and teaching, has more meaning. More personal resonance. More permanence. And I'm not sure that I know how to deal with this phase of the 'project'. I worry that people are thinking – 'OK, we've got the message, there's no need to keep on about it'. But in addition to creating a project that is challenging to my institution, I also create challenge within the classroom. And I worry about that too. I worry about justifying that. Perhaps I'm just addicted to creating chaos.

But here is a respected Professor. Maybe a little eccentric, but definitely respected. Known for good teaching. Who revels in the challenge that he creates for his students. Who is unapologetic about the need for that

> challenge. And his expression of that challenge is framed within the context of his discipline. In order to create true disciplinarians, he HAS to break down the students' superficial understandings.
>
> That is what makes it slightly more difficult in my case. That is what makes my use of challenge seem a little more precarious. I cannot justify my thinking in quite the same terms. I work outside of the disciplines. I am a permanent outsider in this collegiate setting. And I am not trying to 'produce' disciplinarians, I am trying to help students become better learners. More engaged participants in their own lives and the lives of others around them. More effective in spotting opportunities to create change, and more successful in making it happen. Quite a nebulous ambition.
>
> There is clapping. I've missed the end of the talk, caught up in my own thoughts. I never found out about using computers for marking. But I have gained something more valuable. I have been inspired to think about this Professor in his classroom. And to think about what he is doing and his reasons for working in this way. And that has given me a new way to think about what I am doing in my classroom.

Now we've all heard stories – especially in science subjects – about students needing to overcome the difficulties raised by having to unlearn basic facts that they have been taught about their subject at school. It turns out that these so called facts, are merely a shorthand or symbolic simplification of the reality with which they now need to grapple to further their knowledge. But this is the first time that I had thought about this phenomenon in terms of authenticity.

Not only does this Professor want his students to take a step back and develop an understanding of how maths works by mastering the rules, he wants them to be aware of what they are doing. This could be understood cynically, as a way to stop students complaining about the nature of the module or the disorientation that they are experiencing. But I don't think this is the case. This is much more about making the students reflect on the nature and importance of that disorientation to increase

their agency towards and engagement with the project in hand. And this is what made me sit up and start taking notes.

The aim is to move students from using their superficial comprehension of very complex concepts to understanding the fundamental rules of mathematics. By using these rules, they can gradually build a much more authentic and enduring understanding of how mathematics works, and eventually develop a deep understanding of complex phenomena such as circles and circumferences. Clearly, the intention here is to facilitate a critical self-appraisal of the students' existing knowledge of mathematics and for the students to understand that they can eventually learn more about maths if they first build a stronger and more detailed foundation for their knowledge.

But is this really about authenticity? And how does it relate to what I'm interested in? Well I think that this Professor's work is really about developing a sense of 'authentic' engagement with mathematics. Rather than assimilating a superficial understanding of complex phenomena, the students will develop the ability to really understand and relate the most basic of concepts to the most complex. Rather than simulating mastery of the complex, they will advance towards this aspiration from the bottom up. They will travel and experience every step of that journey for themselves.

This step-wise, bottom-up process of learning might seem to make a lot of sense. And yet it is rarely used within formal education for a very important reason. As time has gone on, and the human understanding of the world has become more detailed and complex, the volume of 'available' knowledge to be learned has increased exponentially. If every individual learner were to approach the great body of knowledge that is held by humanity from first principles, it would take more than the available amount of time for each individual to work through understanding each individual piece of that knowledge in a step-wise, a posteriori or a priori fashion.

Learning in disciplines, or disciplined learning?

In the interests of allowing individuals to cultivate depth of knowledge, the division of all available knowledge into distinct areas or disciplines serves us well (Holbrook,

2010). Learning within a single discipline allows individuals to specialise their focus and move through the amassed 'knowledge legacy' as efficiently as possible. This means that within academia, new scholars can be produced to take over at the fore-front of knowledge, serving the educational imperative for reproduction (Lyotard, 1984; Bourdieu and Passeron, 1990; Aronowitz and Giroux, 1991; Hauke, 2019). This then leaves time for those individuals to actually create new knowledge and further that discipline.

So education and academia have both come to rely on a disciplinary structure. A strategic streamlining of learning, and an efficient navigation through the vast body of accumulated knowledge. This has many benefits, but also some shortcomings. Over time, the disciplines have become so distinct that vast differences have arisen in the intellectual and methodological processes that further knowledge within those different areas. And these processes in themselves become something that has to be learned, or as they are so pervasive and omnipresent, perhaps acculturated is a better word.

In a sense, this speaks to a separation between the ideals of learning and those of education. French Catholic philosopher Sertillanges thought deeply about these issues in his work 'The Intellectual Life' (1987), initially published in 1920. The book explores the nature of scholarship and the self-organisation that is required to pursue true knowledge.

Sertillanges places the individual at the centre of their learning, rather than the canon with which they are attempting to become familiar and later enhance. As this Professor demands of his first-year mathematics students, he emphasises the importance of building a strong foundation upon which to develop complex and deep understandings (Sertillanges, 1987). However, he also places the responsibility for this beyond the learner, especially in formal academic learning - "they cannot, all by themselves, begin at the beginning. When they join a group already well on the road, they find themselves at a stage where other stages have already been passed" (Sertillanges, 1987: p27).

In other words, the students will start where they have been directed to start, rather than backtracking to find the basics they need to solidify a strong foundation. And he invokes St Thomas Aquinus in further describing a bottom-up, step-wise approach to learning "ut per rivolus, non statim, in mare eligas introire", which may be translated as "you should choose to enter, not straightway into the ocean, but by way of the little streams" (Aquinas, 1947/13th Century: p 3).

He goes on to note that this requires self discipline – it is easy to get caught up in the exciting idea of knowledge, without taking a measured approach. The prestige of scholarship and the pressures to advance within education and later within academia, can drive us off a virtuous path to true knowledge - "to the virtue of studiousness, two vices are opposed: negligence on the one hand, vain curiosity on the other" (Sertillanges, 1987: p 25). Ensuring a basic and grounded understanding of a phenomenon before building more complex insights is fundamental to progress - "those who aim at what is beyond their powers, and thus run the risk of falling into error, who waste their real capacity in order to acquire some capacity that is illusory, are also men of curiosity in the olden sense" (Sertillanges, 1987: p 27).

But what does Sertillanges make of the disciplines? Are they a helpful division of knowledge and scholarly labour, or do they inhibit true learning? Well, he initially appears in favour of disciplinary learning – "a stream narrowly hemmed in by its banks will flow more impetuously" (Sertillanges, 1987: p 8). However, closer inspection of this passage reveals that he is not necessarily relying on disciplinary boundaries to provide this containment and produce a funnelling, propulsive effect to the scholar's progress. After all, in any given learning experience, there are more ways to focus a task than to restrict the subject matter at hand. And he goes on to consider the purpose of knowledge – to help us to understand and solve problems. And problems themselves are tricky – they don't stick to disciplinary boundaries – "a problem cannot be self-contained; by its very nature it exceeds its own limits" (Sertillanges, 1987: p 136). So a disciplinary approach to learning is unlikely to be helpful in problem solving - "in order to ennoble the spirit of our work, we must add to earnestness, concentration, submission, an effort at breadth which will give to each study or to each product of our thought a kind of universal bearing" (Sertillanges, 1987: p 136). And this 'spirit of our work' that he mentions, cannot and

should not be confused with a disciplinary approach - "what we call specialising or analysis may indeed be method, it must not be a spirit" (Sertillanges, 1987: p 137). In other words, the disciplines are a tool that we can employ, they provide a methodological foundation for our investigation, but they should not contain or limit our approach. Indeed, although Plato believed that we engage our whole soul with thinking, Sertillanges wanted to take this a bit further and require that we think with our entire being (1987).

Disciplines provide spaces for like-minded and like-educated individuals to communicate and collaborate, using common methods and approaches (Wenger, 1998). However, the world does not exist in disciplinary confines and neither do the problems that plague progress and ultimately survival. So do the disciplines produce experts, or hyper-evolved learners that are unable to relate to the real world any longer? Is there a loss of communitas based on belonging in the world in favour of a more focussed and limited kinship within the disciplines? It might seem that the disciplines prevent an authentic engagement with the world to some extent, and therefore with ideas and knowledge.

Is authenticity too hot to handle?

> *"Due to its long philosophical pedigree and innumerable connotations, authenticity is a difficult concept to handle" (Varga, 2012: p 13)*

During the completion of my Masters in Education in 2016, I spent many supervision sessions wittering on fairly incoherently about my work with students being 'organic'. And trying to convince my supervisor that my research design should also be 'organic'. What I meant by that was that I always try to create curricula that allow students to arrive at having learned something, without having to commit a specific and separate 'act of learning'. Whatever they are doing in the classroom, whatever they are doing at home between classes, should propel them into their learning. They should be so consumed by the activity, the choices that they are making and their presence within the activity, that they shouldn't really need to sit down and complete a separate action that facilitates learning. What I realised early on though, is that if you 'hide the learning' (a bit like mashing cabbage into potato to

fool children into consuming their greens), the students will never believe that they have learned anything, or that they like learning (or cabbage).

Now I wasn't intending to 'hide' the learning, merely align the act of learning with their core activity so that it would arise out of it seamlessly. But from the perspective of the students, it just made the learning less visible and less tangible. Especially compared to their usual process of learning, where they would listen to something in class, and then go home to 'do' the actual learning.

What I also realised is that what I had been designing was only half a curriculum. I was facilitating learning, but not an awareness and acknowledgement of that learning. Engaging the students in reflection by means of peer review, peer-marking and self-marking would enable students to really comprehend what they had achieved, and how it had occurred. It would complete the circle and join the dots. But that is a story for a bit later on. The important point is that I kept using the word 'organic'. When, as my supervisor pointed out, the word I should consider using instead was 'authentic'. He pointed me in the direction of Carolin Kreber (2013) and I didn't look back. Although I did come to understand that my use of the term 'authenticity' is quite specific to my own context, and relates quite strongly to the concept of 'organic'.

Maybe we'll come back to the whole cabbage-in-the-potato organic issue later, but in the first instance, let's look at authenticity more generally. The word 'authenticity' originates in Ancient Greek as *authentikos* meaning original, principal or genuine. *Authentikos* itself derives from the noun *authentes* meaning 'master'. This is built from *autos* meaning 'self' and *-hentes* meaning 'doer', 'worker' or 'being' (Varga, 2012).

Moving through Latin and Old French, the word entered the English language in the late Middle Ages, with a now obsolete definition taken from the French usage of the word meaning 'authorised' (Online Etymology Dictionary, 2018). In modern English, the term has four distinct usages, three of which are particularly relevant here:

1. Of undisputed origin, genuine; relating to or denoting an emotionally appropriate, significant, purposive and responsible mode of living; sincere; true to one's spirit, personality or character
2. Based on fact; accurate; reliable
3. Made or produced in a traditional or original way; faithfully resembles the original; very similar to the original; a good imitation; as good as the original
4. (Of a church mode or cadence in music)

(Collins, 2018; English Oxford Living Dictionaries, 2018; Macmillan Dictionaries, 2018; Merriam Webster, 2018)

Focussing on the first three definitions as being most relevant in this context, there is a clear distinction between the first two and the third definitions, in terms of their reference to originality, fact and perhaps truth. The first two directly represent the 'genuine', whereas the third relates to a representation that could 'pass as genuine' – an imitation or replicated version of the original. Additionally, the first definition is very much about the quality of human experience or of a person in themselves, whereas the third definition is much more about production and the quality of a product. For the purposes of this investigation, I will group the definitions along these lines, as represented by the word clouds below:



Figure 1: Word clouds representing genuine authenticity (left) and simile authenticity (right)

Considering this useful division in more concrete terms, we could perhaps borrow a little from aesthetics here. Dutton (2003) divides my 'genuine' authenticity further

into nominal authenticity and expressive authenticity. Nominal authenticity relates to provenance, authorship or origins, as a way of demonstrating that an item or phenomena is 'genuine' or 'original'. This is very much in relation to the production of the item in question. Expressive authenticity relates more to the nature of the produced item rather than the physical existence of the item. Here, the item should demonstrate expression of the creator's genuine character, beliefs or values.

Already, with this very simple definition and exploration we have opened up rather a tricky area. When we were just considering the nature of authenticity in objective terms – looking at whether something was, for example, a genuine item – that was quite simple. But as soon as we add in a value judgement, and specifically a value based on human nature, things become much more complicated.

For me, these ideas work well together. I consider something to be authentic in the classroom when the action or material in question is genuine to the owner or producer of that action or material – in other words, it has a quality that means it could only have been produced at that moment by that person. This then combines both nominal and expressive authenticity (although I think it would be possible for an individual to generate an authentic action or material that didn't necessarily express something of their true nature – or at least not explicitly). I also value the idea (and maybe this is where the organic cabbage-in-the-potato comes in), that this action or material should have been produced as a natural consequence of the presence and engagement of the individual with the location and event in question. By this I mean that this action or material is a natural artefact of engagement – in my case, with learning and teaching. It is not produced as an extraneous or separate activity, or as a post-hoc consequence of that engagement.

We'll revisit this shortly with a deeper consideration of the philosophical origins of the concept of authenticity, but first, let's delve a little more into this particular story.

Getting back to the story at hand

I am a university teacher, with the curious luxury of being able to design my own curricula. This freedom extends to the content or subject matter, the pedagogical style of the learning and teacher encounter(s), the structure of the learning and, of

course, the assessment. And being a curious individual, I also like to reflect upon and analyse the impact of these designs, and my delivery of them as a teacher through practice-based research. These three roles – designer, teacher, researcher – are the reason that I am able to think and work as I do, but also underpin the questions that I am able to ask in this research and the ideas that I can therefore weave together to tell this story.

In this particular instance, I am interested to explore the learning and teaching experience of myself and my students, through the lens of the teacher (i.e. so exploring what I as the teacher can know of the student experience) with particular reference to the idea of authenticity as described above. Given that the experience that I want to explore occurs in the context of curricula that I have designed, I also want to consider the role of the design in the experience generated.

Now, you might have already spotted the elephant in the room here – I am looking to explore the student experience through the lens of the teacher. Isn't that a bit of an oxymoron? How can the teacher know about the student experience? We're different people with a different stake in the (joint) endeavour. There are all sorts of power and ethical issues at play here. Well, in Section 2: Method(ish) we will explore the nature of experience and my particular choice of research methods with regards this thorny issue in plenty of detail. But for now, let's just consider this issue in terms of authenticity.

I am a teacher, and I am undertaking this research to find out more about how my particular teaching works, and I want to communicate this with (anyone who's interested, but in particular) other teachers. I want other teachers to be able to compare my experience with their own. I want to explore and report on my context in a way that is accessible to other teachers, without including lots of additional layers of data collection and analysis (such as post hoc interviews with students after their experience). I want my data (which as I have mentioned is observational data) to arise 'organically' or authentically from the learning and teaching experience. So that another teacher reflecting on their own experience, might be able to recognise authentic data arising from their own learning and teaching encounters.

What is particularly interesting in my case, is that I have designed curricula that I think promote authentic engagement, learning and teaching. I will be exploring if that is the case as this story unfolds. But the other thing that (I hope) these curricula do, is to make as much of the learning and teaching experience (of both the teacher and the students) as explicit as possible. Not for the purposes of collecting data for research, but in the service of enhancing the learning and teaching experience for all involved. But of course, this undertaking allows me to examine whether the material that is generated in the authentic pursuit of our joint learning and teaching endeavour can be repurposed in this way. Does it constitute robust, ethically obtained, analysable and useful data? And if so, is this data solely useful in terms of localised research of this particular context, or can it be explored in a wider context and used to ask bigger questions?

Lots of people think about research in terms of solving problems and finding answers to tricky questions. But research can also be seen as a valuable tool for asking questions and then asking even more questions (van Manen, 2016). As I say to my students when they're working on a project or writing an essay – the question is the most important aspect of any such undertaking. If you spend as much time asking questions as trying to answer them, your thinking will reach heights you can't even imagine at the start.

Who's telling this story, anyway?

I am a Principal Teaching Fellow in the Centre for Languages, Culture and Communication (CLCC) at Imperial College London. As a STEMM-B institution, Imperial College offers degrees in science, technology, engineering, maths, medicine and business. This specialisation means that the opportunities for students to integrate arts and humanities into their studies are limited, and our undergraduates miss out on the chance to mix with students from a full range of disciplines around campus. Indeed, our student body tends to remain fairly isolated even within disciplinary cohorts, with students in the sciences tending to mix with other science students, engineering students with other engineers and medics with medics.

In 2012, Imperial College introduced the Horizons programme to tackle both these aspects of the student experience. The programme offers all undergraduate students the opportunity to take one module per year from one of our three 'fields' of study – 'Languages', 'Humanities and the Social Sciences' or 'Change Makers'. Many students choose to integrate their Horizons modules for degree credit and some take the modules as extra-credit (listed on their transcript but not counting towards their final degree classification).

My role (in triptych)

My appointment was based on my successful leadership of a previous challenging programme that worked with vertical research teams - requiring whole teams to work together to achieve somewhat uncomfortable goals and tasks without the usual distinctions of professor or junior researcher. I had a bit of a reputation for thinking outside the box and being motivated by seemingly impossible obstacles and challenges. In fact, at a team-building away day, I unwittingly confirmed this impression during our very first activity. We were shown an image of a plate of biscuits – there were digestives, rich tea biscuits, chocolate chip cookies, bourbon biscuits, custard creams, hob nobs and jaffa cakes. In turn we were asked to pick which biscuit we would take off the plate to eat. I quickly began calculating the possible connotations of various choices, but, as virtually everyone else refused 'to play', it became my turn to choose sooner than I was anticipating. So without enough thought, I went with the biscuit I would actually choose – the jaffa cake. And my 'personality' was then displayed on the screen for everyone to discuss:

> *Open-minded and unconventional, you enjoy engaging with the world around you. You enjoy playing with ideas and solving problems. You are not afraid to take the opposite view to everyone around you. You come up with ideas that no one else would think of. Not afraid to go against the current in any situation.*

Apart from the horror of suddenly having my personality dissected by a range of colleagues, with, I'm sure, a range of feelings about me, I thought that this was pretty accurate, and actually a little flattering. I'm not sure that I'm as brave as that makes me sound, but I'd like to be.

So back to what I actually needed to do in this new role. Well, while the Language and Humanities options were available to students before the inception of the Horizons programme, I was appointed to develop the new Change Makers study modules. Initially called 'Global Challenges', my brief was to develop and deliver learning activities that helped students explore global issues without duplicating any learning experiences or content from their core disciplines. I had a few weeks to observe students taking a pilot module, before I needed to present curriculum designs for three new modules to be offered the following term.

Elizabeth the designer

My initial observations were that our students were able to memorise vast amounts of material delivered didactically, and in response to a question would reproduce what they had been told almost verbatim. It was very difficult to push the students to consider what they had learned in a wider context, or for the students to integrate material from different sources (perhaps from different lectures, independent research or even from each other). The students did not seem to value each other in the classroom and were pre-occupied by learning only what was 'right', 'true' or 'correct'. Differences of opinion were either not expressed, or led to heated arguments that the students seemed unable to resolve. They readily accepted anything that they were told by anyone they viewed as 'expert' or 'in charge (of the assessment)' and didn't want to 'waste time' thinking about things.

I felt that the students were short-changing themselves – but not through any fault of their own. They were working and learning in the way that served them best in other aspects of their education. But they seemed stuck within this mode of approach and I felt like the challenge would be to motivate the students to try working differently.

As Sertillanges wrote (1987: p 7):

> "the future is always heir of the past; the penalty for neglecting […] to prepare for it, is to live on the surface of things. Let each one think of that, while thinking may be of some avail. How many young people, with the pretension to become workers, miserably waste their days, their strength, the rigor of their intelligence, their ideal! Either they do not work […] or they work badly, capriciously, without knowing what they are nor where they want to go nor how to get there"

It felt like the students viewed these classes as a transaction – they would attend, and in return they would receive ready-processed information that they could memorise to pass the assessment, and to become 'knowledgeable' on the topic at hand.

On the one hand, it might seem that the students were approaching their education as savvy consumers – they knew what they needed and had developed an efficiency in their approach to allow them to obtain it. But did they really understand what they needed to know, or were they putting blind faith in their 'experts'? Were the students actually making a choice to learn in this way, or was this approach forced on them by the broader nature of their educational experiences to this date?

Their approach could be understood as akin to the 'banking education' described by Paolo Freire in his 'Pedagogy of the Oppressed' (1970). He describes an education that (1970: p53):

> "becomes an act of depositing, in which the students are the depositories and the teacher is the depositor. Instead of communicating, the teacher issues communiqués and makes depositions which the students patiently receive, memorize and repeat […] the scope of action allowed to the students extends only as far as receiving, filing and storing deposits."

Was this instead what was happening, and if so, how could it be changed?

I made a conscious decision to try to stop 'telling' the students anything – perhaps we could find out things together. Although I hadn't come across Maxine Greene at this point in my thinking about learning and teaching, I now find her writing about authenticity, teaching and learning very helpful for bringing my ideas together (Greene, 1973: p6):

> "the possibility of arousing individuals to wide-awakeness, to 'thinking' […] about their own commitments and actions wherever they work and make their lives. In other words, we shall attempt to do philosophy with respect to teaching, learning, the aims and policies of education, the choices to be made in classrooms, the goods to be pursued."

And as this was a new programme and I essentially had a blank slate, I quietly put the pilot module aside and started from scratch. In the first module that I designed, I decided that we shouldn't be presenting the students with 'global issues' that we, as teachers, had decided were worthy of study. Instead we should start by exploring together what we mean by the concept of a global challenge. I decided that at each moment in the design, it should be possible to take a step back from an assumption about content, process or organisation and replace that assumption with a question that could be answered in negotiation and collaboration with the students.

The first couple of years were challenging. The students weren't equipped for this sudden 'liberation' and engagement in their own learning. And to be fair, I didn't really get everything spot on first time around in either the design or the delivery. But over time two things happened – firstly, I gained experience and got better at supporting the students to learn in this way and secondly, the longer I stuck around, saying and doing the same things, the less the students seemed to be affronted by what I was asking of them. There was an invisible 'melting' of hostility and things just became easier. Students who had found their learning experience valuable told other students about it. Students started specifically seeking out these modules based on word of mouth, and things started to really come together.

In total over the last nine years, I have developed 21 different modules within the programme, of which we offered nine in the year 2018-19. However, each module is constantly being reviewed and revised by a process of action research, and there have actually been 46 different iterations or developments of those modules (see Appendix 1 for a table showing the timeline of development of the Change Makers modules).

Initially conceived by Lewin (1946) and further developed by Schon (1983) and Carr and Kemmis (1986) this action research process allowed pragmatic interrogation of the delivery of, and student engagement with, the modules year on year. Using the cyclical nature of the process, changes could be implemented within and between iterations of the modules, gradually refining and developing the learning design and pedagogy.

Usually conceived of as a cycle (figure 1), the idea is that you run a module, observe a particular aspect of that teaching and learning episode(s), reflect on what has gone well or what could be improved, identify something to change, plan how that might be implemented and integrated into the module delivery and then the cycle can be repeated.

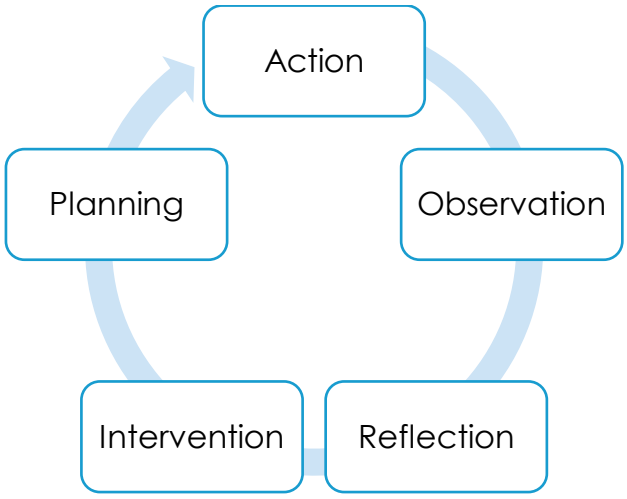


Figure 2: A typical action research cycle

This worked really well to facilitate the development of the curricula and module delivery from a design point of view. It allowed me to consider things like how much class time was devoted to a particular learning activity, or the order of a sequence of activities. I was able to refine assessments and introduce new working processes and methods. I might think of this action research cycle as my 'first level' of development. However, another process helped to inform the refinement of the learning and teaching 'experience'.

Elizabeth the teacher

As human beings, our experience and interaction with the world is governed by our sensorimotor system. We have sensory inputs and motor outputs. Our experience as teachers can also be divided along these lines. We have the outputs – the speaking, delivering, demonstrating, PowerPoint-assisted, teacher-to-student function, and we have the inputs – the listening, seeing, feeling student-to-teacher function. I think different balances of these two systems of interaction are needed and beneficial for different educational projects and I am not making any statement here about what I think is best. But what I do know is that my two systems are firmly skewed in favour of my input system. More of my energy while I am teaching is used watching the students, listening to both what they say to me directly and what they are saying to each other (or to other people on social media, if I happen to get a glimpse of it), feeling the mood of the students, the level of engagement with the activities, the temperature in the room, the energy levels. And I then use even more energy thinking about what all this means, trying to refine my approach in the moment to best support what I and my students are trying to achieve. And my delivery is fine-tuned to respond to what I am gaining from this sensory (over)load.

I don't teach or even behave in this way because I think it is the best way to go about things, I do this because it seems to be how I'm wired as a person. For my teaching, I feel this is largely an advantage, although in other aspects of my life, may be not so much. My learning and curriculum design is hugely shaped and moulded by this inward-greater-than-outward balance in my thinking, but the impact on my practice also enables me to make the most of this design in the classroom.

For this reason, some of the more ephemeral and less functional and administrative elements of my learning design have developed over time from a form of heuristic enquiry. "Through exploratory open-ended inquiry, self-directed search, and immersion in active experience, one is able to get inside the question, become one with it, and thus achieve an understanding of it." (Moustakas, 1990: p15) This 'inverted perspective' (Salk, 1983) requires the researcher to imagine themselves in the position of the object under investigation.

I think that my skewed privileging of inward information, really enables me to live, think and explore within the activity of my teaching. What some might call an obsessive single-mindedness, I might choose to refer to as my 'second level' of development.

Now I'm not saying that I've invented some fantastical new way of working, or that this is even a phenomenon that is peculiar to me. We all have light bulb moments in the shower, or wake up in the morning with a new idea for a class. But I do tend to take this to the extreme, having regular shower epiphanies, and waking up many times a night with new ideas for learning activities, or for how to explain something, head off an often-encountered objection from students or even just get a sense of a different way of 'being' that might engender a subtle change in the feeling of an activity or class.

> "In addition to the significance of becoming one with what one is seeking to know, one may enter into dialogue with the phenomenon, allowing the phenomenon to speak directly to one's own experience, to be questioned by it. In this way, one is able to encounter and examine it, to engage with a rhythmic flow with it – back and forth, again and again – until one has uncovered its multiple meanings.". (Moustakas, 1990: p16)

Having the luxury of designing the curricula and classes that I also teach, additionally means that I have already spent time thinking about the logistics, the learning outcomes, the timings, the activities and the assessments during the design phase. This leaves me able to commit more in the moment of teaching; to see, hear,

think and feel what is around me and to act on sense and instinct; to critically engage with the students and our work together.

This critical engagement is very important to me because it is fundamental to the encounters that I have with my students, and to the encounters that I want the students to have with their learning. I don't want them to passively learn what is easiest, nearest or expected. I want the students to consider what they can learn; what they want to learn; what makes sense for them to learn; what will enhance their thinking, their creativity or their engagement with the world; what they as individuals need, feel curious about or want. I want this to be an active process, I want the students to be aware of this process and I want this criticality to be alive in their thinking and their work. If the students are to achieve criticality in their dealings with the pressing issues in the world around them, it must begin with some form of auto-criticality that links their being to the world, or as Barnett (1997: p102) calls it – a form of "critical being".

So if this is what I'm trying to facilitate in the students, it is essential that I can maintain some recognisable form of critical engagement in the moment, with the students and with the learning - "One has no faith in jewel merchants who sell pearls and wear none" (Sertillanges, 1987: p 18).

But isn't teaching as a concept a bit out of fashion? Shouldn't I instead be focussing on learning? Am I neglecting the learner in this obsession with myself and my own activity? Well I may not be in the majority to think and believe that teaching and learning are inseparable when they occur together, but neither am I alone:

> "My focus on the teacher may seem passé to people who believe that education will never be reformed until we stop worrying about teaching and focus on learning instead. […] In lecture halls, seminar rooms, field settings, labs and even electronic classrooms – the places where most people receive most of their formal education – teachers possess the power to create the conditions that can help students learn a great deal – or keep them from learning much at all. Teaching is the intentional act of creating those conditions, and good teaching requires that we understand the inner sources of both the intent and the act." (Palmer, 2007: p6-7)

Elizabeth the researcher

Although I had written up case studies of particular curriculum designs, or specific learning activities, I didn't do any formal prospective research until I completed my first ethnography for my Masters in Education (Hauke, 2016). I had never even heard of ethnography at that point, but I was aware that I wanted to do a form of research that would allow me to align my research with my teaching, and would feel 'authentic' to me.

A lot of classroom time for both myself and my students is spent 'coming to know'. Puzzling things out, feeling uncertain, finding a way forward, listening to each other, compromising and negotiating. For classroom observers my classes are painfully non-explicit. Our visitors tend to say things like "you didn't tell them anything", "why don't you tell them what you want them to do precisely" or "they don't know what they are supposed to be doing". However, I am very explicit with the students about this uncertainty, about this 'finding the right way for us, here, now'. I want the right course of action to emerge from a meeting of my ideas with those of my students.

In the same way, research for me is about building an understanding of a complex phenomenon, and I firmly believe that "there are no facts without value, no reason without emotion, and no knowledge without experience" (Hastrup, 1994: p237). Context is everything. The moment is everything. And 'organic' emergence of that understanding is everything.

I realised that because of the way I'm wired, because of the way I design curricula and because of the way that I teach and (over)engage in the classroom, I already produce a huge volume of 'teaching data' for every module. That data is a mixture of content that the students produce to serve their learning (blogs, diaries or journals of their experiences learning on the module; learning reflections; responses to feedback; assignments), other content generated by the students outside of their learning (email communications, participation in extra curricula activities, requests for support or references) and of activity, interaction and encounter that I observe in the moment or online between formal sessions.

And the thing that I am most interested in is the space between the teacher and the students, and working to bridge that gap. To move between and beyond our identities and our cultures.

This makes ethnography a good fit for me. I'm obsessive, curious and crazily observant. Although I don't have an eidetic memory, I have a very good memory for things people do and say. I think this comes from my days of being a junior doctor and memorising everything that a patient told me, all their results and anything else that might possibly be relevant to survive ward rounds. I try to know every student's name by our second class, even in the classes of over a hundred students. I remember what students tell me, so that I can follow up with them later and build connections and relationships. And this stands me in good stead when it comes to writing up field notes after a class. I am also good at knowing what I don't quite remember, and have a system of notation that allows me to indicate the gaps, guesses and suppositions in my remembered accounts.

But my research is defined even further by the notion of authenticity. Not only am I interested in authenticity in the classroom, in the curriculum, and between myself and the students; I am also interested in pursuing this form of authenticity in my research. For this reason, I try to bring together the elements of design, teaching and research so that they work as one. The curricula are designed to make the learning experience as explicit as possible. For the students to reflect and communicate their experiences on the module so that we can build on this in our learning. But also,

secondarily, so that I can explore this with a view to curriculum development, and with a view to researching that experience.

For our students who excel at retaining, manipulating and processing vast amounts of information in their minds, there is a value in working outside their minds. To really understand how you are putting ideas together or what questions you are asking of the world, there is a value in pursuing that enquiry on paper. In collage. In three dimensions. Through movement. Between individuals. Together. In teams. Collaboratively. And all this means that my students and I produce a lot of physical artefacts in our learning. All of which can be interrogated and examined – both in the moment, and later on.

I have embarrassing riches in terms of data. So, again, I am faced with another luxury. I can immerse myself in just this data. Data that has arisen authentically as a part of the learning experience. I don't need to pursue other avenues or methods of data collection that would inevitably introduce additional layers of construction – both on my part and on the part of the students contributing that additional data. For example, if I conducted interviews, I would be responsible for inviting the students to interview, explaining the context of the interview and the nature of my research and for framing their ideas a priori by asking questions. And the students would be constructing their responses to fit their idea of my expectations, in response to the context and the questions rather than directly in response to their actual experience. And in my pursuit of some insane über-authenticity, if-this-work-was-a-stick-of-rock-I-would-hope-it-would-say-authentic-wherever-you-bit-into-it, this feels important.

And I know that this method is fraught with difficulty, problems and even controversy. But those are difficulties, problems and controversies that the method allows us to explore together as the story unfolds. One aspect that is perhaps important to mention at this point is that of my role as data collector, writer and ultimately author of the account that you are reading. I believe that to honour the experiences and the people that I'm writing about, I should be as open and transparent as possible in these roles. I feel that as the reader, you should get a strong sense of who I am, how I think and how I work. This means that as the reader,

you can read what I write and engage with the stories, with this in mind. I hope that already, you feel that you are getting to know me a little.

> "Voice is the animus of storytelling, the manifestation of the author's will, intent, and feeling. Animus is not the content of the stories but the ways the authors present themselves within them. Scholarly writers have long been admonished to work silently on the sidelines, to keep their voices out of the reports they produce, to emulate Victorian school children: be seen (in the credits) but not heard (in the text)." (Charmaz and Mitchell, 1997: p193)

There are several ways that I hope to maintain this 'coming to know' between you and I as the story unfolds. The first way is to write honestly and plainly. I will try not to dress up my writing in academic jargon. The second way is to be explicit about my thinking within my writing, even if this means highlighting my errors or weaknesses of thinking, and precisely because this will reveal my position, my intention and my biases. And thirdly, as I have already mentioned, I have included myself and my own experiences as data within the ethnography. In addition to the other-ethnography of the classroom and the students, I have recorded auto-ethnographic notes about my own experiences, and you will read these written as autoethnographic vignettes. These provide a direct window into my position as designer, teacher and researcher from the midst of the experience.

We have to accept a key limit of this method, which is that this research, this writing and this story do not represent any kind of 'truth'. They provide a way for us to explore the issues and ideas together with rich examples that will fire our imaginations and inspire us to consider deeply what might be happening at any given moment. But we won't find out about some reified sense of the experience, because experience defies us at that point. It cannot be pinned down, defined or documented. There is much in common with what I attempting to convey in this written story, with what can be achieved in ethnographic film, and I think that MacDougall (1998: p266) sums this point up rather neatly - "In a sense ethnographic films do not 'mean' anything, but neither do they mean 'anything'. They situate us in relation to objects, deploying what is suggestive and expressive in the world."

Authenticity in Education

Going back to my initial separation of authenticity into genuine and simile – both are seen in education. Learning and teaching can exhibit features of authenticity that relate to the experience, individuals involved and relationships being 'genuine' (Cranton and Carusetta, 2004; Cranton, 2006; Hunt, 2006; Kreber, 2013); and learning experiences can be created that expose students to a simulation of some real situation with which they are being educated to engage (Berragan, 2011; McCaughey and Traynor, 2010; Ricketts, 2011; Sinha and Cooling, 2012).

One way to view these different approaches to authentic learning might be to consider whether teaching and learning is being conceptualised as a process (creating authenticity in the persons of the teacher and student and the relationships between them) or as a product (authentic as related to the curriculum and design of learning activities). The literature treats these ideas quite separately, but is there a crossover – either between genuine and simile authenticity, or between the authenticity that can be created in the learning and teaching process and curriculum design?

Another way of separating these ideas conceptually, might be to view education as either a divergent or convergent process. Divergent education orients the student trajectory towards an indefinite and infinite range of possibilities. Convergent education on the other hand, starts with a potentially diverse group of students and directs them to accumulate the same knowledge, experience and skills to satisfy a common and identical potential. The divergent approach aligns well with genuine (nominal and expressive (Dutton, 2003)) authenticity, and the convergent with simile authenticity.

So a map of these possibilities might look like this:

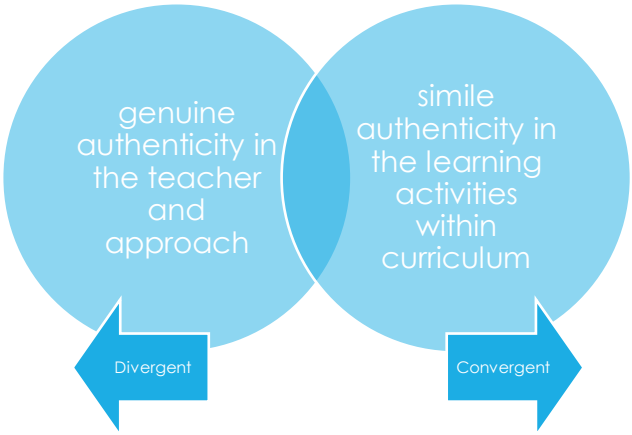


Figure 3: Genuine and simile authenticity in learning and teaching

In the cross-over between the two, you might find authentic educators (exhibiting genuine authenticity in their approach) undertaking and delivering simile authenticity in the curriculum. Or educators assuming a simulated identity to facilitate an authenticity of approach to a particular learning process.

But is it possible to take things a step further and create an authentic curriculum that has the features of 'genuine' authenticity?

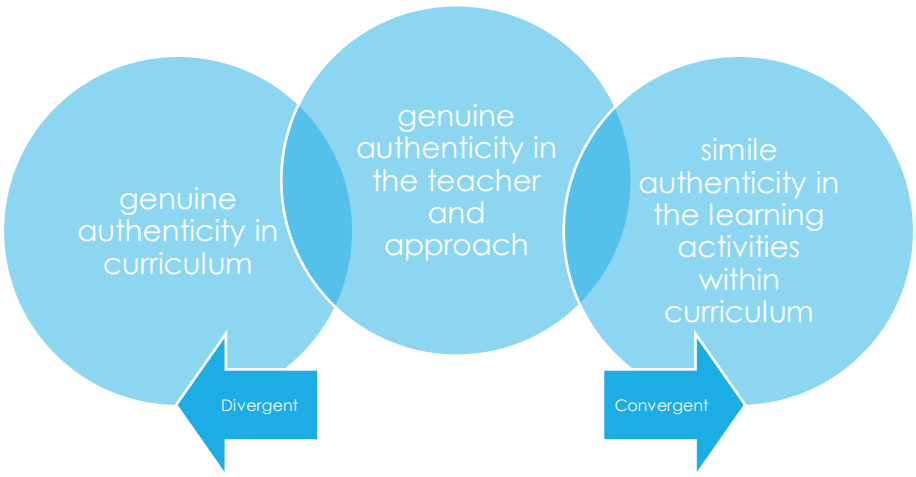


Figure 4: Genuine authenticity in curriculum design

What would this look like, and how would this compare to 'simile' authenticity in the curriculum? Using the below 'curriculum wheel diagram', we can consider all the different elements that might be important to understanding the nature of authenticity in any curriculum design.

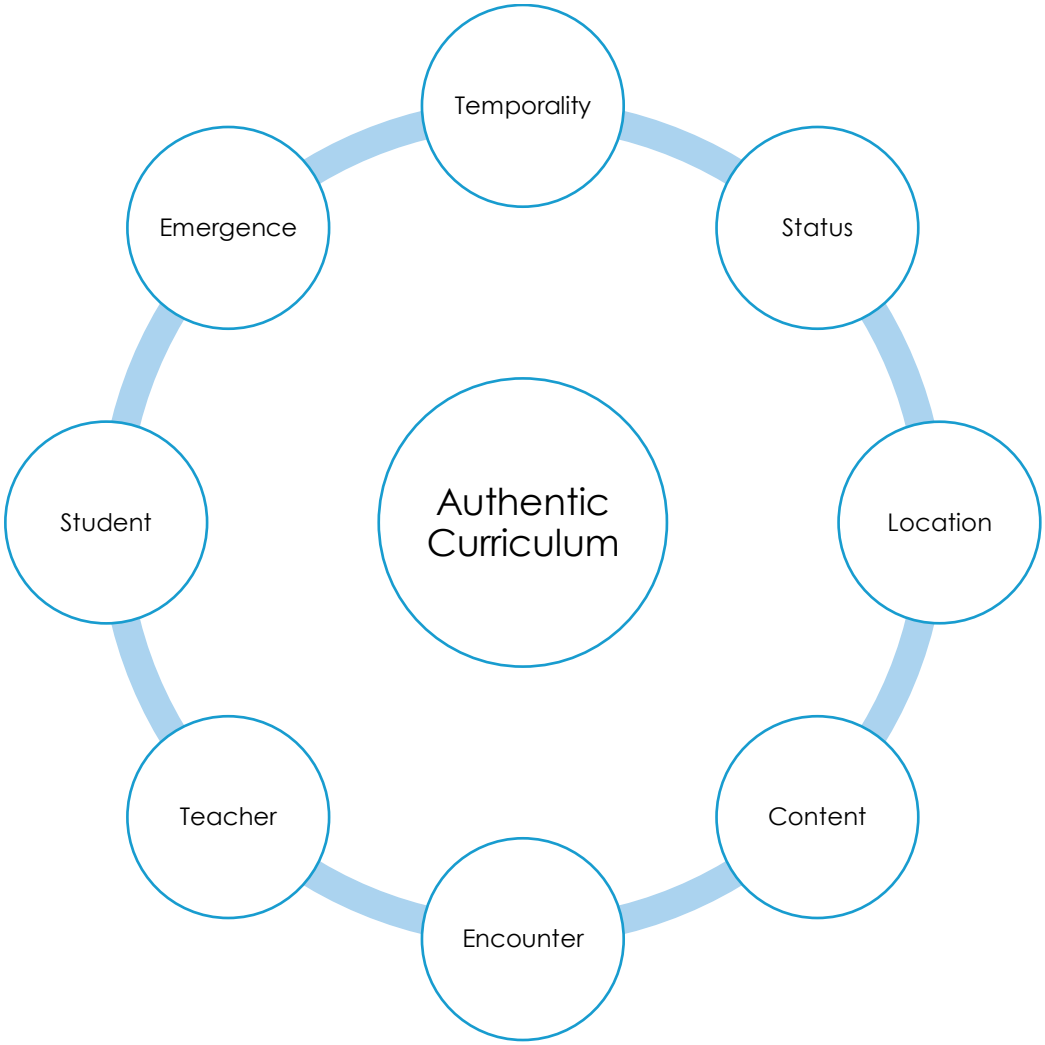


Figure 5: Curriculum wheel diagram - elements of curriculum design that might relate to authenticity

The table on the next page maps each of these elements and considers how they might appear in both genuine authenticity within the curriculum and simile authenticity.

Table 1: Curriculum features as present in genuine and simile authenticity

Feature	Genuine	Simile
Temporality	The curriculum is adapted to be contemporaneous (at this moment in time) and to the timing of delivery for the student (at this moment in their lives)	The same curriculum is delivered irrespective of timing
Status	Students are treated as students and enjoy the protected status – they are free to make mistakes and proceed under their own initiative	Students might be required to act as professionals and should take professional responsibility and follow the taught protocols
Location	Location is a neutral space that can be adapted to the students' needs in the moment	Location might be a simulated professional environment
Content	Content is negotiated and might differ between students	Content is pre-defined and the same for each student
Teacher	The curriculum is tailored to the skills, knowledge and person of the teacher	The same curriculum is delivered in the same way by every teacher
Student	The curriculum is tailored to the skills, knowledge needs and person of the student	The same curriculum is delivered in the same way to every student
Encounter	The curriculum is tailored not only to the teacher and the student, but to the specifics of the encounter between the two	The same curriculum is delivered by every teacher to every student
Emergence	The curriculum is dynamic and responds to various cues to best meet the needs of the students	The curriculum is static and proceeds as planned

From the table, we can see that with a curriculum that features or strives toward genuine authenticity, it is the curriculum and learning process that retains flexibility. The curriculum and learning can be used by the student in different ways to facilitate their own development. With a curriculum featuring simile authenticity, it is the student that must be flexible towards the curriculum. Most elements of the learning experience are fixed or universal (the same for every student), so the student must grow and adapt towards the learning experience.

But doesn't that imply that with genuine authenticity the student is somehow being coddled? They aren't required to grow and move towards anything – the curriculum seems to be doing all the work. I would argue that on the contrary, it is the student that must make the curriculum work for them. It is the student that must take responsibility for shaping their experience and maximising the gain from their learning. In the simile curriculum, that responsibility is removed. As long as the student completes what is set, develops the required skills, then they will succeed. They do not need to concern themselves with choice or reflection, they just need to work in a step-wise fashion through the activities being presented.

Designing for Authenticity

The idea of creating authentic curricula is what particularly interests me. How do you design a curriculum that is academically rigorous, detailed and specific enough to communicate the intended learning experiences and yet able to accommodate enough flexibility to allow for true, genuine authenticity?

Over the last nine years I have developed the Change Makers modules within the Imperial Horizons programme to attempt to answer these questions. The modules need to be academically rigorous to fulfil quality assurance requirements for degree level study and to attract degree credit. This is also an important factor institutionally, in terms of the modules being recognised as valuable by colleagues across different faculties. As optional modules, the curricula need to be detailed enough to attract students and yet flexible enough to allow for the modules to be adapted and tailored to specific students and cohorts in real time – and without compromising the basis on which the modules have been approved and ratified.

Although we have 18 different module options, spread over three different levels of study, the curricula share a coherence of approach and design that creates an identity and distinctiveness of experience.

The Live, Love, Learn Approach

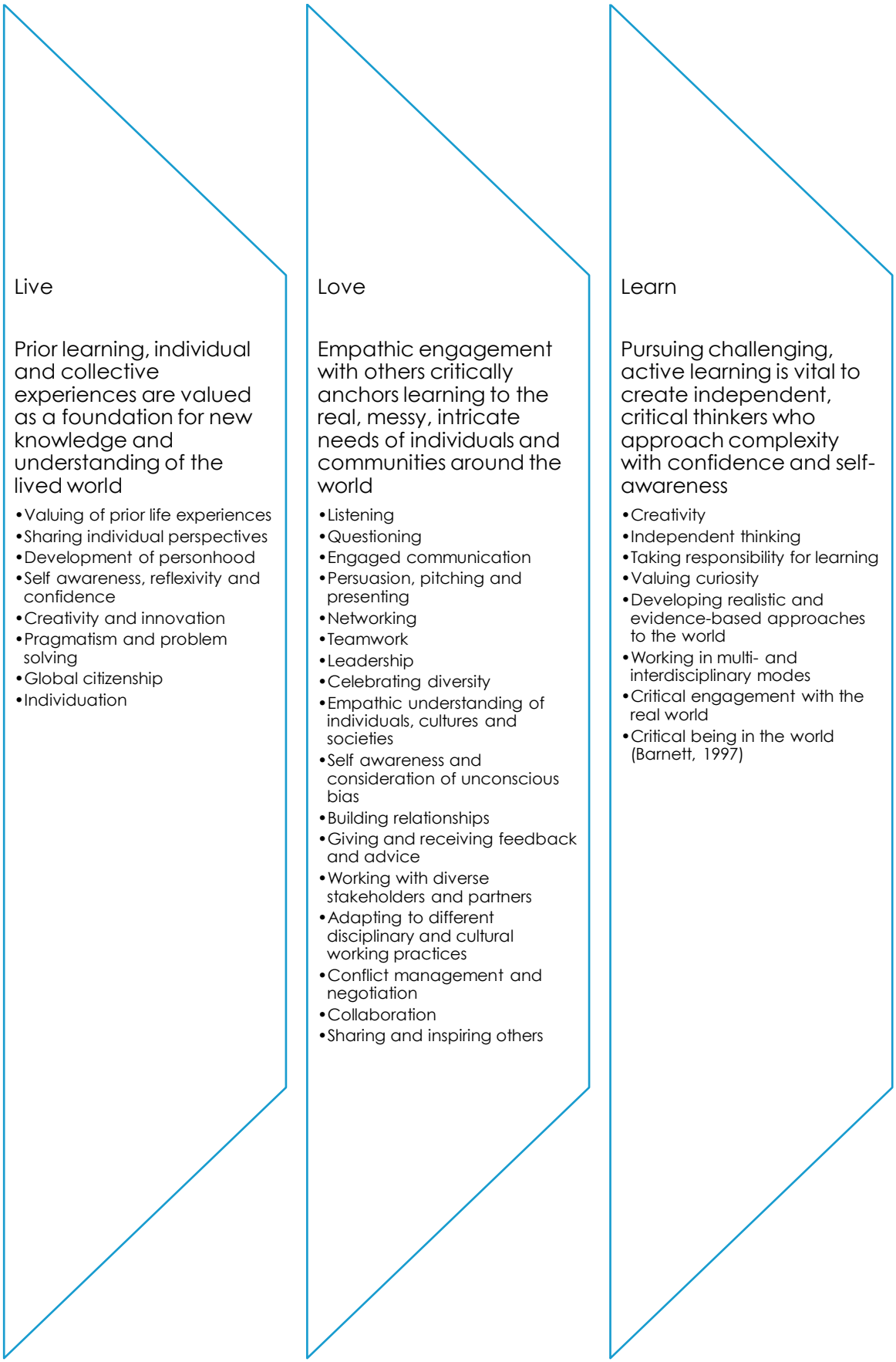
The Change Maker modules share a common organising philosophy, and the curricula across the different modules share a consistency of approach that has been carefully developed to promote a student-centred approach to learning and teaching. Each learning and teaching experience should be authentic to the individual student, the student cohort and to the engagement between teacher and student.

This approach has been documented on our Learning and Teaching blog (Hauke, 2017) as 'Live, Love, Learn':

"We encourage students to see themselves individually and collectively as capable and skilled individuals with a wealth of relevant and interesting personal knowledge and experience that they can bring to bear on any project. We provide scaffolded learning experiences and working processes to allow students to pursue their own curiosities about the world, conducting background and empirical research to answer their own questions and to build their own awareness and knowledge of the world. We invite students to engage their whole being in their work and to think beyond their identities as junior disciplinarians. We ask them to consider individuals, communities and nations with empathy and respect and to try to see the world from the perspectives of others – whether they be marginalized individuals, leaders, campaigners or world leaders. Finally, we want our students to have the confidence, self awareness and reflexivity to work independently, to network and communicate with others and to pursue their passions in the world. The Live, Love, Learn approach draws together a range of theoretical perspectives and pedagogical tools, but at its heart focuses on three core elements"

These elements can be further described as on the next page.

Table 2: Live, Love Learn



Putting My Money Where My Mouth Is: Live, Love, Learn in Practice

The following table identifies key ways in which the Live, Love, Learn approach attempts to incorporate genuine authenticity (as previously described) into curriculum design and delivery.

Table 3: Live, Love, Learn and genuine authenticity in the curriculum

Feature	Genuine Authenticity	Live, Love, Learn
Temporal	The curriculum is adapted to be contemporaneous (at this moment in time) and to the timing of delivery for the student (at this moment in their lives)	The curricula use real-world and contemporaneous case studies; no pre-prepared material is used in class – everything is researched from scratch with the students; the curriculum is tailored to the students' level of study; there are design elements that are negotiated with the students at the start of the module to help the students moderate their workload, deadlines and other life circumstances – these are reviewed as the module progresses

Feature	Genuine Authenticity	Live, Love, Learn
Status	Students are treated as students and enjoy the protected status – they are free to make mistakes and proceed under their own initiative	The students are encouraged to think of themselves as undergraduate experts – there are lots of areas where they might be considered experts, but they do not need to be fully developed disciplinarians; they are asked to complete their work to the level of undergraduate expertise; risk taking is encouraged and there are no penalties for trying something new; students are presented with choices and it is up to them to create their own learning path within the framework provided
Location	Location is a neutral space that can be adapted to the students' needs in the moment	The design and delivery is adapted to maximise the potential of the learning space to impact positively on the students' learning; the students are encouraged to work outside the classroom if that is beneficial to them

Feature	Genuine Authenticity	Live, Love, Learn
Content	Content is negotiated and might differ between students	The students make many choices about the content that they wish to include (with guidance to ensure that they meet the intended learning outcomes); students are encouraged to see their cohort as a team, to differentiate their learning from each other and then to share their work – their own work provides a focus and depth, while their review of the work of other students offers breadth
Teacher	The curriculum is tailored to the skills, knowledge and person of the teacher	The delivery of the curriculum is adapted to suit the strengths of the teacher
Student	The curriculum is tailored to the skills and knowledge needs and person of the student	The students complete skill inventories at the start of the module, and identify a core skillset that they want to improve during the module – learning activities are tailored to help them meet these objectives; different students within each team can contribute different elements to create a complementary whole; students' prior learning and life experience is valued and used as key expertise

Feature	Genuine Authenticity	Live, Love, Learn
Encounter	The curriculum is tailored not only to the teacher and the student, but to the specifics of the encounter between the two and the curriculum	The encounter between student, teacher and curriculum creates unique opportunities to further learning – these are identified and exploited for the benefit of students where appropriate
Emergence	The curriculum is dynamic and responds to various cues to best meet the needs of the students	The curriculum contains a framework within which many choices are made by the students and teacher on a session-by-session basis. The module delivery is individualised to each cohort in a way that cannot be pre-determined (although there is a range within which much can be anticipated)

Back to that Jaffa Cake moment

Throughout the time I have been developing the Change Makers modules I have considered myself working within a paradigm of pragmatism. I felt like I was noticing something which I considered to be an issue (for example, a lack of student engagement with their learning) and coming up with what I thought were straight forward solutions. However, I increasingly recognised that the nature of these solutions was quite particular to me, and many others attempting to resolve these same issues would have chosen different solutions. Additionally, I was able to recognise that I wasn't merely coming up with isolated solutions to individual issues, I was working towards some greater goal or orientation (at the moment brought together as Live, Love, Learn).

When I began work on this piece of research, I was considering the questions that I wanted to answer, my methodology, and my approach to bringing these together. And I realised that perhaps I'm not as pragmatic as I thought, and maybe I am even a little bit 'radical'. This scared me, because it sounds bigger than me. It sounds like

I'm out there trying to change the world. When really, I'm just in my classroom trying to do the best that I can to be useful to my students. But having consulted the theory books on sociological paradigms, it does seem that I fall firmly into the radical humanism camp of thinking and doing. Burrell and Morgan (1979: p22) have a great diagram (figure 6) that helps me understand what this means.

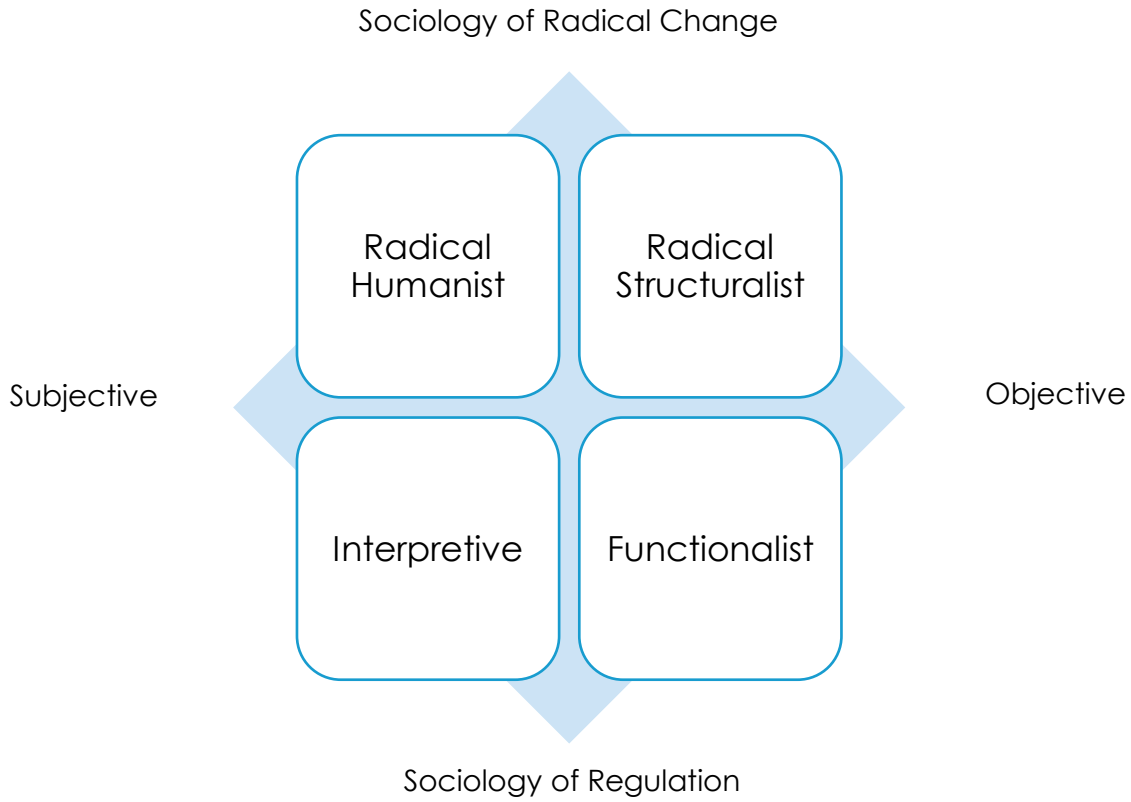


Figure 6: Sociological paradigms

In fact, I still thought that maybe I was more in the 'interpretive' camp, until I reviewed my reading, the ideas that really speak to me and the methods and processes that I value. Radical humanism operates from a subjectivist standpoint, and shares with interpretivism an approach to social science characterised by "a perspective that tends to be nominalist, anti-positivist, voluntarist and ideographic" (Burrell and Morgan, 1979: p 32). However, radical humanism is concerned with "overthrowing or transcending the limitations of existing social arrangements" (p 32). The 'overthrowing' sounds a bit alarming, but I'd go along with 'transcending'. That sounds a bit like boundary pushing, and I'm pretty comfortable with thinking of myself in that context.

And here's that detail on authenticity I promised earlier

Our exploration of authenticity has so far been rather superficial and related to the differentiation between simile and genuine authenticity, and nominal and expressive authenticity. This is a consideration of authenticity as we might 'find-it-in-the-world'. Now as authenticity is a core element of our exploration here, and as this story forms the basis of a doctoral thesis, there is room for us to get a little bit philosophical in our exploration of this notion. A good place to start is with the idea that expressive, genuine, authenticity is somehow about 'being oneself' (Dutton, 2003).

Being oneself or acting as oneself – are they really that different?

The act of 'being oneself' is inherently problematic (Varga, 2012). Imagine that you buy your friend a nice gift because they have been feeling a little down. This is a nice thing to do, and you do it because it is what you want to do. You are being yourself by being kind and generous. But now imagine that you buy your friend a gift because you want them to like you and you want them to do you a favour. Now you are acting somewhat cynically, and not buying them a gift because you truly want to, but because you are motivated by the external force of 'buying' their friendship and assistance. So you might say that in this case, you are not 'being' your genuine self. And therefore this act is not authentic. However, some philosophers would argue that as it is still you that commits the act of buying the gift, and it is still your will to perform this act, you are 'acting' as yourself. The only difference being, that in the first case you were motivated by your *internal* genuine feeling of friendship, generosity and kindness, and in the second case by an *external* motivation. Furthermore, you cannot 'act as' yourself without 'being' yourself. Varga (2012) differentiates these two acts by considering the depth of 'selfness' being used in the action. To simply act as oneself, whatever the motivation, relates to a metaphysical sensibility. Whereas if the act is also true to one's innermost beliefs or values, then that action reaches into a moral-psychological realm and transcends acting as oneself to 'being' oneself.

However, Bernard Williams, who writes on morality, truth and truthfulness, can rather come to the rescue before we get too mired in this difficulty with a beautifully simple statement, here quoted in a Guardian article about his life and work – "if there's one theme in all my work it's about authenticity and self-expression, it's the idea that some things are in some real sense really you, or express what you and others aren't" (Jeffries, 2002). So in essence, this is thinking about the problem the other way around. Whereas before, we were considering where an action was coming from (was it coming from your inner self or was it coming from an external motivation), here Williams suggests that a safer bet is to think about how the action, thought or idea correlates to your inner sense of self – it either does, and is authentic, or it does not and is not.

Who's in charge here?

Another way to explore this divide is to consider the difference between autonomy and authenticity. Broadly speaking, acting autonomously requires an awareness and control of one's behaviour, aiming to satisfy some personal objective or goal, and the ability to act without constraint from external factors (Honneth, 1995; Dworkin, 1988). Autonomy "emphasises an individual's self governing abilities" (Varga, 2012: p 2) and this ability should not be influenced by social or political factors (Schneewind, 1998). But acting with autonomy does not guarantee that an action is also authentic. (Ferrara, 1998; Varga, 2012). Beyond autonomy, authenticity requires that those unconstrained actions are also personally determined, in order to express something of one's true self.

Many consider autonomy a project of the Enlightenment, which has been somewhat overtaken by the concept of authenticity in modern times (Kant, 1790; Kierkegaard, 1843; Heidegger, 1953; Weber, 1978; Habermas, 1984; Ferrara, 1998; Varga, 2012). Ferrara (1998) asserts that the rise of authenticity in the sense of an ethical or moral premise that makes claims to normativity, has led to the "demise of the fascination with form, method, procedure and generalizing universalism typical of the culture of autonomy, and [promotes instead] the new ideal of universal validity, ultimately linked with the model of exemplary uniqueness or enlightening singularity thus far associated with 'aesthetics'" (p10). So. There is a shift being noted here from a principle (autonomy) that promoted a universalism that celebrated a commonality of approach in terms of processes, aims and ambition, to one

(authenticity) that actually celebrates individuality, uniqueness and difference. From a convergent to a divergent ideal.

Looking above and beyond

But the roots of authenticity, actually reach further back in history than the Enlightenment. Philosophers have been promoting the values of authenticity since ancient times. Expressing our inner values and living in a way that truly represented our beliefs was often thought of as aspiring to live 'the good life' – a famed Aristotelian exhortation. But before him, Socrates had proposed the dictum 'know thyself' and Plato advocated acting with one's whole soul (Warburton, 2011). However, we need to be a little careful when considering these ancient conceptions of self-knowledge. Rather than relating personal authenticity to an awareness of the inner self, in ancient times it often referred to going beyond or transcending the self (Hadot, 1992). Socrates related self-awareness to understanding yourself as part of a "cosmic web of inter-relatedness" (Varga, 2012: p 14) – knowing yourself was about knowing your place in the cosmos, an outward rather than inward mission.

Rather than being aspirational, Guignon (2004) considers this notion of the 'good life' as representing a sense of inadequacy. We need to strive towards a version of life that we are not yet living. Reviewing the sum of thinking in this area, Guignon summarises that this can be achieved in one of two ways. The first way is through a process that Guignon calls "enownment" (2004: p 7). Pursuing the ideal of authenticity, focussing inward on being and understanding our true selves, will lead to greater self-possession and empowerment to fulfil our inner potential. The second way that the good life might be achieved is almost the opposite of enownment, which Guignon calls "releasement" (2004, p 7). This recognises that you need to look away from yourself and your own personal values and "give your life over to something greater than yourself" (2004, p 7). Interestingly, this again highlights the split between the pursuit of the individual (enownment) and the joining with others in the pursuit of something greater, higher or otherwise uniting (releasement). Releasement rather makes me think of a kind of auto-emancipation – freeing yourself from what you already believe to be true about yourself, in order that you may really come to understand yourself without being limited by those precocious 'already-truths' you were believing about yourself and allowing to define yourself.

But is it ever possible to 'escape' yourself so that you can look upon yourself without being influenced and limited by your existing beliefs?

Anyway, I digress. Looking beyond yourself as a model for pursuing authenticity, became firmly entwined for many centuries with religious ideas of looking beyond or upward towards a superior sense of morality or a higher being. So it would seem that religion and conceptions of gods or higher beings as being superior and separate from ourselves drove authenticity outwards. But it was also religious thinking that simultaneously fought against this trend to bring authenticity back to being an inward focus. Sennett (1993) recognises the writings of first century philosopher Augustine as being central to this reversal – "do not go outside yourself, but turn back within; truth dwells in the inner man" (Augustine, 1st Century/1968; 39.72). However, although some credit this with being a premodern example of duality of the self (Sennett, 1993; Varga, 2012), with a 'true' inner self and a 'false' outer self, at this time this still represents an inner-and-outer- self combination that relies on a transcendent other for a sense of wholeness.

Integrity, sincerity and being true to oneself

> *This above all: to thine own self be true*
> *And it doth follow, as the night the day,*
> *Thou canst not then be false to any man.*
> *Hamlet (Shakespeare, 16th Century/1992: lines 78-80, Act One, Scene Three)*

Sincerity is defined by Trilling as "a congruence between avowal and actual feeling" (1971: p2). He acknowledges that speaking and acting sincerely is not a trivial matter, as "if sincerity is the avoidance of being false to any man through being true to oneself, we can see that this state of personal existence is not to be attained without the most arduous effort". (1971: p5).

Even knowing one's own truth is a formidable task, and one that may never be satisfactorily accomplished, as expressed by Dickens "why is it, that a sense comes crushing on me now, when I fall into low spirits, as of one happiness I have missed in life, and one friend and companion I have never made?" (Dickens, 19th Century/1938): p 620)

So taking further this idea that sincerity and authenticity might be brought into sharp focus when considering them as a matter of how we represent ourselves to another, it might be helpful to refer to Goffman's (1959) ideas about the socially constructed nature of our identity. He states that "many crucial facts lie beyond the time and place of interaction or lie concealed within it. For example, the 'true' or 'real' attitudes, beliefs, and emotions of the individual can be ascertained only indirectly, through his avowals or through what appears to be involuntary expressive behaviour" (1959: p 13-14). He goes on to say that man's identity is communicated in two ways, through "the expression that he *gives*, and the expression that he *gives off*" (p 14). Just as sincerity is possible in both modes, so is insincerity. In the first instance we can act to deceive, and in the second we can feign a position or identity that is not truly our own.

So sincerity is related to a sense of truth, an objective match between inner feeling and outer being. But the motivation for this is not personal virtue. Sincerity operates to prevent one presenting a false account to others (Varga, 2012) and therefore requires the scrutiny of the other. Whereas authenticity requires one to be oneself, for and only for oneself (Ferrara, 1998). This can draw sincerity and authenticity into feisty opposition as sincerity is therefore socially defined, and authenticity is not. When you represent your true self in order to fulfil a social role rather than for your own individual sense of self, you are automatically acting inauthentically even if the act would have been authentic if it were not socially motivated (Ferrara, 1998).

Recognising sincerity as being an expression of who we truly are, but tempered by the knowledge that this expression is motivated by social expectation, Trilling (1971) goes on to say "society requires of us that we present ourselves as being sincere, and the most efficacious way of satisfying this demand is to see to it that we really are sincere, that we actually are what we want our community to know we are. In

short, we play the role of being ourselves, we sincerely act the part of the sincere person, with the result that a judgement may be passed upon our sincerity that it is not authentic." (p 10)

Society is the enemy of true authenticity

Hegel (1979) goes one step further asserting that sincerity and honesty merely represent submission to a given morality, which is particular to a socio-historical circumstance, and that this is a denial of true spirit and the essence of freedom. In other words, we are bounded by the time and place of our existence and by the social encounters that define our presence in the world. We can only act within this framework of space, time and encounter. We don't really have the freedom to pursue any sense of true authenticity.

Rousseau (1994) took this idea of a fundamental corruption of personal authenticity by society and argued that living in a 'state of nature' (away from social situations) allows individuals to be free and live uncompromised lives. Society introduces "mutual dependence, inequality, servitude and oppression" and the "deformation of human nature begins" (Guignon, 2004: p 56). Rousseau (1994) draws on ideals that represent moments in collective and individual history when we are free from the demands of society – the noble savage from pre-history, and the child from pre-adult moments in the lives of individuals, and cites these as being critical to the pursuit of inner wholeness.

But maybe the constraints of social living are not all bad - for Camus, it is the inherent absurdity of the world around us that allows us to pursue the authentic (Golomb, 1995). It is only because the world has no objective morality and purpose that we can find these for ourselves in the pursuit of self-realisation. When we realise that the world cannot provide us with freedom, we also realise that we need to find it for ourselves (Yacobi, 2012).

One might therefore consider that this interplay between inner identity and the identity that societal expectation drives us to deliver means that sincerity is an increasingly eroded concept. Indeed, many people believe that sincerity has become an anachronistic term. Saying 'I sincerely hope that you are well' has come to mean 'I really hope that you believe that I hope you are well' rather than 'I really

hope that you are well'. And signing off a letter or email 'yours sincerely' has become a stilted formality that introduces distance and a lack of emotional connection and clarity rather than enhancing it (Trilling, 1971).

Authentic in relation to … what? And … when?

As Sartre (1957) writes in Being and Nothingness, authenticity does not relate to any objective qualities. Unlike sincerity and honesty, authenticity is not a quality that one can identify in a person in the way that one can identify that a "table is round or square" (p 55). Authenticity "signifies something beyond the domain of objective language, while the notions of sincerity and honesty have to do with attributes to which language can refer directly" (Golomb, 1995: p 7).

So, even though it might seem that 'sincerity' was quite difficult to define above, it has the benefit of being related to an essential truth, which lends it some degree of objectivity. Authenticity does not have that advantage. In fact, Sartre (1957) goes on to define authenticity as related to human reality "which is what it is not and which is not what it is" (p 58). Sartre sees authenticity as being something that we can only recognise when it is absent – or in other words, we can identify things that are inauthentic more readily than things that are actually authentic. Many of the existentialist writers view authenticity in these negative terms - understanding a concept by defining what it is not (Golomb, 1995).

While Sartre uses the negative to help define authenticity, by recognising inauthenticity, Heidegger had earlier argued that authenticity and inauthenticity are not mutually exclusive. Heidegger felt that authentic living involved accepting all the constraints placed on experience by the nature of the world, and of society. And these constraints also included the prospect of our own mortality. Only when all these elements are properly considered can authenticity be pursued. But alongside authenticity, will inevitably be inauthenticity. While we might achieve authenticity in some areas or domains of life, the complexity of our existence will mean that inauthenticity necessarily exists in others (Yacobi, 2012).

Additionally, sincerity and honesty have the benefit of being static concepts with some temporal stability. What is sincere or honest on one day, has a legacy and a future. However, authenticity "requires an incessant movement of becoming, self-

transcendence and self-creation. It calls for no particular contents or consequences, but, rather, focusses on the origins and the intensity of one's emotional-existential commitments" (Golomb, 1995: p 9). So whereas sincerity relies on ethos, authenticity derives its power from pathos.

It's the 'how' not the 'what'

> *"the thing is to find a truth which is true for me, to find the idea for which I can live and die"*
> *Personal Journal Entry (Kierkegaard, 1938: p 15)*

So if authenticity is a concept so lofty that it is beyond language, so restless that it is beyond definition and so individualistic that it is beyond common understanding, how can it ever be communicated or championed?

Well, much writing on the topic, especially from existentialist writers, takes forms other than standard exposition. As Golomb (1995) notes, there are "lectures, essays, dialogues and poetry" (p 18) from the less adventurous such as Heidegger, and "short stories, novels, plays, poems, aphoristic essays, fictitious diaries, biographies and even autobiographies" (p 18) from others. To write about authenticity in any kind of systematised, traditionalised or formalised way is only to write inauthentically. To be authentic and to write authentically, one must "eschew the protective ethos of objectivity" (Golomb, 1995: p 18).

And to write in such a way, requires a different type of thought and intention. Stepping away from Western thought for a moment, what does it take to bring the authentic self into existence, and to privilege this within existing paradigms of method and process?

> "Methods have underlying assumptions, implying theoretical positions and basic premises. There are two standpoints: perceptual, which has a literal reality; and imaginal, which has a psychic reality. In putting images together into story, I use imagistic thinking, employ an imaginal awareness. I'm guided by the spirit of the image. My naguala (daimon or guiding spirit) is an inner sensibility that directs my life – an image, an action, or an internal experience. My imagination and my naguala are connected – they are aspects of the same process, of creativity. […] This mode of perception is magical thinking. It reads what happens in the external world in terms of my personal intentions and interests. It uses external events to give meaning to my own mythmaking. Magical thinking is not traditionally valued in academic writing." (Anzaldúa, 2015: p4-5)

The aims of existentialist writers are not to communicate a set of ideas about authenticity, a body of knowledge on the topic or even a single argument. Rather they are to "evoke in their readers the pathos of authenticity […] to restore personal mental power and the sense of selfhood that modernity had diminished […] to provoke us into creating genuine selves" (Golomb, 1995: p 19).

Kierkegaard wrote extensively about being true to himself, and pursuing a quality of life that represented this truth. However, it is immediately apparent that this pursuit is not for a specific and concrete 'thing' but rather the search for a path in life or a way of being (Golomb, 1995). Linked to this idea, is the fact that as a philosopher, Kierkegaard did not merely think about concepts in the abstract, but he united his thinking and practice, and lived his ideas in the real world. In fact, this is common to many of the existentialist writers. Shortly before he died, he wrote that "my task has continually been to provide the existential corrective by poetically presenting the ideals and inciting people" (Kierkegaard, 1967: p 331) – thus fulfilling the three

elements of living by his philosophy, using literary means to communicate these ideas and trying to entice his readers indirectly to find their own authenticity.

Many thinkers from Rousseau onwards have conceptualised this essence of being, becoming, growth and movement as an antithesis to static, well attuned function in the metaphor of the machine and the tree (Berman, 1970) – "human nature is not a machine to be built after a model, and set to exactly the work prescribed for it, but a tree, which requires to grow and develop itself on all sides, according to the tendency of inward forces that make it a living thing" (Mills, 1859: p 45)

Sartre (1957) too, related authenticity to a continual redefining of the self. He didn't believe in a person having a pre-defined nature and living authentically required taking ongoing responsibility for our lives. We have the freedom to make choices and define our own actions, and that is a continual process. The anxiety provoked by this constant process of choice and self-defining action should also be seen as a part of the authentic life (Yacobi, 2012).

I can only hope that as this story unfolds, I can honour some of those ideals. I have chosen a non-traditional style of exposition, including pictures, poetry and storytelling. And while I don't claim to have the ability to 'restore your personal power and sense of selfhood', I hope that I can leave enough space in the writing for you to feel included and supported in your exploration of issues around higher education and authenticity. Further, while the nature of a thesis demands that I do at least try to communicate some defined ideas and arguments, I hope that these also retain a flexibility and generosity of expression that accommodate multiple interpretations and understandings. Finally, I really do hope that this writing proves somewhat provocative, although I will deal mainly with the means and leave the ends to you.

Method(ish)

Be sure when you step, step with care and great tact. And remember that life's a great balancing act. And will you succeed? Yes! You will, indeed! (98 ¾ percent guaranteed)

Oh, The Places You'll Go (Seuss, 2016: no page numbers)

Data Found Poem 2: This is lefty liberal nonsense

Smithson

Garrett

if Liz had just put us in a room

I would have written sixty thousand words

babble and waffle

if she had come to us at the start

and was like

'I want you to come up with a really mental idea

a really left field one

you're going to do it properly

left field but good'

I would have lost my mind

we had the illusion of free choice, it felt very free

but there was enough to hold on to

you didn't lose yourself in the tide

like last week

essay speed dating

I came without a clue

then out of that

the rough structure of my whole essay on post its

this has been an overarching theme

Liz does something really left of field

I think this is lefty liberal nonsense, it's never going to work

and then it works

how frustrating is that?

she'll be like 'what about this'

and you're like 'that's nonsense'

and then, oh my god, that's not

nonsense

Remind us - what is going on here?

I am investigating the nature of authenticity in my curriculum design and in the learning experiences that will take place in my classroom over the course of a year. I am exploring this at a particular institution (Imperial College), within a particular programme of learning (Change Makers, Imperial Horizons) and with a particular subset of students (mixed discipline 1st, 2nd, 3rd and 4th year undergraduate science, maths, engineering and medical students), to provide a cross sectional insight into my own classrooms and work with students over the academic year 2018-19.

The specific research questions being addressed are:

1. Does the curriculum design within the Change Makers programme offer opportunities for students to demonstrate genuine authenticity in their work?
2. Does the curriculum design within the Change Makers programme offer opportunities for genuine authenticity of engagement between members of the class (students with students and students with teachers)?
3. Does this curriculum design make the student learning experience explicit to the teacher in a way that facilitates robust contemporaneous data collection and research to be undertaken?
4. Does any research undertaken in this context offer insights that extend beyond these particular classrooms?

Purely from an educational perspective, these questions could be answered in relation to the curriculum – investigating the planned, delivered and experienced curriculum (Prideaux, 2003). However, I want to bring these curricula elements together under the umbrella term of design, and marry them with a further, more explicit investigation of experience that moves beyond the curriculum into other individual and relational aspects of the learning encounter. Therefore these questions will be addressed in the exploration of an auto-ethnographic and other-ethnographic account of this year of learning and teaching activity.

Getting to the nitty gritty of the question(s)

In order to think about researching learning and teaching, it might be helpful to break down the process into different types of awareness that can be accessed

and interrogated. You could summarise the endeavour as in the below diagram, onto which the research questions can be mapped (Figure 7).

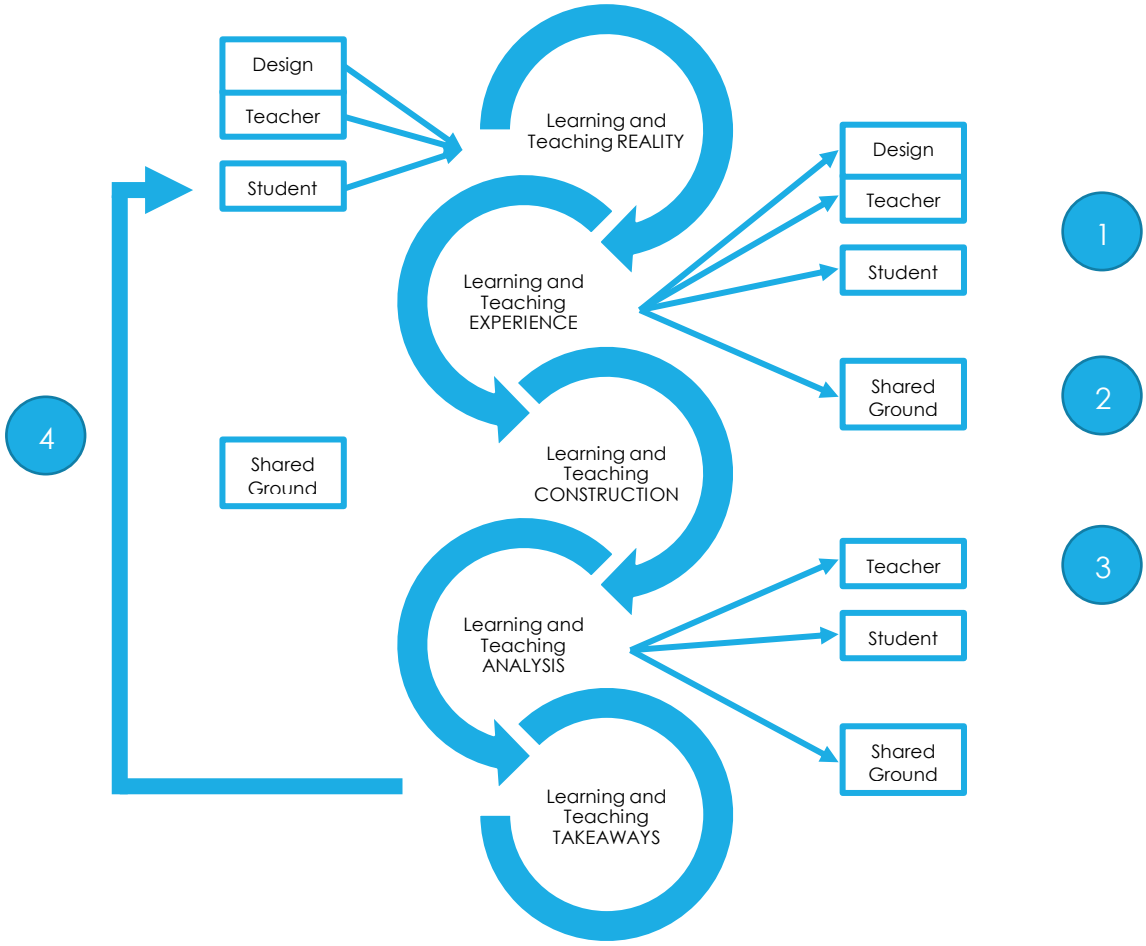


Figure 7: Diagram of learning and teaching process mapped to research questions

Let's work through this diagram in a little more detail. To begin with, one might imagine that there is, in some sense, an objective reality or fact constituted by the learning and teaching itself. This is shaped by the design and the participation of the teacher and student. This reality is accessed via experience – and this experience is both individual to the teacher and the student, as well as shared in the sense of a coming together in joint endeavour. From this experience, a process of sense-making occurs, and meaning is constructed. Again this occurs for the teacher and student individually, and together as some negotiated expression of what has occurred. These meanings might be more or less explicit depending on the exact

context. In turn, these meanings or constructions, give way to some level of analysis. What do these constructions tell the teacher and student, and how can they be shared? And lastly, this analysis is cemented as a takeaway. Some idea, concept or construct that the teacher, student or both together might take to yet another encounter or to some other context entirely. And at each of these levels, it is possible to ask questions, to examine, investigate and draw meaning. From a number of perspectives. Laurillard's (2002) Conversational Framework helps us to understand how these perspectives typically come together in a learning and teaching encounter (Figure 8).

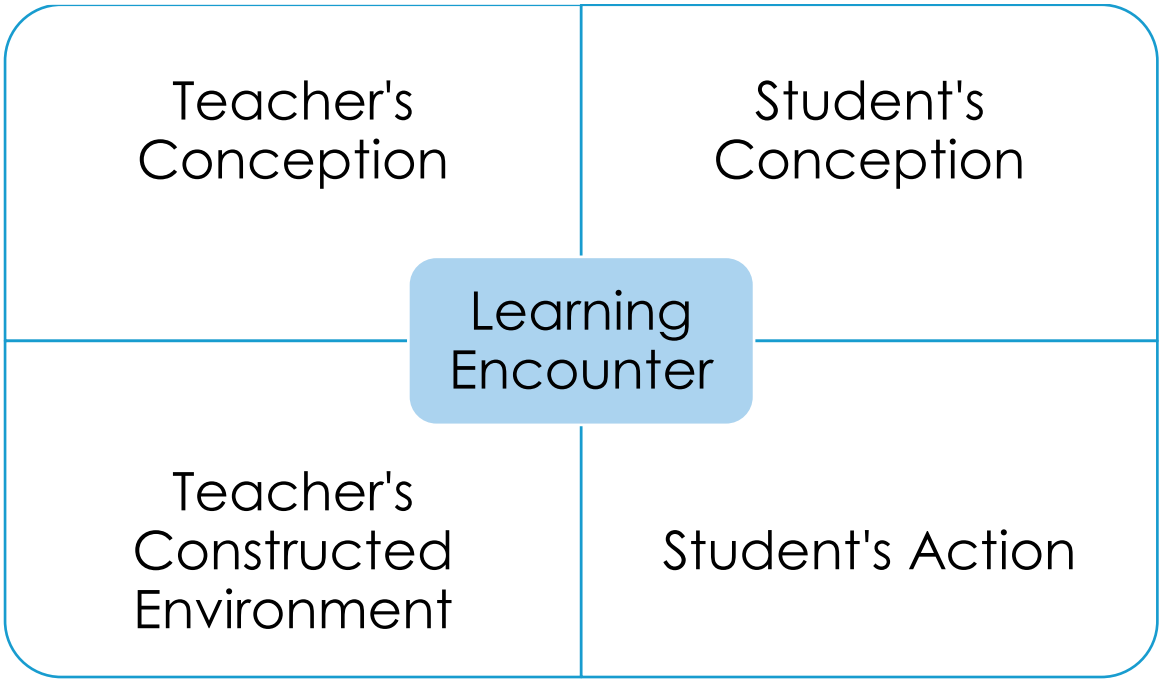


Figure 8: Adapted from Laurillard's (2002: p87) Conversational Framework

Individually these might satisfy specific research questions or sub-questions, but taken together what might be revealed that can inform, provoke, puzzle, challenge or inspire?

Is reality really real?

> *"Nothing ever becomes real 'til it is experienced — even a proverb is no proverb to you 'til your life has illustrated it."*
> *Letter to George and Georgiana Keats (Keats, 1819)*

Using this simplistic representation of the learning and teaching endeavour (Figure 7) makes several assumptions that need unpacking a little as shown in Figure 9.

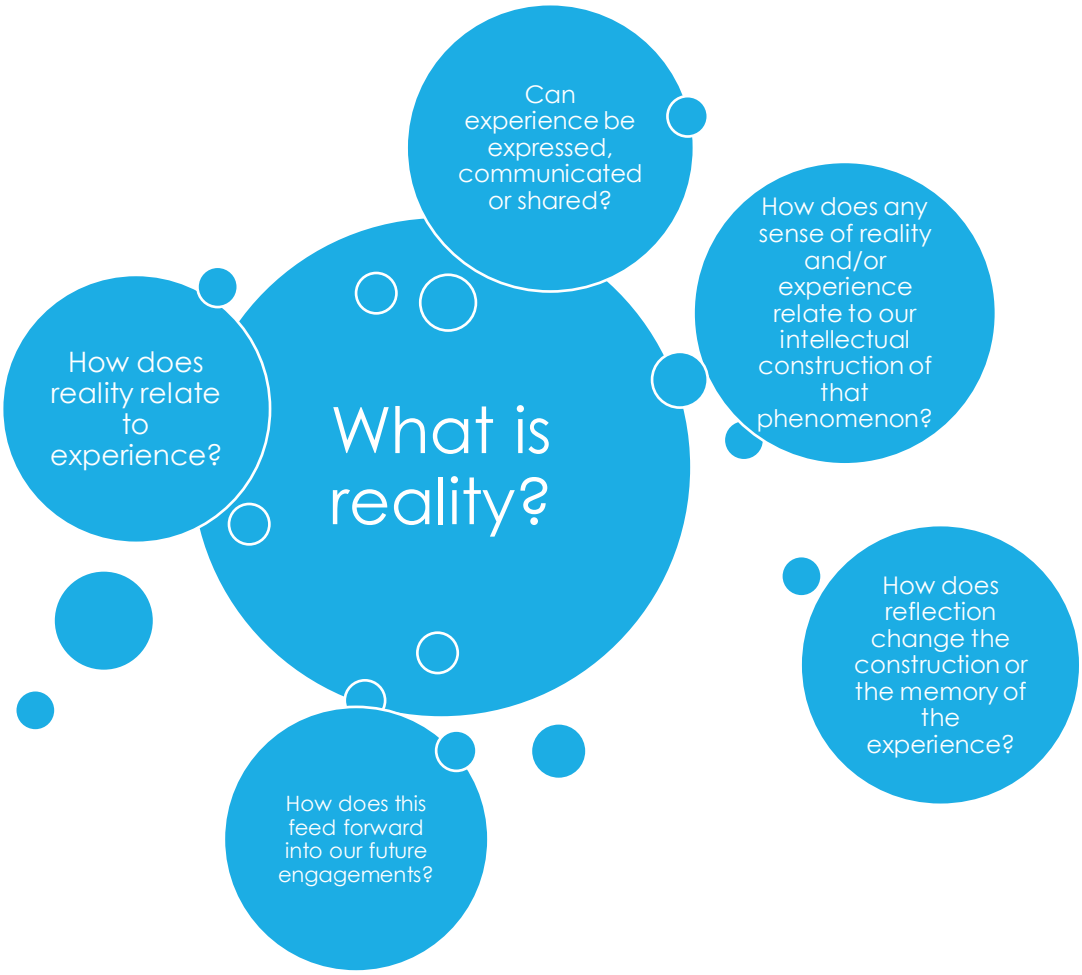


Figure 9: Unpacking Reality and Experience

Let's begin with reality. Perhaps later, we'll wander further afield in our sense of how we conceptualise reality, but for now, let's start with my own awareness of reality, as a white, middle class Westerner.

Reality is something that in our everyday life we take for granted. We operate as though there is some objective sense of reality, within which we exist. Many philosophers would take issue with this, with Sartre stating that "Il n'y a de réalité que dans l'action" ("there is no reality except in action") (Sartre, 1948: p47) Further he adds "Man is nothing else but what he purposes, he exists only in so far as he realises himself, he is therefore nothing else but the sum of his actions, nothing else but what his life is." (p47) This view privileges human intention and motivation within the realm of reality. Only human action can bring something to reality. With a literal reading, this might sound as though Sartre is stating that only by moving and physically interacting with the world is any sense of reality generated. However, it is almost more helpful to think of the inverse – inaction renders the reality around us out of our reach. I don't think it is the physicality of movement that Sartre demands, but rather a critical engagement with ourselves and the world to create a sense of our place in the world and the world's place within us. And this is rather reminiscent of that 'critical being' we discussed earlier (Barnett, 1997).

Some philosophers go even further, suggesting that experience actually precedes any sense of reality, with reality being a product of experience (which would require some major adjustments of my little diagram in figure 7) - "reality only exists for us in the facts of consciousness given by inner experience" (Dilthey, 1976: p161).

And in fact, this view is found widely in literature, such as in Herman Hesse's Demian, when Pistorius tells Emil "there is no reality except the one contained within us. That is why so many people live such an unreal life. They take the images outside of them for reality and never allow the world within to assert itself" (1960: p107).

It might seem that I'm introducing these ideas as a way of denying the existence of some objective reality. That in fact, reality does not exist except in our minds, or within our individual experience. However, I think that the important thing to realise is that we cannot know about any objective, outside of human-mind reality. We cannot access any sense of externality or reality without experience. We can only look out from within. Which is why the issue of 'experience' is so key to this research. And so at this point, our thinking must move from the existence of 'reality' to the means with which we can engage with it.

I spy, with my little eye…

> *"we are talking about the perceived world and not a metaphysical world without a knower"*
> *(Rosch, 1978: p29)*

Our only access to the external world is through our various senses of perception. We tend to think of our senses – sight, smell, hearing, taste and touch as being 'automatic'. They are always switched on, and we are alerted to the signals produced by those senses. However, Alva Noë offers us a view of the senses that builds on Sartre's idea of reality being generated through action. He states that "perceiving is a way of acting. Perception is not something that happens to us, or in us. It is something we do. Think of a blind person tap-tapping his or her way around a cluttered space, perceiving that space by touch, not all at once, but through time, by skilful probing and movement." (2006: p1) The experience offered to us via our senses is built from lots of different pieces of information that we use bodily skill to gather. Perception is not a passive process – we choose what to pay attention to and what to 'filter out'. We turn our head, follow with our eyes, move towards (or away from) things that interest (or disinterest) us.

When we think of perception, we perhaps think of the images that are generated in the brain. Some of these might seem to be de facto images of the world-as-it-is. Some are more imaginative or fantastical. But these images do not arise automatically, "perception is inherently thoughtful" (Noë, 2006: p3).

Noë further states that movement or active engagement is required for our senses to continuously gather information. Static inputs become blunted in our consciousness. Small movements of our eyes, adding new details to our internal visual image, keep that image alive. Imagine putting your watch on at the beginning of the day. You are very aware of the pressure around your wrist for a few moments. And then, when that sensory input becomes continuous and static, we cease noticing it. Until we pull on a jumper and the sleeve snags on the watch face and we feel it pull against our skin. We notice it again transiently, before it fades back out of awareness. This is necessary to stop our system being overloaded with sensory information. We make

unconscious choices based on movement and change in the sensory fields about where to place our attention.

An extension of this is the idea that we are constantly deluded about the quality and totality of our perception. Imagine now a photograph of a landscape. Wherever you look in the photograph, there is rich detail – trees, perhaps a horse grazing in a field, a rushing stream cutting through the foreground. And this is what we imagine we see as we look at that same landscape ourselves. But that is not how perception, and in this case specifically vision, works. We see more than the rectangle framed by the photograph. But we also see less. We don't see an equal amount of detail everywhere in our visual field. We only see detail where the focus of our gaze lands. And then as our eyes move across the scene, that focus shifts and we gather detail from a new spot. "The impression we have of the presence and richness of the visual world is an illusion. We have the impression that the world is represented in full detail in our consciousness, because wherever we look, we encounter detail." (Noë, 2006: p49)

Bearing some of these ideas in mind as we proceed with our story will be important – we mustn't forget the element of active engagement and intention that is required to perceive something, to be aware of a phenomenon and to experience an interaction, an incident or just a moment passing by.

Moving from seeing to seeing what others see

> *"Life is not a problem to be solved, but a reality to be experienced"*
> *(van der Leeuw, 1928: p9)*

So our access to 'reality' is through our senses and our engagement with the world, which together constitute an internal representation of that reality as 'experience'. For research, this presents some challenges. If we are investigating experience, we are not looking for 'reality' or some ultimate truth, but rather an individualised, humanised version of that. We might want to consider the 'reality' that stimulated the experience, but it is the experience itself, that highly subjective, processed, self-moderated, interaction-with-reality that is under the microscope. And experience is not a static, documented representation that can be examined, re-examined, shared and interrogated like an objective artefact. "The desire for fixed standards in

science is challenged by the frightening indeterminacy of experience." (Hastrup, 1994: p237) In fact "a central methodological problem […] is how to deal with the flow of intersubjective human experience without dehumanising it, that is without deconstructing it as experience and transforming it into totalising professional models of knowledge." (Kleinman, 1992: 190)

I would even go further than this, and say that experience is not something that can be directly interrogated, even within oneself. Because as soon as we try to consciously communicate, relate, relive or otherwise explore an experience, we are committing a level of processing that enables us to make sense of the experience – "human actors have a universal drive towards making sense, which implies an ongoing transformation from experience to knowledge" (Rudie, 1994: p29). This sense-making action changes the nature of the experience. It is highly subjective and depends on our prior experiences, how recent this particular experience was, how it made us feel at the time, how we are feeling at this moment when we are reflecting on the experience, other experiences that we have had since, and finally the reasons why we are choosing to reflect on the experience at this time. Hastrup states that "experience is always emergent, never preformed" (1994: p9) and I would argue that is also the case for sense making. And the reflexive nature of the relationship between experience and sense-making means that neither phenomena is fixed, the experience dictates the sense that is made of it, but in return that sense alters the 'record' of the experience. And this to and fro continues ad infinitum.

Further difficulty is introduced when we are trying to investigate the experience of another person – whether or not an experience can actually be described in words, it requires imagination to conjure up the experience of another person within ourselves (Kohn, 1994). In fact, Kohn goes on to say that "shared experience is the stuff of art, poetry and imagination" (1994: p20), but it is shared experience that is often associated with the type of observational research that I am undertaking here. It is really important that I am clear that I cannot share the individual experiences of my students, I cannot know these experiences and I cannot make truth claims about them. However, I can come to know what the students are able to communicate about these experiences, I can observe reactions and interactions and try to understand what these might add to the emerging 'picture' of the

experience that I am trying to access. But ultimately, my efforts will result in my own imaginings of those student experiences.

Now, much access to experience, especially that of the 'other' is via language – after all language is "the best mirror of the human mind" (Leibniz, 1982: p333). However, as researchers we are "painfully aware of the discrepancy between the richness of the lived field experience and the paucity of language used to characterise it" (Bruner, 1984: p6). However, I think that there is another, more subtle type of 'knowing', that is not language, not culture, not process or practical mastery. But rather a human knowing, that is only achievable by empathic engagement of one human being with another (Carrithers, 1992), and that is what I hope can be brought out in this research and within this story.

Making sense of what we see

Finally, let's just say a few words about that sense making process - the internal machinations that take experiences and turn them into some form of knowing. We mustn't neglect that the sense-making process introduces new information into the system. Making sense requires "a constructive effort of the mind to supplement features that are not observable to the senses" (Vendler, 1984: p205). There is creativity and imagination involved in bringing experience to conscious awareness and sense making. However, this does not somehow undermine the validity of that experience, rather it adds to the experience something of the 'experiencer'. Our sense-making is hugely influenced by our prior experiences – we are not naïve beings making sense for the first time and could be considered in the context of learning philosophy (Piaget, 1971; Vygotsky, 1978; Bruner, 1960). The information is richer rather than poorer, it is just important to be aware of the range of inputs that create knowledge out of experience (i.e. that part of the articulation of an experience comes from the experience itself, and part of it from the person communicating and making sense of that experience).

Generally speaking, understanding our own experience occurs at two levels – a practical and short term level (to ensure that we respond appropriately in the moment) and an analytical or longer term level (to allow us to reflect and learn from the experience) (Rudie, 1994). Rudie (1994) further suggests that these two levels advance our awareness and internal articulation of an experience through the

following stages, shown in Figure 10. We begin with a simple, perhaps abstract 'imprint' of the experience. This has no language or other form of categorisation attached. As we turn our attention to that imprint, we tell ourselves about the experience. We identify, name and describe the experience internally, and then sometimes tell others about the experience. As we begin to search for meaning in the experience, we advance multiple understandings – we try on lots of ideas to see what fits. This back and forward with ideas, feelings and meanings is a divergent part of the process. We are moving from that single imprint, to a variety of concrete, abstract and even symbolic articulations of what that single moment means to us. Our dialogue with others and within ourselves leads us to narrow down this range, bring our ideas into focus and find the understanding that offers the 'best fit'. This may be particular to the context – to the individuals with whom we are communicating, or to the situation in which we currently find ourselves. There may be still further good fits generated in different circumstances. Finally, out of confirmation (within ourselves and with others), satisfaction and perhaps habit (the more we think or say a certain thing the more natural or certain it feels), we begin to reify the fruits of that initial imprint as personal fact.

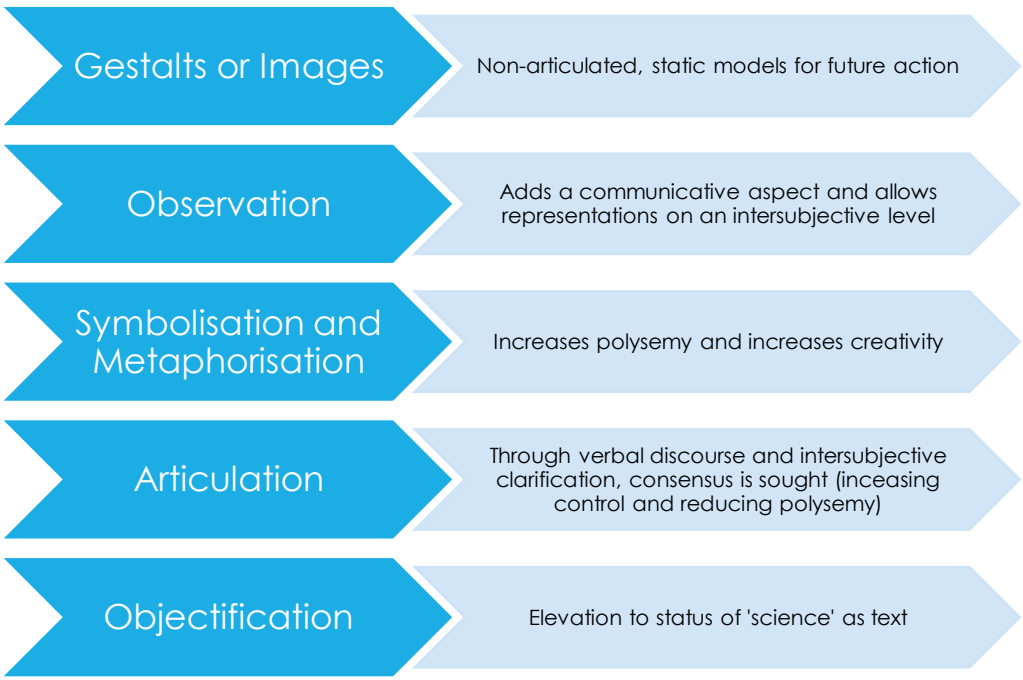


Figure 10: The process of converting experience to knowledge (Rudie, 1994: p31-32)

The classroom in question

Now all this experience and the observation of it that we are focussing on here will be occurring in my classroom over a single academic year. I've mentioned my now-fabled classroom several times, and I've introduced some of the values and features of my curriculum design at a relatively superficial level. I think it is time to dig in a little and consider the specific examples that underpin this research and story.

Data Vignette 2: What will happen here?

Autoethnographic reflection two days before teaching begins

> Thursday 4th October 2018
>
> It has been a hectic day, interviewing for my new teaching fellow. The interviews were supposed to have been over a month ago, but there was an administrative delay. And now we have found ourselves interviewing just days before the start of the teaching year. And we had so many great applicants, we have tried to cram in extra interviews. On this Thursday, our final preparation and planning day. But the interviews are done now. The intensity, the struggle, the choice. I'll take the night to live with the decision before committing and calling the successful applicant in the morning. Deep breath. What else needs to be done today?
>
> I need to check my room allocations, which have been confirmed while I have been in the interview room. I'll be teaching three classes each week, so I have three rooms to check. The email doesn't tell me good news. I haven't got great rooms. I've got somewhat terrible rooms. And I haven't got my lucky room. The room where I've had all my best classes.
>
> Before I go home, I need to go and check out these rooms in person. Stand in the spaces, check the logistics, imagine the classes.
>
> Two of my classes are in the same building, the Sir Alexander Fleming Building (SAFB). I've got a seminar room and a lecture theatre here, in the Life Sciences building. Up the big staircase, and my seminar room is one of the rooms on the right. It's the first door at the top of the stairs, off the wide mezzanine.

The room is a little strange, with an open, empty space as you enter the door, that runs right to the fire escape at the back of the room (dodging round a large pillar on the way back). The main body of the space is to the right of the door. There is a large podium with computer and visualiser, in front of the pull down projector screen that covers a large, stained white board, with a smaller (even more stained) white board either side. The seats are individual wooden seats with heavy metal legs, and drop down note tables. Some are functional, some are broken. But all in neat rows.



Data Image 1: Teaching Room, SAFB 122

It will be my third year class in here. Lessons From History.

This will be good, the seats can be re-arranged into groups, and moved to the side if necessary. But the seats will need replacing in straight rows at the end of each class. It will be uncomfortable, these seats are hard and unforgiving. It will be uncomfortable, those note tables are not big enough for laptops or anything bigger than A4 paper. My first activity uses large sheets of paper. It won't work on the tables. Can I ask the students to sit on the floor? Will they? Is that reasonable?

There are two wobbly freestanding tables. And a freestanding whiteboard at the back of the room, resting below the clock.

I count about sixty chairs. My class is capped at fifty. We will fit.

The room is neither warm nor cold. It is neither bright nor dim. The room has no feel. It is soulless. It is large and square. Harsh.

I cannot imagine my students here. I don't know my students yet. I know their names, but not their faces. I cannot imagine them here, faces or no faces. I cannot imagine the work we will do together here.

I stand listless near the entry way. I don't see myself behind the podium, but I cannot stand beside the podium without blocking the screen.

I move to the podium and try to project my imagining into the room. My class will be happening here, so it must have an image. I imagine the students arriving. Just a few at first, where will they sit? Probably a few in the front, a few in the back. Then more arrivals, sitting in the middle. No one committing to being near to anyone they don't know. Some students will know each other, and they will greet each other, start building spaces and shapes in the room. They will have an energy, an exchange.

I will have to make the decision to start. I will know that not all the students have arrived, but I will have to start anyway. Begin the welcome, and nod warmly at latecomers.

After the welcome, some basic module information. And then begin the activities. How will it feel when all the students stand, move, talk at once? How will we make sense of the space? How will we navigate our time together here? Will a warmth emerge? Will the room become hot with ideas, conversation, argument, resolution?

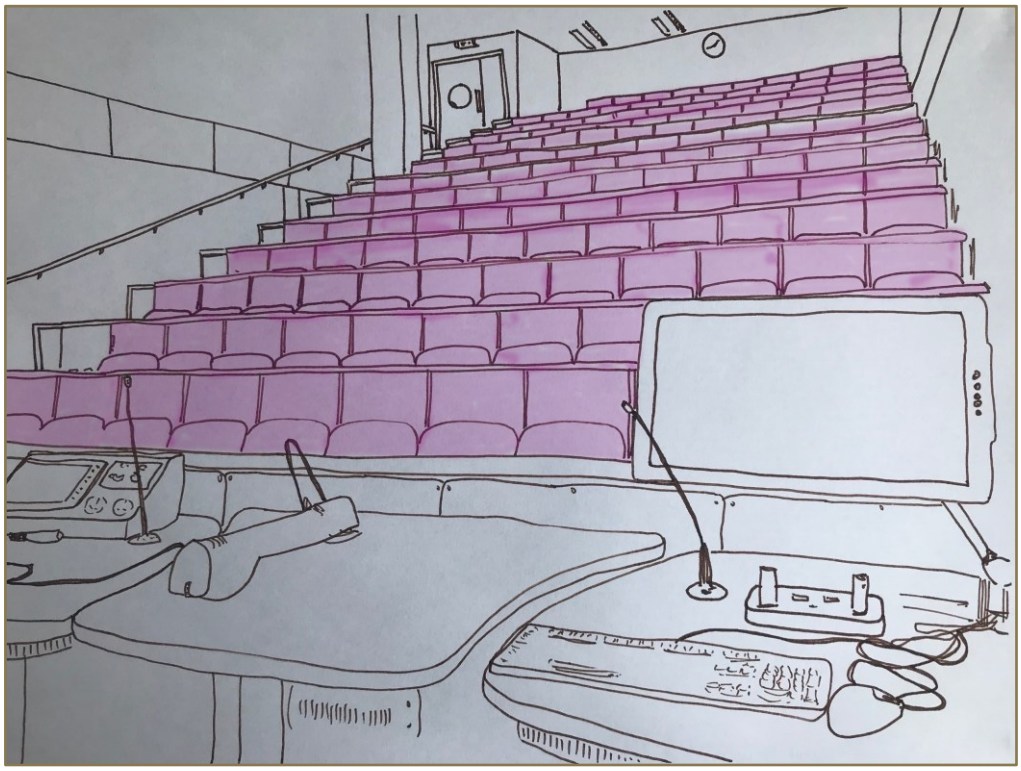
What will I be here? What will I do here? As a teacher and as a researcher. As a human. A person.

This will be the fifth time that I have delivered this module. I try to imagine each of the four previous cohorts in this room. Where would Dimitrios sit? Ben? Mich? Julia? Where would the 82 sit? The Disaster Busters? Supreme Teddybear? The Noodle Squad? The Hustlaz?

Will the resident trouble maker, argument maker and ultimately hard-work-but-worth-it student sit in the left corner at the back? As usual (except the one year where that particular student sat in the middle at the back)? Will the try-hard-but-not-excel team sit near the front on the left? The spirited-heart-in-the-right-place-but-a-bit-rambunctious team sit front right? The less-memorable-middle-of-the-roaders in the middle?

Enough. I've got two more rooms to visit. Onwards to the next room in this building. A lecture theatre. The back entrance to the room is just across the mezzanine, the front entrance down the stairs, round the back of the building, through a hard-to-find corridor. I enter through the back door, descend the dizzying steps and look back up the room.

My heart sinks. The rooms is as I remembered. Steeply raked, with only one aisle to enter the rows of seats. I have attended meetings and talks in this room, and felt deep claustrophobia sitting in the cramped rows. Once you are seated, there is no way out (unless 10-12 people stand and file out of the row to let you out). There is little flat space at the front of the room and none at the back. You enter at the top of the steeply stepped aisle. Which is also the fire escape. The walls are inaccessible, we can't stick or hang things on the walls for group work.



Data Image 2: Teaching Room, SAFB G34

It will be my tri-partite, large first year module in this room. When I last checked, the module had 173 participants. And a quick count confirms that this room has 150 claustrophobic, inconvenient, inappropriate seats. Where will the other 23 participants (or possibly more in a few days' time) sit?

They can't sit on the steps – that's the fire escape. At this rate they'll be sitting on the floor around my feet.

This is a disaster.

This will be a highly active, large and small group-work, participatory class.

I know that this room is terrible for sound. Discussion is impossible – you can't hear what anyone says unless everyone shouts. I can project from the front, but I won't be able to hear the students and they won't be able to hear each other.

The first activity involves all 170+ participants on their feet, moving, sharing ideas, forming teams, mixing and reforming, creating a blue-print for the module that we develop collaboratively. How will this work?

This is a disaster. There is nothing for me to imagine here. I need to recalibrate. I will not compromise on my learning design. I will achieve active learning here. I will achieve collaboration, co-design and messy, powerful activity. But I need to rethink everything. I cannot stand here being disheartened. I cannot think in this room. I cannot imagine. There is nothing for me here. I will move on and think about this later.

My final room is across campus. In the Maths building. I enter from the walkway, and immediately turn left down a strange, partitioned stairway. It is shiny and black. And steep. It is often crowded with students, and the partition bannisters make it cramped and tight. You can't pass anyone on these stairs. And the black disguises the treads, so it is easy to miss your step. Anyway. I haven't found the room yet, I can't stand around obsessing over the stairs. At the bottom I start checking room numbers, but they're not even close. I pass a lecture theatre I had a previous year and remember what happened there. Good things. I'm now at the front of the building, there is a reception desk. Judging by the room numbers, I must need to go down. But I am at street level now. I've already come down. But behind the reception desk is another stairwell. Down further and further.

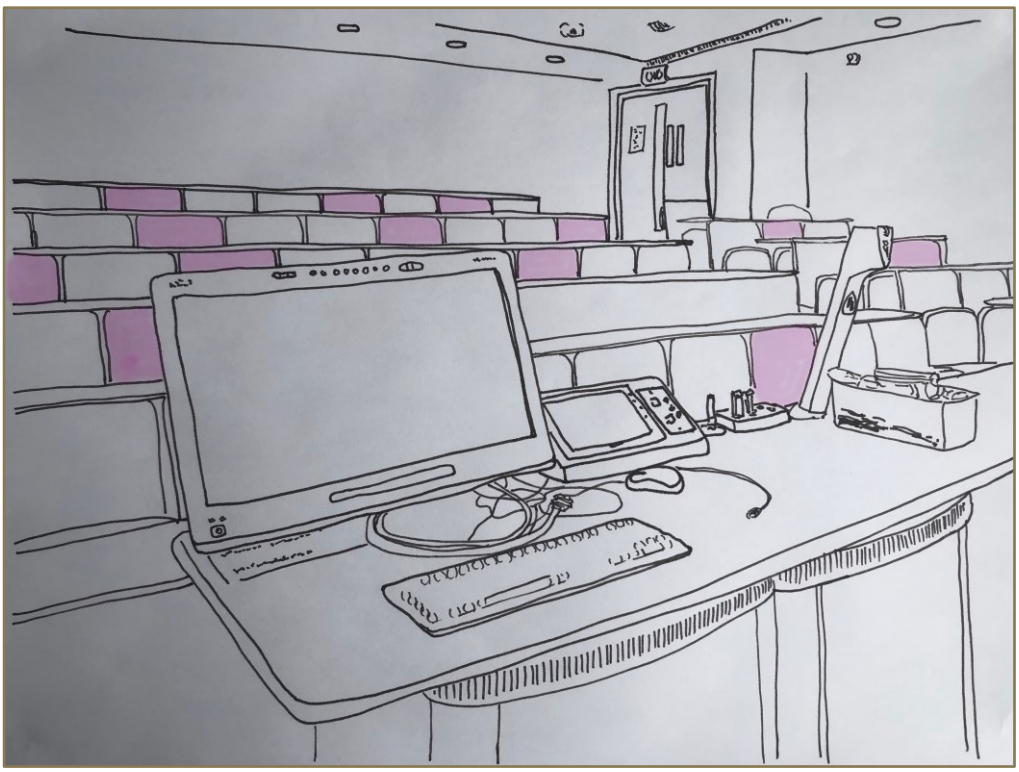
Finally, I emerge in a dim, low-ceilinged corridor. There are student lockers along the length. It feels like a secondary school for a moment. I do not know this area at all. There are lots of rooms on the right, and tiny lecture theatres on the left. Right at the end of the corridor is my room. One of the tiny lecture theatres.

I enter and feel a little oppressed. The ceiling is low, and try as I might, I can't get the lighting to be anything but dim. It is a gently raked space, with three banks of seats. A great long bench along the front with the computer and

visualiser. And a huge box of whiteboard markers. This cheers me up. I fiddle with the lights a little longer, but I can't make the room any brighter.

This will be the room for my tri-partite second year module. It will be the first time that I have delivered this class, and I have no idea how it will go. I feel very insecure about what will happen. I have a fear that the module that I have developed is not challenging enough. Or more precisely, not intellectual enough. I fear that the students will outgun me. They will know more and expect more than I can provide in this class.

I know that this will be a relatively small cohort. And I feel that this room will be intimate enough for the group size. No one will be lost in this space (except me, perhaps). There is room to spread out (using the banks of seats to the sides) and there is space to come together and feel a sense of wholeness. I think this space will work. But I don't think it will be popular. No one likes going to the basement for a class at the end of the day. No one likes sitting in murky lighting under a low ceiling. Hopefully I can distract us all. But I think the room will work.



Data Image 3: Teaching Room, Huxley 134

I head back to my office to chat with my teaching fellow about that troublesome first year module and the too-small-too-restrictive room. What will we do? How will we find a solution?

I recap the spaces in my mind. I see myself walking in, I see the classes. I begin to see everything to come. I will be teaching, as I usually do. But one extra class this year, due to the delayed appointment of my second teaching fellow – which I hope I will be able to confirm in the morning, but which I also know will mean coping without the new team member until December. So I definitely will be teaching their classes this year. I wouldn't consider switching out a class's teacher mid-way through the year. So it will be me for the duration.
But on top of teaching, I will be researching. I will be observing, recording field notes for later analysis. I will be working across different roles simultaneously. Is this possible?

Well, I've done it before. Albeit just for one module, for eight weeks. Whereas this will be across three modules for eight weeks and then across two of them for a further twelve weeks. That's 48 classes. 96 hours. Three sets of field notes per week. Plus further notes in between. But I've done it before. I know this is something I can do. I do know this. But can I? Am I just kidding myself? Was I rigorous enough before? Did I teach well enough? Observe well enough? Did I impact the student experience with my tomfoolery? That is a strange word. I will not use it again. But did I?

I've chosen my notebooks. I've chosen my field notes pen. This might seem like a joke, but these things are important to me. I can imagine making notes with these notebooks and these pens (yes, I anticipate filling notebooks plural and using up pens plural, so I have drawer full). I know how I will write. I know what it will mean. I know what data will be produced in the service of the learning. I know when and how I will be asking the students to reflect on their learning, their progress, what things mean to them. I've made some plans to capture things on paper that perhaps I would usually let pass as conversation (not for a good reason, but because I never got round to designing a paper-based tool

> in the previous years). I am prepared. Prepared to teach, and prepared to observe.

So, now you've had the same sneak peek as me before teaching begins. These are the physical spaces where the classes will happen, where the students and I will come together. These are the classrooms. But what have I got planned? What will actually happen here?

My teaching doesn't occur chronologically – by which I mean that I don't see my first year students early in the week, and then my second year students and then my third year students. And I didn't visit the teaching rooms chronologically either. But to save confusion – and believe me, this does cause confusion to teaching staff, classroom participants and administrators, all year long, I'm going to describe the modules in year order. Partly because I like the simple fact that the numbers go upwards, and partly because these curricula are designed to spiral from each other. There is a programme-level coherence that allows complexity to develop – in terms of the material included and the skills required to work with that material across the years. And so the curricula make more sense this way.

'The World Today'

In SAFB G34, the steeply raked, narrow lecture theatre with inaccessible and fixed seating, I will be meeting my large, excitable first year group. New to the university, the students are given a few weeks to settle in before our first class together. During this time, they have been bombarded with opportunities and challenges – they've signed up to everything in Freshers' Fair, they've moved to a new country, a new city or at least for most of our students to new accommodation. By the time I meet them in the third week of their first term, they already have a strongly tribal, disciplinary identity (Hauke, 2016) and I feel that one of my main tasks with these excitable, tired, probably-not-eaten-a-square-meal-or-had-a-good-night's-sleep-yet students is to remind them of who they are. The expertise that they have as individuals with varied and useful life experiences, the strength that comes from their diversity as well as from their common interests. Their ability to make informed choices, to understand and come to know things for and by themselves. A lot of their university experience will be about accumulating vast libraries of facts within

their disciplines, but they mustn't become passive learners. They must retain responsibility for their learning – know when to deploy strategic passive learning, and when to challenge, question, struggle and create knowledge for themselves. And finally, I want to remind them that they are not in competition with each other in their learning (although sadly this might be true in their grading). They are, in fact, each other's greatest resource (hooks, 1994). Learning is intellectual, but it is also social, emotional, bodily, practical and physical (Merleau-Ponty, 1962; van Manen, 1991; Ellsworth, 1997; Probyn, 2004).

We will be meeting from 4-6pm on Tuesday afternoons for these three first year, 8 week, modules, all prefixed The World Today (See Appendix 2 for the full module specifications). Although these are separate modules, in practice the three modules are delivered alongside each other in the same room, and are designed to intersect, interact and be fully integrated. For this reason, from a delivery perspective, I consider this to be one single tri-partite module.

So the aim of this module is for students to experience working in different types of teams, and to overcome difficulty in those teams. The students need to define their own idea of a global challenge, and select something to research and document. They need to work in cross-cutting teams with students from the other streams, such that the students have something individual to contribute. Finally the students present this work and move on to think about the future – putting all the skills that they have developed to use in one final, creative task.

'A Smart Life', 'Sustainable Me' and 'Building Happiness'

And in Huxley 134, the small, squat and dimly lit lecture theatre, we will be meeting on Monday afternoons from 4-6pm for our second year, 20 week, modules. This will be a much smaller group – often our second year classes have more life science students than the other disciplines and most of these students will be taking the module for degree credit. These students often present as highly pressured, they struggle to keep up with their studies and seem to feel weighed down by their progress or, as they see it, their lack of adequate progress within their core degree. I often find second year students quite difficult to get along with – they seem defensive and uncommitted to our time together. However, what I also find is that if

you go the extra mile and really dig in with these students, they can, with a lot of support, achieve some really spectacular work.

As with our tri-partite first year modules, these modules (see Appendix 2 for the full module specifications) are also delivered in a 'learning cluster'. The modules are designed to follow the same processes and workstreams, with the students focussing on conceptually linked but distinct ideas (smart technology, sustainability and happiness) – such that the students could interact and inspire each other across the modular streams. Initially the students work to develop their own concepts and theories of happiness, sustainability or smart living, and then apply these ideas in self-designed projects that aim to create a change in their experience of their chosen concept.

This will be the first time that I have delivered these brand new modules, and I have deliberately left quite a lot of 'space' in the planned curriculum, so that there are as many opportunities as possible to engage these students fully and support them through what can be a challenging year.

'Lessons From History'

And finally, in the flexible but uncomfortable and soulless seminar room SAFB 122, we will be meeting on Thursday afternoons from 4-6pm for our final year module. Our programme groups third and fourth year undergraduates into one cohort, so this third year, 20 week, module actually caters for third and fourth year undergraduate students, intercalating students and international exchange students. Some of the students will be final year, with the pressures that entails, and others will be penultimate year or even taking a year that doesn't count towards their degree in the case of some of our exchange students. Although on paper it might appear that this cohort of students are under the most pressure in terms of their academic study, they have survived their second year and developed greater resilience. They also have the momentum that comes from approaching the end of their studies, and this seems to bring extra energy to these students.

On this module (see Appendix 2 for the full module specification), the curriculum is organised to follow a modified team-based learning structure (Michaelsen, Bauman-Knight and Fink, 2003; Hauke, 2019). The students form teams in the initial week

(usually seven students per team) and work in those teams until the end of the module. Whatever happens. Whether the team are best friends and work well together or whether the team are sworn enemies and struggle to sit together. A lot of time and focus is given to nurturing and strategizing with the teams to ensure that every single student has a positive experience – even if that experience entails managing a very difficult situation and gaining the skills and confidence to do that.

The students are exploring whether, as a society, we can learn from history and applying that learning to thinking about protecting our futures. They are responsible for their own learning and development, but receive (fairly intense) feedback at every single step and sub-step of the module. The focus is on team working, communication (including writing) and negotiation. And all while supposedly studying history.

The dovetailing triptych

Now that we've established a little more detail about what is coming, in terms of the teaching and learning that will be undertaken, we'd better turn our attention back to the research aspect of this story again. I'm not sure if I've already mentioned this, but authenticity is a pretty important idea to me. It runs through everything that I do with students, in the classroom, with my teaching team and in my job as a whole. And so it is really important to the research – both in terms of the sensibility and philosophical approach of the research, but also in terms of the practical and logistical aspects of it.

So I want to find out what is happening in the classroom with regards to the teaching and learning experience (and how this is shaped by the curriculum design) with regards to authenticity. But I want to find this out authentically. What are my options?

Well I could give out questionnaires at the end of every class to find out what the students are thinking about their learning experience. But in my mind, this would not be an authentic part of the teaching and learning experience, and therefore has no place in my classroom. I also think that the data would not be authentic to the

experience as it would be directed and 'formed' by the students' experience of reading and responding to the questionnaire.

I could hold focus groups or conduct interviews at the end of the module. Now this would not interfere with the teaching and learning experience, but it would be temporally inauthentic. The students might feel quite differently about their first week experience in the context of having completed the whole module than they would have done had they considered the experience in that first week. And again, the data collected here would be shaped and directed by the questions asked, and the comments of other participants in a focus group. In effect, this would 'create' a new version of the experience from which the students would draw their responses (Jones, 2004).

Instead, I have opted to collect ethnographic and autoethnographic observational data of the classes as they progress throughout the year. I will be the researcher, I will be making the observations and I will be analysing the data at the end. But I will also be the teacher. I will be an active participant in the encounter that I will be observing. Now, I hope, that as you're reading this, your ethical alarm bells are crazily ringing their little clappers off. That's perfect, they should be. There are a lot of issues that we need to discuss ethically speaking. But before we get into that whole tricky area, I want to clarify how this endeavour is able to proceed from a practical stand point. How is it even possible for the teacher to be able to teach and observe at the same time? What types of data might be collected? Just how will it work?

Well to start to understand the practicalities of the work that underpin this story, we need to return to the idea that I live my life (my working life at least) in triplicate – concerned with three complementary and distinct activities – design, teaching and research. Because I live and breathe these three elements contemporaneously, day in and day out, they have naturally become mutually enhancing and supportive. The design forms and shapes the teaching and learning experience, and it supports the research by making this experience as explicit as possible. The teaching and learning experience is the focus of the research and so is enhanced by the increased attention afforded by the addition of the researcher's eye to that of the teacher. And of course, the research feeds back into refining the design and the

delivery of sessions, again improving the teaching and learning experience. It's basically a win-win situation. Or is it?

Of course, I might become so consumed with creating the 'perfect' design, that I neglect the student experience or the potential for learning, and instead focus too much on making the design sound novel, exciting or otherwise noteworthy. I might become so consumed with 'supporting' the student experience, that I fail to utilise the design to its best advantage, instead cutting corners and trying to win the students over by creating an 'easy' or otherwise 'enjoyable' experience for them. Equally, this might distract me from my research, meaning that I have to look back, straining my memory to try to 'find' data to draw from. And finally, I might be so consumed with the research that, perhaps without even realising it, I subjugate the design and the teaching and learning experience to the service of the research. Think only of what data I need and how I can collect it, perhaps even manipulating the experience to yield this research gold.

Now this might sound a little flippant, but it is really important that I maintain some criticality and self-reflection around these issues. It would be very easy to be seduced by one of my three 'masters', and neglect to keep this happy and favourable balance between my activities. Luckily for me, the design and teaching parts of my role preceded the research element and so a lot of the design features that I implemented were chosen solely for their pedagogical value. When I later came to begin formal research of my teaching and learning practice, I was guided towards the research approach I have chosen by the very fact that these same features that represent excellent pedagogical value for my students, also present unique and valuable opportunities to collect data. And now, as I refine my designs even further and develop my pedagogical practice, I do this alongside this additional awareness of the research value of different design features. This process has developed organically for me, without any particular pressures or drivers, except the desire and curiosity to find out more about what I'm doing.

And I hope that by exploring one example in more detail, I can show that I do have this important degree of self-awareness and that I do plan my activities carefully to maintain this balance across the triptych of my work.

The class in the mirror

> *"Teaching, like any truly human activity, emerges from one's inwardness, for better or worse. As I teach, I project the condition of my soul onto my students, my subject and our way of being together. The entanglements I experience in the classroom are often no more or less than the convolutions of my inner life. Viewed from this angle, teaching holds a mirror to the soul. If I am willing to look in that mirror, and not run from what I see, I have a chance to gain self-knowledge – and knowing myself is as crucial to good teaching as knowing my students and my subject. In fact, knowing my students and my subject, depends heavily on self-knowledge. When I do not know myself, I cannot know who my students are. I will see them through a glass darkly, in the shadows of my unexamined life – and when I cannot see them clearly, I cannot teach them well."*
> *(Palmer, 1997: p 15)*

So let's consider the design of a typical module. In every module that I design, I try to create as many opportunities as possible for the teacher to get to know the students. The more the teacher knows about the students as individuals and as a group, the more dynamic the delivery of the curriculum can be. If you know how the students are approaching tasks, where their strengths lie and where they need more support, you can design sequential activities to best suit their particular need and to provide the most targeted and fine-tuned challenge for their learning and development.

At the start of a new module, I know very little about the students. I learn their names, I gather little facts – perhaps they come to me at the start of the first session to share a concern or anticipation. But to systematically get to know the students, I need to create opportunities to gather more information. And so each activity I design as part of the curriculum has a learning value for the students and for me as the teacher. Each activity acts like a mirror in the room – the 'doing' of the activity generates insights. There is the overall impact on the room – what happens to the energy levels, the mood? How much do the students interact? What are they asking each other? How easy is their collaboration? And then there is the impact on the

individuals. What do they ask me? What part of the activity attracts their concerns and passions? How do they react? And then there is still further information to be gathered. How does one student react to the reaction of another student? There is a domino effect in action, if only it can be accessed.

Now some of these pieces of information are observed by the teacher by their own perception in the moment. Some is reflected to the teacher via student to student interaction or is refracted through a previous or future activity. Some of the information is returned on paper as the precipitate of the activity, the submitted product. Some is returned via student reflection or feedback dialogue. And these different pieces of information can be amassed and used to create a living, breathing semblance of what is happening in the class in order to further direct dynamic design and delivery. And these different pieces of information (already amassed for the purposes of observation-driven teaching) can further be interrogated for research purposes. But getting back to the pedagogical design and those mirrors for a moment.

And so my 'classroom' looks a little like this in my head.

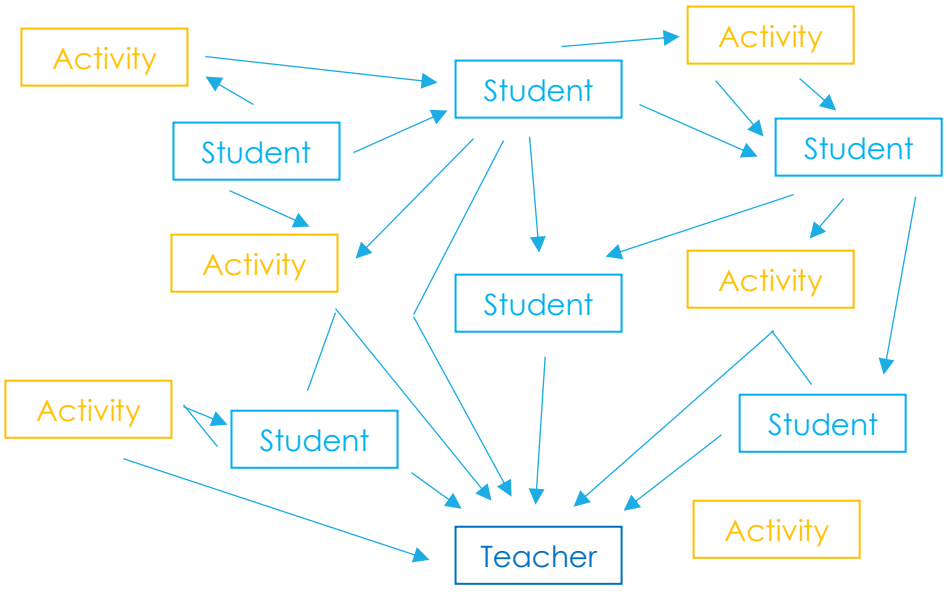


Figure 11: Activity-mirror diagram

Each mirror directs, reflects or refracts information towards the teacher. Directly from a single student, via one or several students, or as a convergence from the whole class. But of course, the mirrors also work the other way around. The mirrors reflect something about the teacher to the students. The students get to know the teacher by the activities that the teacher requires the students to interact with. And this information is also reflected back to the teacher. And is also useful. In fact, I think that this process is so powerful, that I explicitly and actively engage the students in this teaching and learning use of observation. We include an observation policy in our student handbook (see Appendix 3) that details the reasons that we as teachers are observing the students, and also the learning value of the students acting as observers themselves.

For further detail, Appendix 4 documents some key design features from a single module, The World Today, mapped to both their pedagogical value and their research utility. I hope that you can see that the important and valuable sources of data are not created cynically to further the research, but actually form a core part of the learning experience and contribute a vital pedagogical function with the module as a whole.

But when you play it backwards…

In research terms, this is rather reminiscent of Dan Rose's (1990) concept of reversal – whereby the researcher engaged in observation can learn as much from observing the participant's observation of the researcher as from observing the participant themselves.

Let's start by taking a step back to think about how observational research is often conceptualised. The very language of observational research implies a very simplistic model with defined roles. There is the observer and the observed, the researcher and the participant. A diagram of this interaction at its most simple might look as follows.

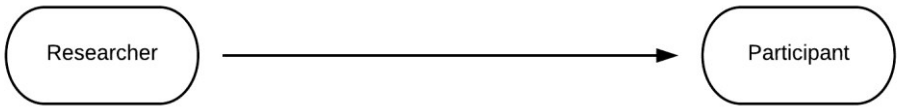


Figure 12: Simplistic view of observational interaction (Adapted from Hauke, 2021: p85)

There are two clear roles with a single direction of observation. Conversely to this direction of observation, all data flows from the participant to the researcher.

Most would agree that this model is too simplistic to describe the processes involved in observational research in practice. At the very least, you would hope that the researcher would work reflexively (Etherington, 2004), as in the diagram below.

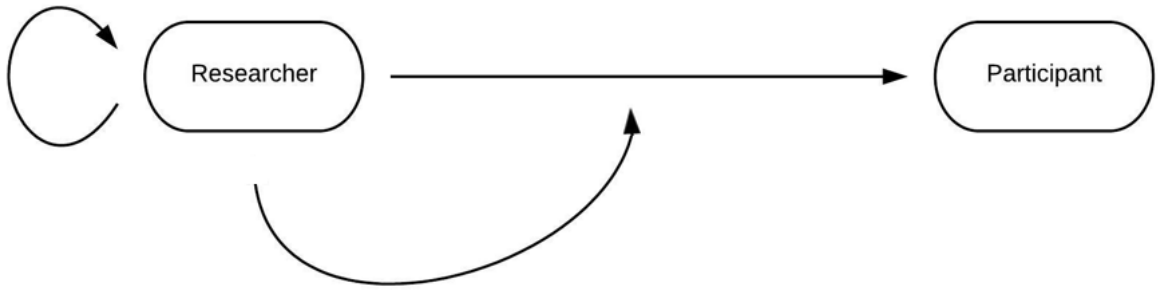


Figure 13: View of observation interaction including researcher reflexivity (Adapted from Hauke, 2021: p86)

Here we see that as well as the researcher observing the participant, they are also 'observing' themselves. Additionally, they are observing the process of observing the participant. There are now three distinct flows of observation and data, which will be integrated by the researcher.

As yet though, the participant is seen as having no direct input to the process of observation. This might seem ideal – the participant is not involved in the observation and is therefore not acting in any way differently to when they are not being observed and therefore the observation might be considered to be somehow more genuine. However, there are ways that the participant can directly and actively inform the observation without being influenced by the process of observation.

The idea of 'reversal' (Rose, 1990) describes how the participant may provide a critique of the researcher that further informs the researcher's understanding of the participant. In other words, understanding how the participant views you as the researcher can tell you even more about the participant than simply your own observation. This critique might be offered in any number of forms, but the researcher must look out for this and use it to further enrich their own understanding – "hear, take up, discover, and legitimize the voices of other cultures against, with or through one's own" (Rose, 1990: p38).

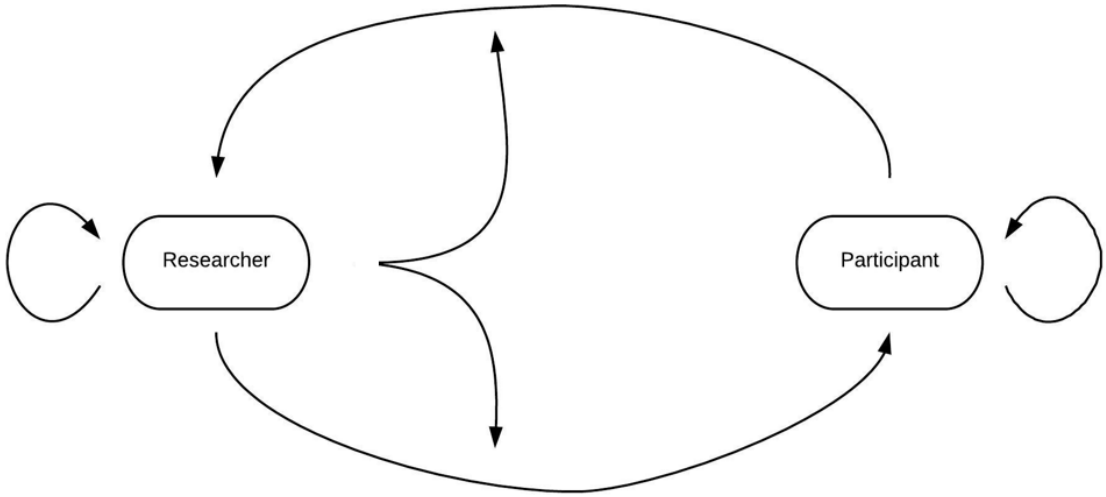


Figure 14: View of observational interaction with reflexivity and reversal (Adapted from Hauke, 2021: p86)

This now adds a pleasing level of complexity to our model of observation. The researcher observes the participant, but we are now also aware of the participant 'observing' or having feelings about the researcher. This additionally reveals to the researcher something about how the participant views themselves. And as this is reflexive work, the researcher is also observing the process of observation (now passing in both directions from researcher to participant and from participant to researcher) as well as reflecting on themselves as the researcher.

This particular piece of research however, has another level of complexity that must be worked into this model. The observation in this context is participant observation.

In my work as participant researcher, I will be balancing the roles of participant in the observation (teacher) and researcher.

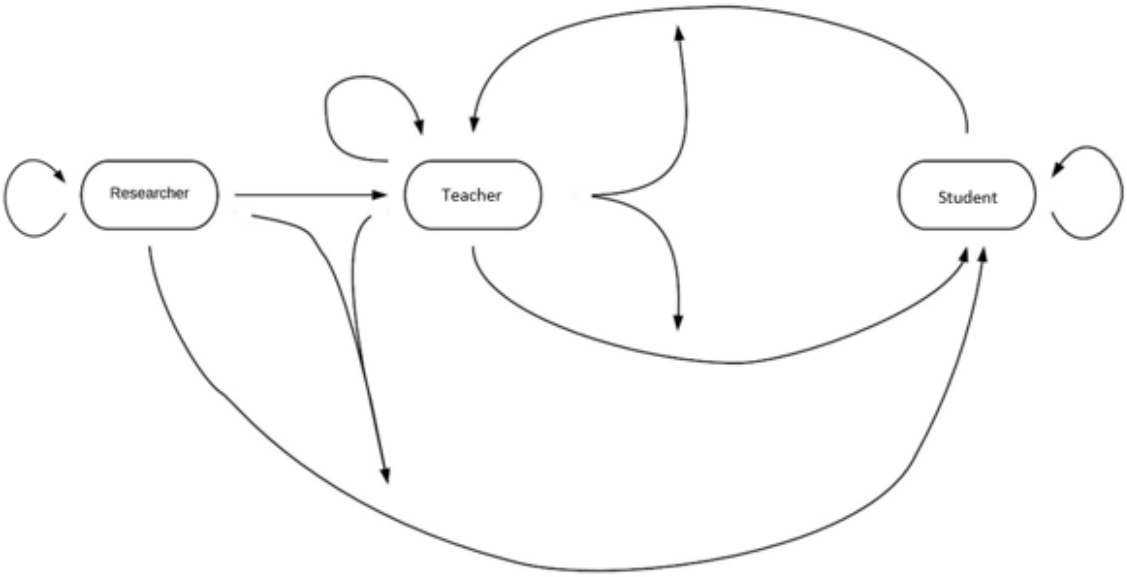


Figure 15: View of observational interaction with reflexivity, reversal and the observer as participant researcher (embodying both a participant and researcher role within the scenario) (Adapted from Hauke, 2021: p87)

As the participant observer (teacher) I will be observing the participant (students), their observation of me (teacher) and all that this tells me (as in the model above). Additionally, there will be some interplay and reflexive transfer between my distinct roles as researcher and participant (teacher). As a teacher, I will be aware of my concerns as a researcher. As a researcher I will be observing myself as teacher, and I will be directly observing the students (bypassing my teacher role). As both teacher and researcher, I will reflect on these additional flows of observation.

It's not what you see, but what you make of what you see

> *"We should take some of the air out of this word 'method', a favourite of the natural sciences, and realize that truth is wider and deeper than method. Method can be very wooden and it can even be a positive obstacle to finding the truth"*
> *(Caputo, 2018: p8)*

As understanding experience is clearly key to this piece of research, we now need to move on to thinking about how experience can be accessed and understood from a research perspective.

Much research in the humanities draws from a hermeneutic perspective, relying on interpretation to understand the worlds and lives of people. In fact, post-modern philosophy asserts that the only way we can know anything about the world at all, is through a veil of interpretation. And this even holds true in the realm of 'hard' science, where previously measurement rather than interpretation was felt to be key (Caputo, 2018).

Now I've already said that this research and this story is not about uncovering some elusive yet concrete truth. Instead, it is about uncovering potential understandings, posing questions about the experiences that might emerge in my classroom and considering what this might mean about authenticity. But even at the level of potentials and possibles, how can we know if what I'm writing about relates to anything meaningful in the real world? It's not about truth, but it has to be about something, surely? Well hermeneutics asserts that there is no concept of pure objectivity or pure fact. There is no necessity to demonstrate correspondence with some imagined objective reality. Rather there is the "distinction between good interpretations and bad ones" (Caputo, 2018: p9). So how do we get at good interpretations? How do we bring together method and opportunity, analysis and reflection to move forward in our understanding of a given phenomenon?

Traditionally in academic research, and particularly in doctoral research, it is important for researchers to state their orientation. And by that I mean their

philosophical stance, their paradigm of operation, approach, theoretical and/or conceptual framework, their mode of data collection and then analysis. And this then alerts the reader to the boundaries of thinking and working that informed that research. However, this work is slightly difficult to pin down in such a rigid fashion. And not because this work is somehow special, or because I'm being lazy or undisciplined in my approach to the work. But rather because I am not interested in a bounded reality, only accessed via the vagaries of one disciplinary lens, or one methodological approach. I want to begin to access that rather elusive wholeness of experience that speaks of authenticity. I cannot begin to answer the questions I'm asking unless I am willing to cross a few boundaries, be imaginative and – some might think disrespectful – with my understanding of and use of method and rigour.

There are several reasons for this. Firstly, in order to be authentic to the phenomenon under study, it has been necessary to draw from a number of different approaches and methodologies to adequately and authentically capture data and then to interpret and analyse that data. The research method needed to dovetail seamlessly with the teaching and learning process, and furthermore it needed to have the same sensibility. There would be little point pursuing a hard-won sense of authenticity in the classroom, but then capturing that experience as data in a way that did not serve that authenticity. A lot of research is about being distinct - working within boundaries to create disciplinary specificity, rigour and clarity. However, as we've already discussed in 'Before the Beginning', the world and phenomena within the world are not neatly packaged within tight boundaries. And just as "the fiction of cultures as discrete, object-like phenomena occupying discrete spaces becomes implausible for those who inhabit borderlands" (Gupta and Ferguson, 1992: p7), so too do the disciplines and methods that try to define them. This research therefore honours that spirit. And crosses disciplinary and methodological boundaries, where necessary, to be distinctive, rather than distinct.

This is not being undertaken lightly, this no-mans-land of authenticity is challenging to inhabit.

> "borders are set up to define places that are safe and unsafe, to distinguish us from them. A border is a dividing line, a narrow strip along a steep edge. A borderland is a vague and undetermined place created by the emotional residue of an unnatural boundary […] The prohibited and forbidden are its inhabitants." (Anzaldúa, 2012: p25)

This small and hard won territory is contested and detested. There is the risk of alienating those on firmer ground, of not being taken seriously. And there is the risk of falling off this tight rope path between the known and the boundaried, being drawn back into conformity and normativity.

Secondly, I am coming to this research as a researcher-practitioner. I am not an outsider to the phenomenon under study, and I come with extensive and detailed experience of this particular situation. For many researchers in academia, the focus of research may be a new area of study – either to the individual or to knowledge in general. After all, that is how 'new' knowledge is produced. But I am looking to unearth depth and detail in a situation which I myself have created and have been working with for a number of years. Now in many ways, being a researcher-practitioner makes me an outsider to the traditional research and academic community. I am not employed within a research discipline, with defined and prescribed methodologies for exploring that discipline. Even my teaching is interdisciplinary. I am an outsider in my institutional context of learning and teaching, I am not part of an academic research community, and I am not looking to pursue a career as a prima facie researcher. I am a practitioner first and foremost. A teacher. And as a teacher, in my own context, my focus is not to impart the knowledge of my discipline, it is to facilitate students to approach their learning in new and challenging ways (and, yes, you guessed it, authentically).

So this is really a rather long winded way of saying that the research in this case is secondary to the phenomenon. My engagement with the phenomenon under study has shaped the research. The detail that I hold and already possess about the

phenomenon under study, has necessitated the same detail and intricacy in the method. If I were coming to the phenomenon with a different type of experience, this would be the other way around. I would have a research focus that would shape my engagement with the phenomenon at hand.

And finally, I think that this research design has a lot to do with myself as an individual. I have a strong and felt sense of what I want to know, what I want to find out and how that might be achieved. I have not wanted to compromise on my vision of this, and have tried to find ways to accept, reveal and honour areas of this research that are problematic, rather than exclude those difficulties from the process. In a way, as I earlier discussed the development of my teaching as being driven heuristically, so has been my development of this research. I have been stubborn, and I have worked with square pegs and round holes. But what I have drawn together, I think, brings the best and most useful elements from a number of approaches.

Is this is, or is this ain't (anyone's baby)

I am broadly interested in the study of a group of people – and how their presence and interactions can provide clues about the experience they are having in a particular setting. Now anthropology as a discipline seeks to develop a "critical understanding of human being and knowing in the one world we all inhabit" (Ingold, 2011: p229), and would seem an appropriate starting point. More specifically, social or cultural anthropology seeks to find this out from the study of other people (as opposed to artefacts or archaeological ruins).

Clearly, given the context of this study, there is also a disciplinary thread from Education, and specifically Higher Education. I am not interested in whether authenticity exists in my classroom for the sake of it, but in relation to the project of education. Authenticity in itself can be viewed within the disciplines of Anthropology or Education, but it is very hard to unpack as an idea without drawing from Philosophy, and in this case specifically from Existentialist Philosophy (as you will have already seen in Before The Beginning). And without giving too much away about what is to come, I think there might be some guest appearances from Psychology and Geography along the way.

The ABC of ethnography

Now that we've thought a bit about the context in which I will be researching, and in which my method will be operating, it's time to get a bit more specific and technical about the method itself.

Ethnography as a research method is understood differently in different contexts (Humphreys and Watson, 2009), but generally speaking attempts to describe the lives of individuals belonging to a specific culture. Historically, ethnography was used to investigate the most culturally 'other' to the Western researcher – those living in remote tribes. Initially, the research was conducted by 'armchair' researchers, who collated and interpreted the observations made by missionaries (Van Maanan, 2011) from the comfort of their own (Western) homes. Later, researchers ventured into the field themselves, but watched the community under study from the safety of their own comfortable accommodation - so called 'verandah' anthropologists (Kuper, 1977). Later still, anthropologists undertaking ethnography would become embedded within the community that they were observing – asking questions, participating in rituals and daily life as participant observers (Watson, 2008).

Moving away from these origins of the method, that crossed ethical and moral boundaries in their characterisation of those from non-Western cultures, ethnography became a tool for studying local cultures – such as the work of the Chicago school looking at marginalised populations within the locale of the researcher (Deegan, 2001). Further still, the method is often now used to study our own cultures, or those with which we closely interact in highly embedded participant ethnography (Hauke, 2016; Hauke, 2021) and autoethnography (Ellis, 2004).

Ethnography as a method is rather unusual in the way that data is collected, constituted and analysed. The ethnography itself is not the act of data collection (the part that would be considered 'method' in a scientific experiment). Rather, the ethnography is the end-product, the written account (Humphreys and Watson, 2009). The data might include written field notes of observations, recordings of conversations or interviews, photographs, documents and other artefacts

generated in the field. This data is used by the researcher to create the 'ethnography', which typically represents some area of focus – a particular aspect of life or phenomenon that was observed and must be understood within the "cultural whole" of the world of that observation (Baszanger and Dodier, 2004: p13). This extended thesis therefore represents a rare opportunity to honour this value of ethnography, affording me the space and wordcount to try to represent my work within the world from which it originates.

The writing of the ethnography, whilst a subjective process that may be highly personal to the researcher must stand up to some level of interrogation in terms of the validity of what is written. Composed of thick description (Geertz, 1973; Ryle, 2009) the writing must convey the particulars of the phenomena under observation and also offer some form of analysis. But how can there be any degree of rigour in something so subjective? It is the researcher who decides what to include, what to focus on, and what to make of it.

Now I've already made my feelings on the notion of 'truth' with respect to this work quite clear. I am not trying to unearth some unequivocal truth about what is happening in my classroom, and neither am I trying to present this writing as a representation of truth. It is very much my own construction. But that doesn't undermine the authority or value of this writing as a form of research. "Ethnographic authority does not come from "seeing", rather it comes from a gradual process of understanding (and misunderstanding) in the field and beyond" (Hastrup, 1994: p5) By making this process of exploration, of understanding and misunderstanding transparent in the writing, hopefully the source of authority in this work is also revealed.

Joas (1993) suggests that an ethnographic account represents a form of truth, philosophically speaking, if it equips the reader to be able to cope if they were suddenly transported into the world being described. If the ethnography were the only guide to surviving and understanding this world, would they be able to get by? In order to create a compelling account that transports the reader into the world of the ethnography, and sometimes in order to protect anonymity or to preserve trust within the observation, some elements of fact may be lost to varying levels of

fictionalisation and novelisation. More specifically, if the documentation of how things happened and how things work is faithful, this may be considered the essential truth of ethnography, rather than the details of fact (Humphreys and Watson, 2009). Other tests of validity include correspondence – identifying how much the description corresponds to the events that were actually observed (Humphreys and Watson, 2009). Further, Humphreys and Watson (2009) describe a typology of ethnographic writing that reflects the need for some accounts to move further from the strict facts of the observation than others. Plain ethnography (2009: p43) provides a step by step account of the facts of the action – most similar to a witness statement. Enhanced ethnography (2009: p43) includes novelistic techniques, such as the inclusion of scene setting, dialogue, the presence of the author as a part of the action, emotion, inferred context and reference to the differing perspectives of the participants (Hauke 2016). Semi-fictionalised ethnography (Humphreys and Watson, 2009: p43) allows the restructuring of multiple events, or different aspects of many events into a single narrative description. Finally, there is the fictionalised ethnography (Humphreys and Watson, 2009: p43) that creates a representative account from multiple previous real life experiences of the author, but in which the description does not correspond to an actual event.

This work represents an enhanced ethnography, in that I as the author am using a variety of techniques to create as rich and engaging a representation of the real world experiences of the observation as possible. Everything that is described is a faithful representation of events that really occurred. The only element of fictionalisation is the use of pseudonyms to protect the identities of individual students.

Now you see it…

So you should have gathered by now, that my data collection method is observation of everyday activity – that is activity that would have happened whether or not I was observing it, as opposed to activity that was staged for the purposes of testing or research in itself. And specifically within the activity that is being observed, I am looking at communication, actions and interactions, approaches and processes, reactions and reflections, and equally importantly (I think), the inverses. Any absences in communication, action and reaction. I believe that by paying conscious and deliberate attention to all these phenomena, I will be

able to build an idea of the 'culture' of my classroom, and hopefully, the way this 'culture' intersects with (my) ideas of authenticity.

Culture in itself is a hugely ephemeral and amorphous term. Many have struggled to define or, rather, confine the term, but there are a couple of writers that I think help us to narrow things down to a manageable range of ideas. Taking a whole chapter to build a working definition, Clyde Kluckhohn's (1949) key ideas can be summarised in this list of what constitutes culture:

1. "the total way of life of a people" (p22)
2. "the social legacy the individual acquires from his group" (p22)
3. "a way of thinking, feeling, and believing" (p25)
4. "an abstraction from behaviour" (p25)
5. "a theory […] about the way in which a group of people in fact behaves" (p25)
6. "a storehouse of pooled learning" (p26)
7. "standardised orientations towards the deeper problems" (p26)
8. "learned behaviour" (p27)
9. "[adherence] to a system of related designs for carrying out all the acts of living" (27)
10. "a set of techniques for adjusting both to the external environment and to other men" (p27)
11. "a precipitate of history" (p28)

In reflecting on the limiting, overly specific and yet paradoxically expansive nature of these ideas, Geertz (1973) comments that any observation that points to some notion of 'culture' is not important in and of itself. The materiality, physicality, intellectuality or other-ality of the 'thing' that is seen is almost irrelevant. The importance is in the symbolic understanding of that thing. In what it means, what it communicates and what it achieves.

My ideas about the 'culture' that I'm hoping to interrogate clearly deviate slightly from the descriptions above. But for a really good reason. If I were to believe that the culture that is accessible and observable to me in the classroom would represent 'the total way of life of a people', then I would be very wrong. As a quick

example, I looked at the demographics of my student body for this academic year and found that the students in my classes come from a total of 37 different countries around the world. So imagine the sheer volume of cultural heritage that my students are bringing to the classroom. And this is in fact, an oversimplification. I used simple recorded demographic data to determine this figure. However, by simply cross referencing this institutional data with some of my students' self-declared nationalities and backgrounds, I know that the story is far more complex. For example, a student registered as being Danish, self-reports his nationality as Ethiopian. A student registered as British, describes herself as being Antiguan. And so on. Declared nationality is clearly not representative of the geographical, cultural and ethnic heritages of my students. So our classroom includes many, many cultures.

But what I am specifically interested in, is some form of educational culture – that is the culture that develops, operates and belongs in the classroom. But even that is hugely complex. I cannot speak for the prior educational experiences of my students, but I can tell you that their core educational experience at Imperial College represents micro-cultures of over 30 different departments, disciplines and degree programmes.

So to be clear, I want to be very specific – I am looking at the culture of the educational encounter(s) that occur in my own classroom. So what might have looked rather like self indulgent, self centred, self important introspection, is actually an important part of creating realistic and necessary boundaries for this study. I might want to reflect on the wider cultural experiences that are present within our interactions, but what I am observing in this work is the culture that we create together, between us and for us.

But isn't ethnography about the researcher looking at a different culture? I've already described myself as richly and uniquely experienced within the context that I am investigating. I designed the teaching under observation. I have been working on this learning experience with students for nine years. How can I develop genuine and novel insights about these encounters with this weight of historical and experiential baggage?

I would argue that I am both native to, and a stranger to my students. And to my teaching. I have been a science student (I studied medicine as an undergraduate at St George's Hospital Medical School) – as are my students. I struggled with moving from an atomistic and uncritical conceptualisation of learning to a more holistic and self-directed vision. As you will have read in the prologue, I was forced into this by a freak accident. I don't want my students to need to encounter random trauma to make this transition. I would like to help facilitate it. I have also been (and am) a student at Imperial College. I have studied for an MSc in Science Communication, an MEd in University Learning and Teaching, and now a PhD in Educational Development Research. And I am familiar with the intricacies of Imperial's institutional processes and the physicality of the campus as I have worked here for nine years. However, I have never been an undergraduate at Imperial College. I have never studied the wider range of degrees that my students are taking. I have not been an undergraduate at this time, in this place. I do not know what my students are encountering in their studies or in their lives. I am familiar and unfamiliar.

Likewise, as entrenched and embedded in my own teaching as I am, I have never before taught these students, in these classes, during this academic year, at this moment in my life, with this exact balance of experience and naivety. And if there is one thing that experience has taught me, it is that every moment is a new moment. Every student, every combination of students, every interaction of students with my design, is new. Every breath is the first breath.

But it is my experience and the very nature of my specific context that will enhance my observations, my analysis and my ability to communicate these ideas – "contextualisation goes beyond the unfolding situation; context is also determined by the experiential luggage of the participant-observer, and the way in which such learned disposition intersects with new experience" (Rudie, 1994: p28).

No researcher can ever claim to be completely ignorant of those they are investigating. There is no such thing as a completely objective gaze – "the knowledge we formulate about the "other" is bound to be refracted through the knowledge we have built to define ourselves" (Crick, 1982: p293). Being aware of

our own identity, our experience and our presuppositions positions us to use this awareness to our advantage. Mills (1959) reflects on this difficulty in social research – "you must learn to use your life experience in your intellectual work: continually examine and interpret it" (p196), and Becker (1971) helps contextualise this to educational research, describing "the tremendous effort of will and imagination to stop seeing only the things that are conventionally 'there' to be seen" (p10).

Returning to those ethical alarm bells…

Data Vignette 3: Are you experimenting on us?

Midway through second year undergraduate module Building Happiness/Sustainable Me/A Smart Life. The students are participating in a creativity workshop, and feeling somewhat sceptical about the value of using creativity to solve problems. Out of the blue, a spontaneous conversation begins.

> Monday 21st January
>
> Lucy: Are you experimenting on us?
>
> Me: You what now?
>
> Lucy: Are you experimenting on us? Is this just an experiment (indicating her lotus flower creativity exercise sheet)?
>
> Me: Um…
>
> Lucy: Are you experimenting on us and we're just your subjects?
>
> Me: Why do you ask?
>
> Smithson: It says on your web page that you are an educational researcher, so that means that your experiments are on students, right?

Lucy: And, this must be an experiment (indicating the lotus flower with a huge eye roll)

Generalised murmur of laughter

Me: Well, you're right that I do educational research. But I'm also a teacher and right now I'm teaching.

Lucy: But this must be an experiment…

Me: I don't do experiments on students. I develop new ways for us to work together, and I evaluate how well things go, so that I can improve things in the future. And so that I can learn from you more about what you need and what will help you the most.

Lucy: So, is this an experiment right now?

Me: I don't experiment on students. Usually, at the end of every module, I evaluate whether anything went particularly well, or could be improved. I think about whether it is interesting to reflect on anything further. And at that point, if I want to reflect on our experiences together in a research capacity, write about anything or create a research paper, I contact the students involved to ask their permission. Have I asked your permission for anything?

Lucy: No…

Me: Not yet (smiling), anyway. But you know in the student handbook, there is that whole section about observation – how I'm watching you, and you're watching me, and you're watching each other, and how we can all learn from each other if we pay attention to what each other wants and needs?

Lucy: Um…

Me: You did read the handbook, didn't you?

Smithson: I remember that bit… So you're always watching us?

Me: Always. But rather than watching, I would say I'm always trying to pay attention to what is happening. I want to know how you're getting on with all the different tasks that we're doing. And if I think you need a bit more help or practice at something, I'll make sure to build that into the next session. Or if I think you're just acing something, I don't need to waste your time making you practice it even more, and we can move on and do something more advanced. So in a way, I'm always collecting data by observing you. And usually that data is teaching data, and is just used to make the classes the best classes they can possibly be for you. But if, at the end of a module, I think – wow – that was some interesting stuff that just happened, I'll think about whether I want to use that module, use that teaching data, as the basis for a piece of research. And in that case, I'll contact you and ask your permission. And my research is retrospective, I use the data that I already have. So I don't need to do experiments…

Lucy: Have we been interesting enough then?

Me: For…

Lucy: For you to make us into research?

Me: Well, there's still time…? (laughter)

Smithson: So. (dramatic pause) You think about us a lot then?

Me: A LOT (rolling my eyes).

Smithson: Do you … dream about us?

Me: Actually, I do. I have some of my best ideas when I'm asleep. But I have to say, you're pretty tough on me in my dreams, you're all much nicer in real life.

Lucy: So this isn't an experiment then (still sounding dubious)?

Me: No, this is a valuable pedagogical exercise to help you develop your creative thinking skills. This is what you're going to need in two weeks' time when you start your project. Unless you don't want to be creative? And anyway, if this was an experiment, where's my control group?

Lucy: (Looking around) There … isn't one. (to Smithson) So it can't be an experiment can it? We're the only ones doing this module, there definitely isn't a control group. You're just weird then, making us do weird stuff and it's not an experiment.

Me: Yup, just weird. But cool stuff, don't you think?

Now clearly, this piece of research is not in any way about me 'experimenting' on my students. Many might argue that my teaching is 'experimental', but that is another matter. The teaching and learning experience that these students are a part of is not an experiment in and of itself. Whether or not I conduct this research, these classes will proceed in the same way.

I had imagined ethical dilemmas around power relationships between myself and the students – recognising and respecting that in the teaching and in the research. Around quandaries that might arise due to tensions between the teaching and the research – having to choose between a course of action that would honour the teaching (and therefore the students) or one that would honour the research. But I did not anticipate having this particular conversation with my students, that touches on an even more finely balanced issue of ethics – the covert nature of the observation.

This moment was and is rather heart-stopping for me. At the time of this conversation, and throughout the teaching and learning experience, the students do not know that research is simultaneously being undertaken. There is a very good reason why I made this choice and there are very good reasons why this choice was possible. The act of overt observation is intrusive. It is impactful. It changes the behaviour of the observed. Which in this case would be the students. I did not want the students to act self-consciously or differently than they otherwise would because they were aware that their actions and reactions were forming an academic piece of research. I did not want them to feel under scrutiny and I did not want to compromise their educational experience by causing them to second guess or potentially curtail their own experience in order to appear a certain way to the observer or even to avoid the researcher's gaze completely.

But what's that? Yes, you're right. The students are being observed as a part of the teaching and learning process. They must therefore already have that concern. And yes, while it is true that observation forms a key part of the teaching and learning endeavour, the students are aware that this observation is designed to enhance their learning. They know that by participating in the observation themselves, they will enhance their own experience. This is very different to knowing that their every action might be put under a very different type of microscope. And this level of teaching and learning observation is explicit. And consented. The students are advised that the module will proceed with this level of observation, it is discussed, written material is provided to allow the students to reflect on this further in their own time, and as the weeks progress, the students 'see' the observation in action, they participate in it and they benefit from it.

So the covert observation for research purposes can partly be justified in the sense that to reveal the research agenda might harm the students' experience and engagement with the teaching and learning endeavour and ultimately their wider educational experience. Partly it can be justified as the 'data' that forms the observational research data is the very same data that is already being collected as part of the learning and teaching process. And this data is consented for the purposes of learning and teaching, and therefore any impact of this collection is discussed and mitigated with the students during the modules.

The additional research use of the data collected is consented following the last moment of interaction of the modules - the return of final module marks to all students. The students are provided with written information about the research, offered the opportunity to ask questions anonymously via a third party (knowing that I am the researcher might have made them wary of asking me questions as we already have an established relationship as teacher and student) and offered the opportunity to withhold consent anonymously (again via a third party).

And so this heart stopping moment was painful and terrifying for me. I wondered if the covert research had been revealed. Had I slipped up somehow and tipped my hand? Had the students become aware of the dual nature of our interaction? Was I wrong to be conducting my research in this way? Should I come clean with the students or hold my nerve? What was the right course of action? Would I harm the students more by maintaining the divide between the research and the teaching or by revealing the ethnographer in action?

In the end, I held the line. At this moment in time, I was a teacher first and researcher second. The students were not yet consented for research purposes, and so at this moment, although I can't deny the presence of the researcher, the data being collected is for teaching and learning purposes. It doesn't become research data until after the students are consented.

And as it turned out, Lucy had been checking out my institutional web page that details my work as an educational researcher. To Lucy, research means

experiments. And who would believe that being asked to complete a lotus flower creativity exercise could be for a genuine educational purpose?

Looking inside the filing cabinet



Data Image 4: The filing cabinet in my office containing all the physical data for this research

As I have said, the data for this research is formed of field notes of my observations, classroom photographs (taken by myself and the students for pedagogical or social reasons), communications (emails and letters) and products of learning such as submitted drafts and assignments, feedback dialogues, learning reflections and peer review dialogues. I would consider all these to be examples of first order data – that is data that originates from the learning and teaching endeavour, and is generated purely for pedagogical reasons. There is then one piece of second order

data – this is data that originated from the teaching and learning experience, but was produced by myself and the students as a reflection on that experience for other purposes (specifically, a conference presentation). Finally, there is third order data, which is data that has been reconfigured, refined or constructed by me, the researcher, from the first or second order data in order to formulate, tell, illustrate, provoke and challenge as this story unfolds.

I want to mention a few details about some of this data – firstly the first order data. This includes five notebooks detailing 5712 student hours of observation (96 hours of teaching time), including auto-ethnographic and other-ethnographic field notes; 1478 emails and 16 letters (written by second year students to the examiner and submitted with their final projects), 60 classroom activities and associated images and products, 721 classroom photographs, 154 presentations, 23 wikis, 16 posters, 16 video diaries, 16 projects, 53 knowledge bases and short form pieces of writing and 46 essays; 224 learning reflections, 16 peer review dialogues and 74 feedback dialogues.

The second order data is a single filmed conversation between four students (two second year students and two third/fourth year students) that was created for a conference presentation. The students had expressed an interest in how the curriculum was a constant negotiation between themselves as students and me as the teacher, and wanted to see whether they could create a conference presentation about their experiences of co-production. As the conference date was during their exam period, we had the idea of filming them in conversation and then showing this film at the conference in lieu of a traditional in-person presentation. We filmed 70 minutes of their conversation, and then together edited this to an 11 minute film for the conference. The entire 70 minute transcript constitutes a second order piece of data as it was created by the students from their experiences of teaching and learning, but did not arise primarily out of the teaching and learning encounter.

Finally, there is the third order data – the text, the found poems and the images. We'll go into more detail about the process of creating the text of this story in the next section, but I just want to focus on the poems and images for a moment.

I didn't want to include quotes or excerpts from the second order transcript data in the same way as you will see that I am including first order material as I felt that a distinction should be maintained between authentic in-experience data, and data that has a different type of authenticity. I therefore used the transcript to create third order data in the form of found poems (Butler-Kisber, 2002; Richardson, 2002). These are created by beginning with an entire excerpt from the transcript, and gradually removing words to reveal an underlying sentiment or sentience of an experience of learning in these modules. I have presented these graphically, on a background formed of the entire transcript with the line breaks removed (forming a solid block of text). As the poem derives from a dialogue, and to retain the speakers' identities, the individual utterances of each student are aligned under their names at the top of each poem. This retains the dialogic aesthetic within the subtleties of their sentiment. As this transcript is a form of analysis in and of itself (it was the students' analyses of their own experiences), I didn't want to provide further commentary for these poems. I wanted them to stand as evocative moments within the narrative. A pause. A moment for you to puzzle, strive and find your own meaning in these poetic images.

The sepia and pink tinted images are derived from photographs taken by myself or the students as part of the learning and teaching experience. I have chosen not to include photographic material, as I have already mentioned, because it is not representative of experience. "The lived perspective, that which we actually perceive, is not a geometric or photographic one" (Merleau-Ponty, 1945 – republished 1993: p 65). I wanted to include a visual element that is derived directly from the experience that allows you to have a visual insight into the world of my classroom. However, I wanted images that left room for you to see. For you to imagine. For you to make sense. "Pictures are bound up with seeing, but not only with seeing; they are bound up also with thinking about what we see, and with the interest we take in what we see (and also in how we would like to be seen, and in how we would like to be seen *as seers*) (Noë, 2015: p 146).

Using images in ethnographic research can take two forms – realist or expressive (Edwards, 1997). The images are either objects to be analysed by the researcher

and presented as evidence to support a particular position or idea (realist) or the images may be presented as a coherent part of the narrative (expressive). To stand on their own merits, communicate their own stories and ambiguities. In this case, any surrounding textual description should be minimised – so as not to 'speak over' the image. "There's a difference between talking with images/stories, and talking about them" (Anzaldúa, 2015: p5) and I hope that by presenting the images as a part of the text, and not as requiring a text of their own, I am allowing them to 'speak' for themselves.

The images have been reconstituted as line drawings, with extraneous detail removed to simplify the images. Clearly, I have made the decision about how much detail is required to make sense of the image, and which details are not relevant to include. I have further added a layer of constructed meaning by introducing a pink tint to direct the attention and add clarity to the image. All the images have been produced in the same way. They represent something of the reality experienced by myself and the students, they represent something of my working process, my analysis and my thinking, and they represent something of you. Your interpretation. Your imagination. Your sense of this shared experience.

(S)p(l)ace

"It's hard to be brave," said Piglet, "when you're only a very small animal."

"It is because you are a very small animal that you will be useful in the adventure before us," said Rabbit.

Piglet was so excited at the idea of being useful that he forgot to be frightened.

Winnie The Pooh (Milne, 2016: p85)

Found Poem 3: The Modern Social Network

Garrett Daphne Smithson

what do you think you've learned
in a wider context?
team work
team work
it does make the dream work
but in a big way
you just have to work as a team
it was thrown up in the air
I had no idea
and I am not, usually, great with group work
I tend to butt heads with people
but we've all managed to be quite flexible
and it's gone really well
I love my group
yeah
I'm a big fan of our group
it's really good
[laughter]
This is the whole point of the course really
the subtext of it
is just pushing friends together
[laughter]
There's no real learning involved
It's just a modern social network

(Hopefully not) lost in translation

So you've had a look in my (literal and metaphorical) filing cabinet, you've seen the data spilling out the drawers, piled up on top, filling notebooks and hard drives. But what does it all mean? How do we go from sacks and sacks of individual lego bricks of data to a recognisable reconstruction of this world? To a story that can be told. That can challenge, question and provoke?

Polkinghorne (1988) describes five obstacles to investigating experience and finding meaning in human consciousness. Firstly, meaning is not tangible. It is not a natural object that can be picked up, measured, turned around and examined. Meaning is action, it is what is between and around objects in the world. It only appears as a "fleeting trace or indication; it appears as a wisp" (1988: p7). Secondly, as we have already discussed, we can only access our own realm of meaning and experience. And the actual process of sense-making is normally outside of our consciousness. We need to invert our focus and reframe our awareness in order to access the sense-making in and of itself. Next, we think and make meaning in language. Language can be rich, but it can also be reductive. Whilst we might use language in a context-sensitive and nuanced way, that same language also exists outside of that context. And interpreting it in isolation can lead to distortion and disfigurement of the sense that it once articulated. The next point is directly linked to this – our use of hermeneutic reasoning, and in particular pattern recognition, in interpretation tends towards this reductive sense. Once we capture words as individual 'signals', sound waves or notation on paper, we risk reducing the meaning and sense of that experience to a precise and categorical oversimplification. Research is often not accepting of the imprecise, the polysemous or the symbolic and can therefore drive us towards this reductive endpoint. And finally, "the realm of meaning is an integrated ensemble of connections among images and ideas that appear in various modes of presentation, such as perception, remembrance and imagination. It operates in a complex of interacting strata consisting of various levels of abstraction, awareness and control" (1988: p8).

Which rather neatly brings me back to that early image of the Harpa Concert Hall in Reykjavik. To my swirling mass of interconnected ideas, artefacts and documented moments. Full of passageways, openings, light and shadow. The potential to wander

aimlessly amongst the riches of structure, form and content, but also the potential to understand and navigate the space, creating sense and meaning along the way.

So, let's recap for a moment. There is the data (the filing cabinet). Then there is the complex, multi-layered, interconnected web of the entire thesis-story-world (the Concert Hall). And finally, there is this actual piece of writing. Words (and pictures) on paper. Line after line, page after page. But how have we gone from one to the next? This is that important second part of the method that I mentioned in Method(ish) - the analysis.

Pegging out the laundry

Analysis of ethnographic data is often thought of as either being etic (where predetermined cultural categories, such as economic, political, gender or environmental are applied to the data) or emic (where the analysis moves from the data to newly created categories that reflect the nature, context and content of the data itself). This emic approach is similar to thematic coding (Braun and Clark, 2006), where broad patterns are identified within the data, and coding is then applied based on those patterns. Thematic coding is a very broadly described method that seeks to recover "the theme or themes that are embodied and dramatized in the evolving meanings and imagery of the work" (van Manen, 1990: p78). Researchers are often drawn to the simplicity of thematic coding, without realising that they are actually applying other more discrete forms of analysis within an umbrella of thematic coding.

So to try to unpack the process of analysis in operation in this work, let's take a look at what I actually did between commencing data collection and beginning to write (not that analysis begins when you stop collecting data or ends when you begin to write, but we'll come back to that in a moment).

My data collection was shaped and driven by the learning and teaching itself. The opportunities to collect data were determined by the scheduling of the teaching sessions, and the data available was determined by the nature of the teaching and learning encounters. This means that my data collection was intermittent, gently paced and regularly spaced (I had two hours of scheduled teaching – or data collection – twice per week for twenty weeks and for a third time for eight of those

weeks when the shorter first year module was also running) – as can be seen in the following timeline (Figure 16). In my mind, each module was like a washing line, and each piece of data got pegged up on the corresponding line as it was experienced, documented and logged. The temporal relationships of the data were the primary organising force.

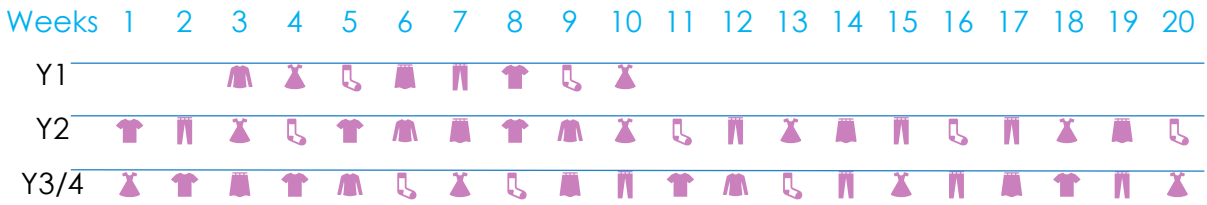


Figure 16: (Washing) timelines of data collection

Obviously, this is overly simplistic, and I didn't just collect one piece of data (or laundry) each week. But each week saw multiple entries in my field notebooks. I had one notebook for each year group, and each week there would be a 'between sessions' entry to detail anything that happened between formal sessions, auto-ethnographic entries and other-ethnographic entries. As an aside, it is worth noting that it can be difficult to capture a full experience without including interpretation in the notes. I therefore also tried to separate the facts of the phenomenon being described from any ideas about what this might mean in my notation.

Added to these entries were email communications, student reflections, assignments, photographs from class and other documentary items such as my 'lesson plans' (usually a bunch of post-its with cues and instructions to myself rather than formal lesson plans). And each week, I visualised myself pegging up these new items on the line. I could sit in my office and 'see' these lines with handwritten field notes ripped from the notebook, alongside printed emails, photos of whiteboards and assorted other items (some far too big to hang neatly (such as posters and physical artefacts). But actually, I couldn't bring myself to rip up my field notebooks, and I certainly couldn't afford the printing to peg up each and every email and document. But it helped me to visualise the data in this way.

I limited myself to this level of organisation while the data collection was ongoing so that I wouldn't unduly pre-judge the data or risk colouring my ongoing data collection by identifying themes or angles that I might then start (consciously or unconsciously) looking for as a researcher.

Moving from the whole to the parts

Once the data collection was complete, I needed to do several things. Firstly, I needed to acknowledge the (small amount of) analysis that had (inevitably) occurred during the teaching and learning process. As I have previously discussed, there is a large heuristic element in the development and delivery of my teaching and learning design in the classroom. I couldn't turn off this part of my teacher brain in order to protect the integrity of my 'objective' researcher brain. So this has necessarily formed a part of my data collection and analysis. In order to acknowledge these initial 'impressions' without compromising the ongoing data collection and research, I tried to retain these as teaching impressions that could be used to further inform the teaching, but as mere 'imprints' in terms of the research, without any further interpretation or 'researcher' consideration.

Then I needed to break free from the linear relationships that I had used to visualise, collate and structure my data inventory. This was also a helpful moment to break free from my teacher-researcher dyad and try to bring a more objective gaze to the student-generated data.

At this point I began an open-ended process of coding. I transcribed all the handwritten data, and then used a series of online spreadsheets to begin coding the data. This process of open coding allowed me to break the data down and look at individual units of data without the burden (or luxury) of the context. This meant that a simple reflective statement written by a student, might represent several individual pieces of data (individual phrases were coded separately). While qualitative enquiry privileges the inclusion of context, in this one instance, removing the context allowed me to bring a fresh eye to the data. Whilst this necessary 'disorientation' of the data was helpful and, I think, necessary, I wanted to retain some sort of bridge between this methodical and painstaking examination and the sense of my complete data set as a living, breathing organism (or a living, breathing concert hall at least). I didn't want to lose the dynamism and energy of the whole

while completing the open coding of the parts, so I used inductive or in vivo coding (Saldaña, 2012), using turns of phrase and expressions of the students to 'name' the codes and then categories. This allowed me to retain a sense of character and life within the data, whilst still looking at the data in a more granular and objective way.

A process of constant comparison (Glaser and Strauss, 1967) was used to refine the coding. This allows you to move backwards and forwards between the categories, codes and data, the oscillation helping to identify consistencies and differences. Using these, the categories and codes can be refined until saturation is reached (all the data is included within the system of codes developed). This also allows you to determine the central focus (the themes that emerge from the data) and then move onto axial coding, where the data is re-interrogated in the light of these themes.

This is all sounding a bit like a grounded theory approach to analysis (Glaser and Strauss, 1967). I was beginning with the data, and not applying pre-conceived ideas or theories to understanding or finding patterns in the data. I wanted to see what would emerge from the data and used constant comparison to refine my coding and try to reach saturation with the data. However, according to Merriam (2009), grounded theory analysis requires a little more than that. The coding must be sensitive to the data, exhaustive (all data must be included in the coding), mutually exclusive (individual units of data cannot be coded in more than one way) and conceptually congruent (all the codes must fit into categories that are at the same conceptual level) (2009: p186).

I move away from grounded theory slightly on the point of mutually exclusive codes. I often code items of data multiple times, and think about multiplicities of meanings and understandings that could be drawn from individual instances. I can only move to more unique understandings of the data once I start to reconstitute the individual components of the data into constructions and stories that relate different pieces of data to each other via a process of triangulation. And even at that point, I am reluctant to limit myself or anyone else to one single, 'correct' understanding. I think that the subject matter (experience) is just too complex for that level of categorical thinking.

And then back to the whole

Once I had then identified themes that were supported (as objectively as possible) by the individual components of data, I reverted to working with whole data sources. Putting the phrases back together into reflective statements, assignments and conversations, and then relating these back to the actions, the moments, the phenomena from where they were created. At this point, I became a little more eclectic in my approach to analysis and drew on heuristic (Moustakas, 1994), hermeneutic (van Manen, 1990), narrative (Labov, 1973; Plummer, 2001; Bruner, 1990), discourse (Gee, 2005) and semiotic analysis (Manning, 1987) to explore the potential meaning that could be drawn from the data. These further forms of analysis will become implicitly apparent as we go along.

The writing on the wall

> *"Your task is to re-member, translate into language the images arising from your body, the sea, the theatre of dreams – allowing them to surface at will and capturing them in your net of words"*
> *(Anzaldúa, 2015: p102)*

Now I mentioned that the analysis phase of this research is not a discrete period of time between collecting data and beginning to write the ethnography. As I have already discussed, there was inevitably analysis that occurred while I was in the process of engaging with the students as a teacher – both in terms of 'normal' teaching awareness and process (reflecting on the progress of the students and adjusting the dynamic curriculum delivery to best suit the students' learning) and in terms of the heightened 'researcher gaze'. While I tried to keep these separate and act on the 'teaching' analysis as I would normally without being influenced by any 'researcher reflections', I would be very naïve to think that there wasn't some degree of bleed between the two.

At the other end of the research process, the interaction between data analysis and writing is much more pronounced (and acceptable). The distinction that I made previously working with the data in parts and as a whole is probably a better marker of the focus and purpose of the analysis than the actual timing. Once data

collection had ended, I purposely entered a phase of analysis that worked with disconnected, intentionally disoriented fragments of the data to move away from the temptation to pre-emptively 'interpret'. I needed to see, hear and feel the multitude of different signals present within the data – irrespective of what these might mean. This was a disciplined and methodical process.

Moving from this granular analysis back towards working with whole pieces of data and the data as a whole, marks a new phase in the analysis. A creative, constructive, sense-making, meaning-finding, interpretive phase. A more intuitive process. And for many researchers, and certainly for me, this goes hand in hand with writing. We can learn a lot from a phenomenological approach to writing - "writing itself is a reflective component of phenomenological method. Phenomenological writing is not just a process of writing up or writing down the results of a research project. To write is to reflect; to write is to research. And in writing we may deepen and change ourselves in ways we cannot predict" (van Manen, 2016: p20).

Thick description

The style of writing in ethnography is often called 'thick description' (Geertz, 1973). Many ethnographies present passages of data written using thick description, interspersed with more technical, academic or formal writing where the interpretation is introduced. The most famous definition of thick description, rather than coming from Geertz himself, comes from Gilbert Ryle (2009). He describes a boy with a facial twitch, that results in the frequent closing of one eye. He then describes a second child, perhaps bored by a long lesson at school, repeatedly winking at another child. If you described what you could observe literally, both these incidents would sound the same – an intermittent closure of one eye. However, in the second example, there is a very important and obvious social interpretation of the movement. The gesture has social meaning. And without describing that meaning, you are not communicating anything about the moment that you witnessed. A third child sees the second child winking and repeats the gesture in a somewhat exaggerated form. A parody of the earlier wink. That has yet another level of meaning. And then what about the fourth child, who seeing all this action, goes home and practices winking in the mirror? Not distinguishing these very different actions, would fail to communicate something critical about the observation. This is the essence of thick description.

Now, the writing of this story makes use of thick description – both in terms of the vignettes and presentation of data, but also in terms of the interpretation, the situation of the experiences in a wider context and in their relation to theoretical ideas. I have tried to maintain a consistent and coherent narrative voice throughout – moving through different modes of introducing, exploring, telling, describing and interpreting whilst maintaining a continuous (I hope) sense of myself as the author, you as the reader and the world in which we are coming together. And for me, that doesn't just exist within the data itself, as passages of thick description, but also in the in-between moments and the work as a whole.

We all tell stories

> *"Nonnarrative knowledge attempts to illuminate the universal by transcending the particular; narrative knowledge, by looking closely at individual human beings grappling with the conditions of life, attempts to illuminate the universals of the human condition by revealing the particular"*
> *(Charon, 2006)*

Thick description is a narrative form of writing in that it provides a "fundamental scheme for linking individual human actions and events into interrelated aspects of an understandable composite" (Polkinghorne, 1988: p13). In fact, narrative is around us all the time. It is ubiquitous. As Barthes says "there are countless forms of narrative in the world. First of all, there is a prodigious variety of genres […] Among the vehicles of narrative are articulated language, whether oral or written; pictures, still or moving; gestures and an ordered mixture of all those substances; narrative is present in myth, legend, fables, tales, short stories, epics, history, tragedy, drame, comedy, pantomime, paintings, stained glass windows, movies, local news, conversation. Moreover in this infinite variety of forms, the narrative is present at all times, in all places, in all societies; indeed narrative starts with the very history of mankind; there is not, there has never been anywhere, any people without narrative" (1975: p237).

Narrative analysis, in terms of qualitative research includes both analysing narratives (whether these are found narratives or perhaps interview transcripts) using narrative

theory to structure the analysis and interpretation, and the creation of narratives as a way to engage with, interpret and communicate data and research findings. I am working with narrative in the latter form – using stories to help me explore and communicate ideas that are arising from the data of my own and my students' classroom experiences.

In terms of the construction of this story and thesis a lot of choices have been made. There is the overarching story that contains the story-world, the experiences being explored and the conception, conduct and communication of this piece of academic work; and there is the inclusion of individual stories that detail particular moments in time, interactions and phenomena from the classroom. How have these been defined, selected and boundaried? What makes something worthy of inclusion? Why have some (actually many) stories not been included? Why has the story not been told in a different way?

Partly this is informed by the coding process. As themes emerge, you look for those stories that have the biggest variety of tessellating pieces – that is to say, those that have a lot of different pieces of data that add something in relation to the story. I'm not looking for data that 'supports' a story, rather I'm looking for a variety in terms of perspective, types and sources of data, and their relation to the theme. I'm looking to build the most complex representation of a moment or phenomenon that I can. In that way, I can be sure to develop an understanding, a sense and find a meaning that is also complex, without stepping over the impossible boundaries of certainty, fact or truth. I can retain and maintain uncertainty in my thinking. A good and appropriate kind of uncertainty.

In fact, speaking of including as many sources of data as possible in relation to a specific understanding of an event or phenomenon is one way to add reliability and credibility to the ethnographer's account. Steven Lubet (2018) in his book 'Interrogating Ethnography', suggests that rather than being seen as having expertise relating to a particular community or social setting, ethnographers should instead be seen as lawyers at a trial advocating for a particular understanding. They should present as much evidence as possible to support their interpretation, and the most powerful testimony they can invoke is that of the sceptical participant. The

ethnographer should seek out evidence from the person who is most likely to disagree with the ethnographer's own interpretation. Being able to successfully present, work with and ultimately counter that objection or disagreement will add power and weight to the interpretation being presented.

However, not every choice can be guided in this way. My complete data set is incredibly rich, and there are many, many potential stories that could be included, which could create completely different overarching narratives. So something other than the strength, variety and triangulation of data must play a part in directing the writing and construction of this story. Frank (2012) calls this phronesis – "the practical wisdom gained through analytic experience" (p43). This is informed by the practiced ability of the researcher to see, hear or otherwise identify stories, from the total collection of all possible stories, that need to be written. Frank refers to this as the sense of being chosen by the story. Further, phronesis is informed by values and intentions – so for me, I have chosen to explore authenticity, so stories that allow me to explore this concept would be chosen over equally thrilling or important stories that do not. Finally, phronesis is a craft – that is it is an iterative process. Stories are related, thought about, spoken about, refined, written about, thought about, spoken about and so on. The stories that make the cut are those that sustain this level of interest and attention. The stories that give more, the more you give them voice.

(Im)personalising Stories

> *"the word now gazes back at me, reminding me that it is only a word. As soon as I wrote or pronounced this word, the meaning that I aimed to bring into presence has already fallen away, absented itself (van Manen, 2016: p 21).*

In real life, when we tell stories, we are a part of the stories that we tell. They somehow include us, the teller. We may be implicitly or explicitly included because we are a part of the story, we may include ourselves by offering opinion or emotion in relation to the story (even though we were not a part of the event in the story) or we may include ourselves bodily in the telling. By voicing, gesturing, emoting or otherwise embodying the telling.

In qualitative research and even in ethnography, there has been a tradition of removing the teller from the story. Communicating the story in bare and factual terms (I would argue that it then ceases to be a story, but that is an argument for another day). A realist telling would be "author-evacuated, interpretively omnipotent, and cognitively oriented" (Sparkes and Smith, 2012: p55).

However, an important part of analysis is the ability to empathise (rather than sympathise) with the participants. And this is achieved by a process of indwelling (Sparkes and Smith, 2012). This means taking the experience inside ourselves, embodying the experience to understand it at a deeper level. Moving beyond the cognitive to a felt understanding - "contrary to those […] who fear the mystery of empathy, I suggest that the anthropologist has no choice but to use body and soul, in addition to intellect, as a means of approaching others' experience" (Okely, 1994: p61). And yet, this embodiment is often then cast aside in favour of (what I might argue is a pretence of) rigour. In favour of theorisation. In favour of representing complexity in terms that abstract the understanding so completely from the experience that it no longer relates to the participants or the researcher. In fact, I think that in living within the stories that we tell (and having them live within us), we begin to avoid some of the problems of description and categorisation. We often think that precision is about being able to name or label something succinctly. But as we have discussed previously, words are nebulous. In a given context they are rich and meaningful, but removed from that context they lose that power - "in the act of naming and gaining knowledge, we cannot help but rob the things we name of their existential richness" (van Manen, 2016: p21). Indwelling encourages us to say more, to tell in a different way.

Now I'm sure there are times when a more realist approach is wholly appropriate, but I hope that you'll agree that this isn't one of them. I want to indwell. I want you to indwell. And we should keep indwelling as we write, read, consider, wonder, speculate, imagine and then get on with our lives.

It's time to decode and get going

Clearly the themes that emerged from my data and that I have selected to form the backbone of this story are going to be somehow related to authenticity. These themes actually became apparent during the teaching (and limited researcher)

reflection, during the data collection period, and were born out in the coding process. They emerged from preoccupations of the students, with which I wanted to engage as a teacher and the design of the learning and teaching facilitated me in doing so.

The first theme that we are going to explore came up on that early visit to my prospective teaching rooms. And then fully asserted itself when the first-year students began their module, and I had to somehow fit 170 students in a (horrible) lecture theatre that only sits 150 people. It began as my own, private concern, but quickly became a concern for the students as they arrived on that first afternoon and didn't want to sit in certain seats, said that they didn't want to complete the module if they had to come back to the same room every week and, together, we had to rethink our concept of space.

We gotta get out of this place

> *"We shape our buildings and afterwards our buildings shape us"*
>
> *(Winston Churchill, 1943)*

Lecture theatres, rooms or even buildings are not merely inert containers for our activities. They exert an influence on what happens within them. Partly this can be explained by the practical design of a place – the size, shape and furnishing. And this design may both explicitly and implicitly influence the function of the place. But also, there may be cultural design elements or expectations of the place that determine how it is used and experienced.

If we take our steeply raked lecture theatre as an example, we can quickly begin to see how this might shape the activities within. Anthropologist Edward T. Hall would describe this as "fixed feature space", that acts as a "mold into which a great deal of behaviour is cast" (Hall, 1966: p106). The seats are arranged in rows, facing in the same direction. The rows are narrow, and once seated, the desk is snugly against your body. You are held in a forward facing, attentive, upright position. The steep rake allows an uninterrupted view of the projection screen at the front. The contents of that screen are the main attraction here, not any presenter or person standing small in the distant lower region of the room. The acoustics dampen all sound,

except that projected through the amplification system. There will be no informal discussion or small talk. Once seated, your conversational options are rather limited to just the person either side of you – the steep angle of the incline prevents easy communication with those in front or behind.

Osmond (1959), during a comparative study of patient interactions in the fixed feature setting of hospital wards and those in the more relaxed setting of the cafeteria, discovered that the layout of seating is critical to stimulating interaction. On a ward, the individually demarcated territories comprising a bed, chair and table surrounded by a curtain did not help. But more importantly, the directional nature of the layout with all the chairs facing down the length of the bed, particularly stifled conversation. In the cafeteria people seemed to chat freely. Sitting at tables for six people, Osmond noted that those sitting around the corner of the table, at right angles to each other had twice the number of conversational moments as those sitting next to each other on the same side of the table. And those sitting next to each other had three times as much conversation as those sitting across from each other or in the remaining positions. Further still, diversity of interaction could be encouraged by moving away from fixed features that demand conformity from the users. So for example, having some movable chairs in a seating area, with a walkway passing through marked by waist high barriers might encourage various configurations of seated conversation, but also passers-by might stop, casually leaning or perching on the edge of those barriers to join in the chat.

Just from this simple example, we can see that our lecture theatre is designed in a way that Osmond would have called 'sociofugal' (Osmond, 1959). It demands that students conform to a single pattern of use, that minimises their interaction. In fact, it does more than that, packing the maximum number of students into the smallest spatial footprint with the least opportunities for interaction. A 'sociopetal' space (Osmond, 1959), would encourage a full range of diverse interactions, the sort of communicative aspiration we have for our modules. Now, you might be thinking, that a hospital setting is very different to that of a university. Patients are somewhat captive, vulnerable and passively accepting of treatment that they hope will benefit them. Whereas students are independent, assertive, and are choosing to access education on their own terms.

Goffman (1959) can help us to see that these two situations are not as different as they sound, and that our students are perhaps not as empowered as we believe. In Presentation of the Self in Everyday Life, Goffman argues that we are 'performing' when we are participating in a social interaction that can be observed by others. And this performance constitutes a 'front' (1959: p32). There are several aspects that contribute to this front – the first of which is the 'setting' (1959: p32). The design, features, furnishings and everything that we have so far talked about are crucial in prompting the individual to perform in a certain way. So for our students, entering the lecture theatre, they are prompted to conform to an implicit expectation of behaviour dictated by the place. This is then expressed in the other aspects of 'front', namely 'appearance' and 'manner' (1959: p34). Now this might sound like a hugely negative phenomenon, the students are being entrained into conformity by social, spatial and cultural expectation. However, these social and cultural cues can also be a relief to a student. By publicly conforming, they are relieved of the obligation to show their real selves. They can hide in plain sight, test the waters and find their feet before asserting their individuality.

What the room wants



Data Image 5: Commencing our session in the lecture theatre

This room, our meeting place for the next eight weeks, 'wants' the students to sit passively and absorb information presented to them on the screen (Data Image 5). It does not 'want' them to discuss, mingle, move about and physically interact. And given that we are commencing an active learning module together, this is a problem. My key aim during this module is to empower the students to see themselves as individually valuable. To view their own life experiences as a priceless commodity, that can enable them to have a unique engagement with whatever they want to study. And then that engagement, in and of itself, becomes yet another invaluable commodity. And finally, bringing together all these individual assets collaboratively, as a group, can result in an (at this point) unimaginable wealth of creativity, insight and ingenuity. A sum that is greater than its parts. And the starting point for this journey is for the individual to feel valued by another person or student. To be seen and heard. To interest and engage another person. To become a team member. To strive alongside others for a common goal.

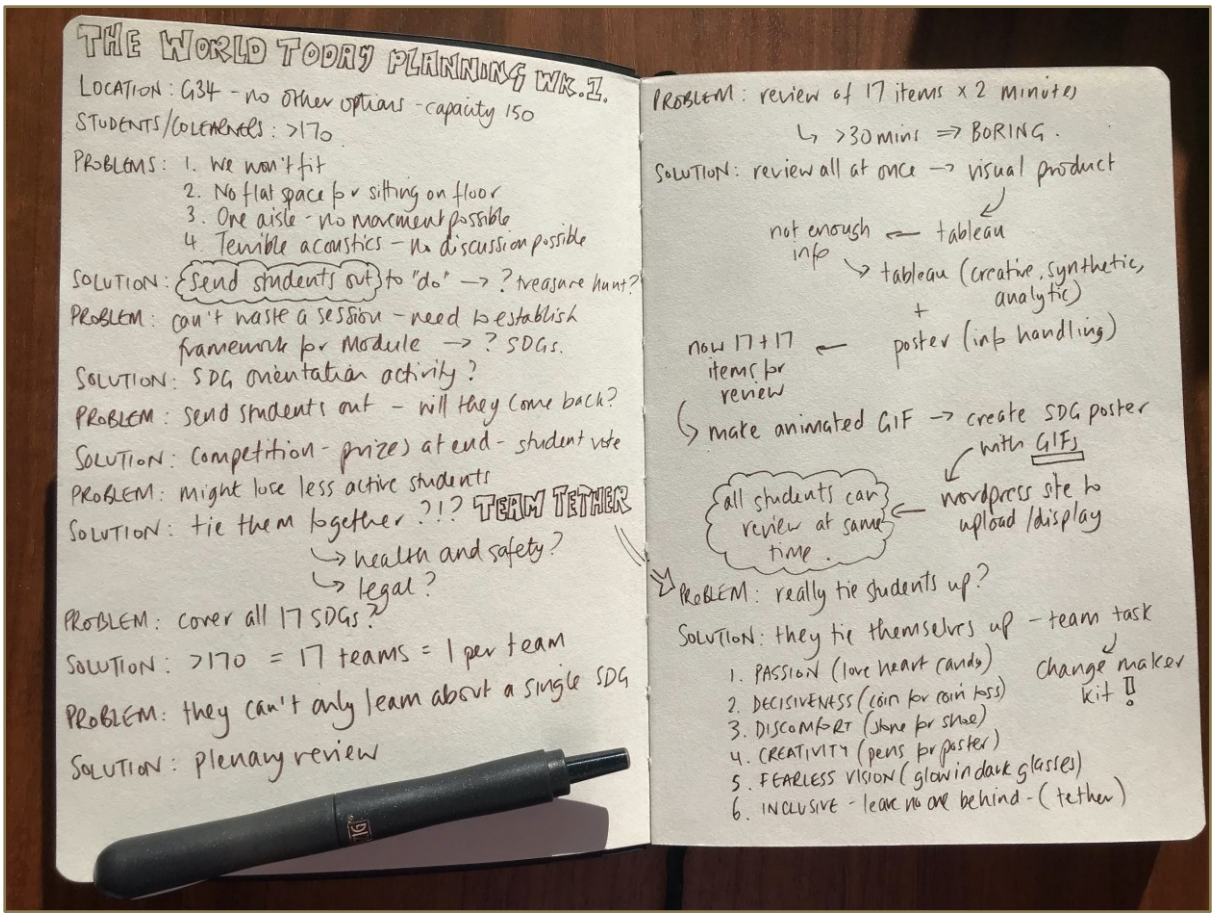
Now, if we bear in mind Goffman's thoughts on social interaction and the need to 'play a part' before we can really have the confidence to reveal ourselves in public, it is important that this journey is explored gradually. That students are supported in participating with defined cues and settings, so that participation can feel safe and flexible. Some students will be more ready to participate than others, so maintaining a degree of variability in terms of participation is important. The activities need to be equally accessible and engaging to those who are ready to take a giant leap as to those who really just want to stand on the edge and watch.

And so my aim for this session is to get the students out of this room as quickly as possible. This session has to be transformed from a whole group collaborative activity (that had run very successfully for several years) occurring within the room, to an activity that grounds the students in the overarching topic of sustainable development and global challenges, allows the students to interact in teams and collaborate as a whole class, outside the room.

Plotting our escape

The design process for this session was highly pressured (we had to turn this around in a matter of days), but really fun. I love a problem to solve, and this room presented

us with many. I documented the detail of the design and delivery of this session on our teaching blog (Hauke, 2018), and the basis of that detail is captured here in my field notes (Data Image 6).



Data Image 6: Planning for session 1

It's an intimidating room for the students to enter. They come in from the back of the room in the top corner. For many of the students, this room will not be familiar and neither will the building. We are in the Life Sciences Building across campus from the home departments of the majority of students. So it is not surprising that the students conform to the 'demands' of the room. They sit in rows, they don't talk to each other, don't introduce themselves or start to make acquaintances and allegiances. They sit in silence waiting for me to begin the session. At the moment, we are all outsiders. Foreigners to this territory. The students are united by the choice that they have made to sign up to this optional module. However, they haven't come to my home department for their class (because I don't really have one). There is nothing about where we are that speaks to my identity as the teacher, to their identity as

students or to our identity as a class. Except for the four walls of this room, the furniture within, the invisible 'culture' of this place that demands of us a way of behaving and interacting. So it is important that I make a big statement. Start this module with definitive action. Something to begin creating unity and identity for us as a class. And so we abandon this place in favour of space. The students form teams, leave the lecture theatre and commence a creative team activity.

But as over 170 students excitedly spill out of the room, across the mezzanine, down the stairs and out into the crisp evening air of campus our one unifying, identifying factor is gone. We are no longer contained within our place. Something has been lost.



Data Image 7: Students spilling out of the lecture theatre in their teams

Rejecting the place in favour of space

Ingold (2011) differentiates space and place with a very helpful and simple diagram (Figure 17).

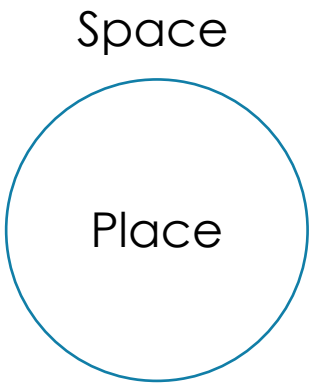


Figure 17: Differentiating place and space

Place is that contained within something, and space is that without container. In fact, for Ingold, space is a problematic concept – "living organisms inhabit environments, not space […]. Farmers plant their crops in the earth, not in space […]. Their animals graze pastures, not space. Travellers make their way through the country, not through space […] they plant their feet on the ground, not in space […]. When we are at home, we are indoors, not in space, and when we go outdoors we in the open, not in space. Casting our eyes upwards, we see the sky, not space, and on a windy day we feel the air, not space." (2011: p145).

So is the reason for our loss, as we move out of the lecture theatre, our pursuit of an engagement with space? We might redraw that simple diagram with a little more contextual meaning for our purposes (Figure 18).

Although we are now uncontained and no longer united in our identity as inhabitants of the room, a lot has been gained. The students are now moving freely, communicating and creating their own 'places', finding their own identities and making their own ways to belong together.



Figure 18: Space and place in context

A big worry for me was that I would release over 170 individuals from the lecture theatre, having met them face to face for perhaps only twenty minutes and all at once. How would I recognise these students in the wild? Would I be able to circulate and encourage and support the students once they were outside? How would I know which of the thousands of students on campus were mine? There is nothing more humiliating that going up to complete strangers and asking 'are you one of my students?'. Luckily, I had the foresight to tie the students together in their teams and to get them to wear glow in the dark glasses, which in the increasing gloom of early evening actually made them very easy to spot (Data Image 8 and 9).





Data Images 8 and 9: Student teams, creating their own identities and places with their Change Maker kits, tied together and with the team leader wearing glow in the dark glasses

But I didn't just gratuitously tie the students up for my own benefit. The team activity that I had designed required the students to create a tableau vivant to represent one of the seventeen sustainable development goals (and approximately 170 students makes seventeen teams an easy win), along with an information poster that we would animate as an alternating GIF, and then assemble along with the sixteen GIFs from the other teams to make an animated version of the Sustainable Development Goals poster at the end of the class. But to do this activity, the teams had to use all the components of the 'Change Maker' kit. This included glow in the dark glasses (for fearless vision), lovehearts candy (for passion and energy), a coin (for timely decision making using a coin toss), a stone (to put in their shoe for discomfort), coloured pens (for creativity) and a pack of team tethers (so that no one would get left behind). And so the teams tied themselves together. For a valid pedagogical reason. I had demonstrated the kit in the lecture theatre, but what had really won the students over was the moment when I took off my shoes and shook out the stones that I had been walking around on all afternoon. There was barely time to wrap up the briefing before the students were clambering out of those tight rows to claim their kit, team up and get out of the room.

Subverting the place, breaking expectation

Before we move on to the second week, let's take a moment to go back to that quote from Winston Churchill (Churchill, 1943). This was part of a speech in

parliament about planning the faithful rebuilding of the House of Commons following the bombing of the Second World War. Churchill was concerned that if the intricate and, some might say, claustrophobic layout of the House were to change, it would inextricably alter the behaviour of politicians and the conduct of government. Churchill wanted to maintain the high energy, combative politics of fierce debate that he felt was central to successful democracy. He actually makes four important points during this speech. The first is that bigger is not always better – in fact he advocated for a House of Commons that could not seat all the Members of Parliament at once. Secondly, he stated that density creates value – meaning that people packed together tightly, tend to create a state of friction and high energy, which in turn might lead to more creativity, more passion or better outcomes. Thirdly, the room in which we operate develops a 'memory' – that is, permanent features of the room (such as furniture, doorways, walls and windows) act as anchors for the activities that have occurred there. We act within that shared memory, each time we work in that same space. Finally, he stated that although we design and control the areas in which we live, we can only live within the constraints of that design – so in effect, our experience and existence is shaped by those places.

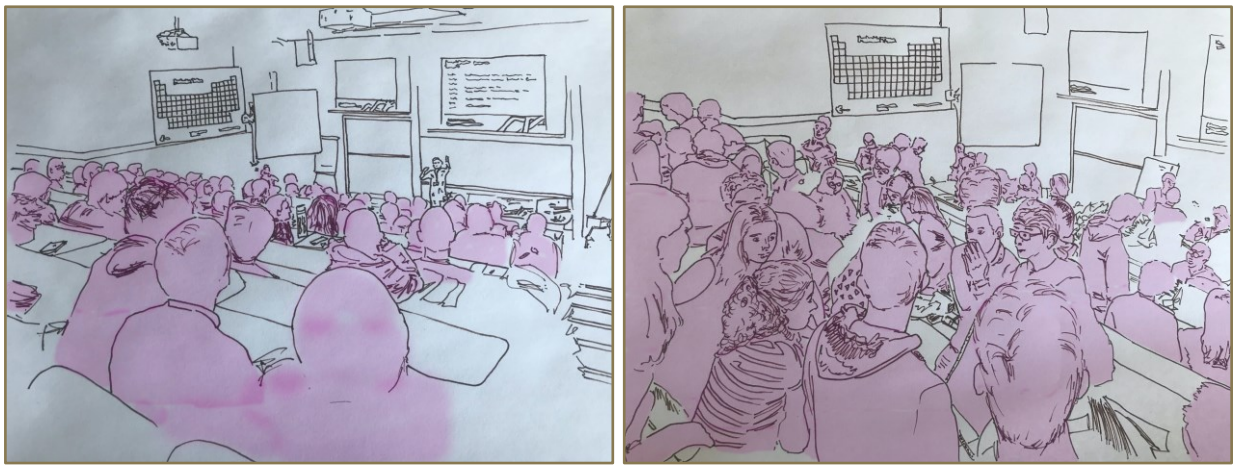
The first two points seem inherently linked to me. And in fact, I know from experience that there is nothing worse than a teaching room that seats 200 people when you have a class of twenty or thirty. So while we rejected our room in the first week and chose instead to go in search of space, in the second week I actively planned for a tight squeeze, density of bodies and a thoroughly uncomfortable experience.

Having started to build identity, belonging and a sense of the culture of our shared experience, I felt that I could take more of a risk in the second week. I had managed to secure a one-off room swap, to an equally small and unsuitable lecture theatre, but this one with two access points to each row of seating and a lovely shallow rake. This lecture theatre was slightly closer to my own home turf, in a largely administrative building, but not at all familiar to the students. They filed in and started to occupy the seats, but there was more of a buzz. There was recognition and reunion as team members found each other from the week before. Anticipating that this session might be interactive (as the last had been), the students began

filling the seats from those furthest away from me. And by the time the last students were piling in, the only seats left were in a tight semicircle in front of me.

The session commenced with a briefing, the students behaving as students should, seated in rows, looking forwards. But this time, with improved acoustics, I demanded more discussion from the students as we recapped the activities of the first week. I used photographs from the session to prompt the students' memories and to help cement the learning and their achievements from the first week. We had a giggle as we couldn't remember what the glow in the dark glasses were for – somehow we couldn't get past 'seeing in the dark'. But once we latched onto 'fearless vision', we moved on together to see how we could apply our learning from last week to this session. Which I advised the students was going to be very tough. In fact, the task I was going to set might actually be impossible. But together, we would find a way to tackle it. We would try things out, learn from each other, and make the best of a very imperfect and uncomfortable situation (and room).

The students would work in groups of fifty to sixty students per team to create timelines charting extinctions, innovations and focalisers (events that are picked up in the media and raise awareness of wider issues – such as the death of the child Alan Kurdi raising awareness of the Syrian refugee crisis). They had climbing rope, string, ribbons, coloured card luggage tags, pipe cleaners and assorted other craft materials, and ninety minutes. The timelines must be constructed within the room, everyone must act as safely as possible and not block the exits, and every single person must contribute to their team's work. We divided the students into a top group, middle group and bottom group using the lecture theatre rows, and I said 'Go'. And nothing happened. A bit of cajoling and frantic arm waving later, and all the students were up on their feet, subverting the environmental and cultural cues of the lecture theatre (Data Images 10 and 11).



Data Images 10 and 11: Moving from seated to active

Every ten minutes or so, I would interrupt the action to point out good ideas and best practice that I could see happening. It is really important that the students understand that they can learn from each other, and this is a very useful way to demonstrate that. So in the first interruption, I was able to reflect that the middle group, at the instigation of Gregor, had managed to integrate every single team member – there was a moment when the crowds parted and I saw his group standing in a long ring shape around a couple of rows of seats, with the rope going all around the group, and every student in that team with hands on the rope. It was such a powerful image, I immediately wanted to share that with the other students. In another moment, the team at the back had established a clear leader, Bernard, who had assumed an elevated position standing on a seat (and at times, much to my health-and-safety-horror, standing on the table bench tops), orchestrating some fantastic delegation and team working (Data Image 12).



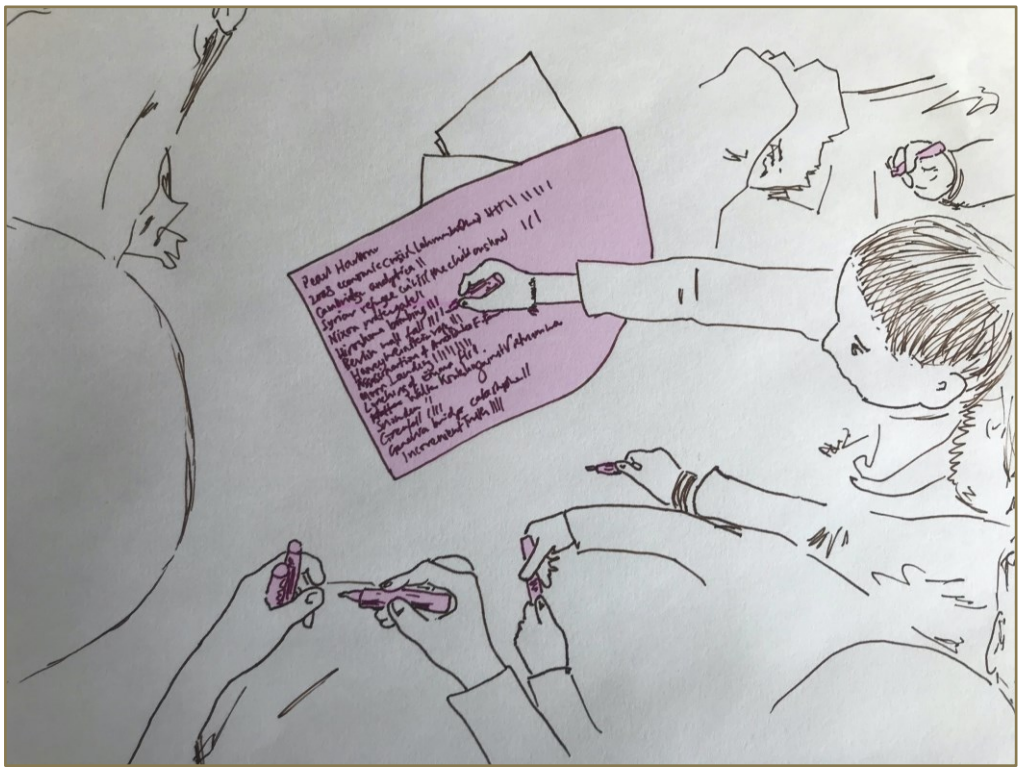
Data Image 12: Bernard takes the lead

As the activity progressed, it was incredibly hard work to stay on top of the different student groups, keep an eye on the safety of the class as a whole, respond to individual queries, and keep up my series of interruptions and reporting of excellent progress. It felt like everyone was taller and louder than me, and with over 150 people excitedly active in an enclosed (and hot) room, with a low ceiling, it was quite overwhelming. But progress was being made, the room was strung with rope and timelines were emerging (Data Image 13).



Data Image 13: Timelines emerging from the chaos

The group at the front of the room had quite a different approach to the others, and were very quiet. The team leader, Freddie, had implemented a sort of captain system – he had five or six students leading individual sub-groups and reporting to him directly. The work was being completed incredibly efficiently, and democratically – they voted on every step of the process (Data Image 14). In fact, they completed the final task, to form three sub-teams around the three most fascinating focalisers with time to spare. Interestingly, they were the team with the most physical space. There was some floor space at the front of the lecture theatre, and being the bottom group they had spread to inhabit that prime real estate. Perhaps, their lower-density-lower-energy-less-creative-but-ultimately-very-efficient progress reflected that luxurious square footage. These students did not subjectively report any less 'hardship' than the other students, they felt that they were in just as tough a situation. However, I felt that their accomplishment represented less spirit somehow. Less resilience, less resourcefulness, and perhaps a lesser triumph. Although, to be fair, they were resourceful enough to capitalise on their fortuitous position and make the most of those extra few feet.



Data Image 14: Voting on the most fascinating focalisers

In nearly every subsequent session, we reflected on the difficulties and challenges that we had overcome in this timeline session. "Each irritant is a grain of sand in the oyster of the imagination. What accretes around an irritant or wound may produce a pearl of great insight" (Anzaldúa, 2015: p2). Some students even remarked on it in their final learning reflections at the end of the module, with Mandy stating that the module enabled her to

> learn how to work in big groups (and in hard conditions)

Context is everything

Data Vignette 4: It was so good

Leaving the classroom with my teaching fellow at the end of the session in week 2, after the timeline activity

> 6.20pm Tuesday 30th October 2018
>
> Teaching Fellow: Wow, that session went so well. It was amazing…
>
> Me: Really?
>
> Teaching Fellow: Yes, it was so good… Don't you think so?
>
> (noticing the look of total shock and abject horror on my face)
>
> Teaching Fellow: Well, maybe it was quite hard for you, but for me, just helping out and joining in with the students, it was great. We all achieved so much – the students did so well. I never thought that we'd actually get three timelines, in that room, and each timeline team split into three focaliser teams. It was perfect!

As we left the lecture theatre, after shepherding out the last of the students, clearing up, and gathering all our materials to take back to our office, it became clear that my Teaching Fellow and I had experienced this session in very different ways. We had both been participating in the same shared experience – the same activity. We even had similar roles – we were both staff members, responsible for 'teaching' this class. However, the activity was of my design, I was the lead in the room, and I felt the responsibility of making this session work. I was the one bouncing up and down, shouting over the din to make my timely interjections, orchestrating the chaos. I had my eye on the clock, on the safety of the students, on the inclusion of every student, on the progress of the teams, on the contributions of my Teaching Fellow, on the overall aims of the session and on pushing the envelope of discomfort, friction, subversion and hardship as far as possible, but no further.

And these responsibilities, these multiple tasks and foci had impacted my own experience. I was exhausted, drained of the ability to even reflect at this point. And this stark contrast to the experience of my Teaching Fellow raises a very important point. There are all sorts of contextual factors that impact our experience of a particular phenomenon. And if we are to capture, or reflect on experience, it is important to capture as much context as possible. So for my experience, during the moments of this session, all these additional worries, responsibilities and tasks are important context that impacted my experience. Without knowing about these, I might even believe that the session had not gone well. I might think that the chaos had been too much. That I had ripped open that envelope, scattered the contents on the floor and then stomped all over them.

Let's look at another example where this proved critical. In the weeks that followed, the students worked in their focaliser teams to research the event that they had chosen and the associated issues raised, and to collaboratively create a knowledge base for that topic. Within each team, there were students specialising in 'Analysing Global Progress', 'Collecting and Understanding Data' and 'Innovating for Change'. Each week the students attended a thirty-minute workshop for their specialisation at the start of each session and then spent the rest of the time in their topic teams, contributing their unique perspectives. It was during this period of the module that I received notice that a VIP would be attending one of the sessions to observe our

class in action. And further, that I would be required to attend a meeting with the VIP prior to their visit to my class. The critical element of this, was that the meeting would occur at 4pm, when my class was actually scheduled to start. I tried to explain that this was not possible, I couldn't be in a meeting and teaching my class at the same time, but was helpfully advised that I would need to make this possible. So, I rearranged the planned activities for that week – shifting the workshops to the end of the session and arranging for the students to begin the session in their teams, come together for the 'visit' and then finally move into their workshop sessions.

The visit was a disaster. The VIP was late arriving. The meeting took much longer than I had been promised, and instead of arriving to my session 45 minutes late with the VIP, I actually arrived well over an hour late. The students had been sat waiting (in the horrible lecture theatre), getting fed up and also slightly nervous about this imposing visitor. So when we eventually swept in to the room, the students were pretty hostile. They didn't want to play along and show our visitor how active our class was. When I asked the first question of the room, no one answered. Not one student made eye contact with me. I eventually got things going a little, and we shared the photos of those first two weeks, and had our VIP trying to guess what all the items in the Change Maker kit were for. But the VIP was also not interested in playing along, and despite wearing the glow in the dark glasses, it was an uphill struggle.

I felt extremely dejected after this session. I felt that I had thrown the whole module under a bus. I felt ashamed that I had been pushed around and not stood up for my students and insisted that the VIP came on our terms or not at all. I was inconsolable. I had been under extreme pressure for days leading up to this visit. There had been innumerable rows, heated discussions, tears and tantrums (and not all from me). And now, I had subjected my students to this humiliating and degrading experience. Everything that we had been building together felt broken.

But this was not the same experience that was had by everyone. Without the preceding stress and responsibilities, the students were merely bemused by the goings on. They were fed up from waiting around, and keen to get back to work. My Teaching Fellow felt that the session had gone as well as could be expected. He

didn't feel the interminable silences when the students were reticent to join in and contribute were as painful as I felt them. He thought I was funny, the students were funny and perhaps (just perhaps), our VIP had been impressed and amused as well.

We can't control for the variables

So again, we see that the personal context is critical to understanding an experience. And so auto-ethnography can contribute something really valuable to this exploration of experience (even the experience of others). Firstly, I can only access the experience of the students through my own experience. So it is important that I can understand my own experience as fully as possible. Knowing, recording and reflecting on the external pressures, the fact that I skipped lunch, had a row with my boss, forgot my library card and so on, is critical to understanding the position that I was in personally to engage with my own experience. Beginning to unpack those additional perspectives allows a deeper understanding of the experience. Secondly, while it is possible to reflect on my own contextual demons (or angels, they don't necessarily have to be bad things), it is not possible for me to know every relevant contextual factor when trying to understand the experience of my students. I don't know whether they missed a deadline that morning, had a row with their housemate, are feeling homesick or whether they just met a new friend, got a top grade in a test and finally found some lecture notes they misplaced last week. And without causing the students to reflect on their own experiences in a way that would alter their engagement with those experiences and potentially their learning behaviour in class, I can't really access that contextual information about them. I can be alert to its existence, on the lookout for things that emerge in casual conversation, but I can't draw attention to these factors. So knowing this detail about at least my side of the experience, helps to lend a little clarity to our exploration.

But auto-ethnography itself is not without issue. The term has had many and varied meanings since its inception, including the study of one's own people (Hayano, 1979; Van Maanen, 1995). However, more recently, the term has been defined as a research approach that brings together both autobiography and ethnography (Ellis, Adams and Bochner, 2011), and it is in this sense that I am using the term.

Critics of autoethnography believe that as a method, it fails to deliver on some key points of sociological enquiry, which should (Delamont, 2009: p59-60):

- "make the familiar anthropologically strange"
- "be analytic not merely experiential"
- not focus on the "minutiae" of researchers' lives, which are not "usually interesting or worth researching"
- be possible to "write and publish ethically"
- focus on the powerless rather than those with the power to conduct research
- offer insights into the wider world, not just the world of the researcher

Answering some of these criticisms, autoethnography specifically, and ethnography more broadly, can be thought of as either 'evocative' or 'analytic' – styles that take up opposing ends of a spectrum of activity that broadly encompasses reflexive practice (Hertz, 1997), enhanced ethnographic practice, autobiographical practice and sensual scholarship (Stoller, 1997). Evocative ethnography, as described by Carolyn Ellis "includes researchers' vulnerable selves, emotions, bodies, and spirits; produces evocative stories that create the effect of reality; celebrates concrete experience and intimate detail; examines how human experience is endowed with meaning; is concerned with moral, ethical and political consequences, encourages compassion and empathy; helps us know how to live and cope; features multiple voices and repositions readers and "subjects" as coparticipants in dialogue; seeks a fusion between social science and literature … and connects the practices of social science with the living of life" (1999: p699). Analytic ethnography privileges analytical reflexivity, narrative visibility of the researcher's self, dialogue with informants beyond the self and a commitment to theoretical analysis (Anderson, 2006: p378).

Other writers and researchers from both the sciences and humanities have worked to create forms of writing that include themselves and their personal experiences in their explorations of worlds and cultures.

Loren Eiseley, anthropologist and natural scientist, saturates his writing about the world with his own personal perspectives, memories and experiences (Eiseley,1946: p14):

> "men see differently. I can at best report only from my own wilderness. The important thing is that each man possess such a wilderness that he consider what marvels are to be observed there. […] I do not pretend to have set down, in Baconian terms, a true, or even consistent model of the universe. I can only say that here is a bit of my personal universe […] If my record, like those of the sixteenth century voyagers, is confused by strange beasts or monstrous thoughts […], these are no more than my mind conceived. On the world island we are all castaways, so that what is seen by one may often be dark or obscure to another"

Gloria Anzaldúa, Chicana cultural theorist, developed a style of writing that she termed auto-historia (2015: p6):

> "in enacting the relationship between certain images and concepts and my own experience and psyche, I fuse personal narrative with theoretical discourse, autobiographical vignettes with theoretical prose. I create a hybrid genre, a new discursive mode, which I call auto-historia and autohistoria-teoría"

Now this piece of work is not a purely exploratory piece of writing with theorisation that includes personal narrative. So while I take heart from understanding how other writer's position and privilege their own selves and experiences in their writing, I do need to consider the methodological aspects of the conception and writing of this work. I feel that while pushing at the edges of traditional ethnographic exposition and using creative analytical processes (Richardson and St. Pierre, 2005), I am presenting an ethnography with clear autoethnographic elements, that includes both evocative writing and some analytical theorisation.

I would therefore be reluctant to enforce a dichotomous view of autoethnography as either evocative or analytic. Rather I would side with Williams and Jauhari bin

Zaini (2014) and Sochacka, Guyotte and Walther (2016) in drawing on both perspectives in a complementary fashion.

Tie Me Up, Scotty

So far in this module, the students have tied themselves together with shoelace tethers, and they have tied the lecture theatre up with climbing rope. You might be forgiven for thinking that a secret subtext of this module is about learning how to tie good knots. Perhaps for wilderness survival or seafaring. But actually, lines and knots are incredibly important both in terms of our interactions and in terms of the theme of this chapter, (S)p(l)ace. As yet, we have only thought about issues of place and space in quite simplistic terms. As either static and boundaried, or as rather indeterminate, and perhaps if we follow Ingold's (2011) thinking about space, rather irrelevant.

It is also rather simplistic to think of the classroom in literal terms. It is the actual room where classes occur, but it is also the less literal space within which we as a class operate, identify ourselves and learn together. And it would be pretty naïve to think that this only happens in one geographical location, between the hours of 4-6pm on a Tuesday evening.

Data Vignette 5: Danny's at my door

I am teaching my second year class, in a room in the basement of the Maths building. There is a knock at the door, and I see one of my first year students standing there, trying to get my attention.

> 4.40pm Monday 12th November 2018
>
> Danny: Hello Dr Hauke. I am Danny, one of your students.
>
> Me: Hello, yes, I remember, Danny. We have a class tomorrow. Are you ok?

Danny:	Yes, Dr Hauke. I emailed you today because I have done that work that you asked us to do before tomorrow.
Me:	Yes, Danny, thank you. I saw that email just before I came to teach this class. I haven't had a chance to reply yet…
Danny:	But Dr Hauke, I did the work.
Me:	That's great. Well we will be able to look at it together in class tomorrow, well done.
Danny:	But I emailed you. Because I have done the work…
Me:	Yes, that really is great, Danny. But at the moment I am teaching another class here. I will be able to talk to you tomorrow in our class. Unless you urgently need help with something now?
Danny:	No, Dr Hauke. I will see you tomorrow.

And Danny turned and walked away down the corridor.

Lines and wayfaring

Rather than thinking in terms of a place that has static perimeters, Ingold instead urges us to consider that "lives are led not inside places but through, around, to and from them, from and to places elsewhere" (2011: p148). He describes us as wayfaring – life "unfolds not in places, but along paths" (p148).

And on this Monday evening, Danny's path brings him to the door of my second-year class. A place that he has no logical reason to be in, other than to see me. He is not a maths student, and this classroom is really hard to find. I'm not sure how

Danny would even know that I would be teaching at this moment, let alone where. But most importantly, I am not teaching Danny at this moment. Not in the world of places and spaces. But if we consider Danny as a wayfarer, we might consider that his learning experience moves along his path with him. There are moments when our paths cross, and we learn together, and there are moments when Danny is on his own, in a different place, learning on his own. And for whatever reason, Danny has chosen to make our paths cross on this Monday evening.

Ingold (2011) describes these moments of entanglement as meshwork. Places are like knots along the lines of wayfaring. When two people come together, a knot is made. For example, Ingold would acknowledge that people live together in a house. But not that they live together in that house because of the physical place of the house, the walls and roof that boundary the place. They live together because it is a place where the lines of the inhabitants become entangled, and the inhabitants become tightly knotted together. Life is "delineated by movement, not by the outer limits to movement" (Ingold, 2011: p149).

Ingold (2015) presents the concept of wayfaring and knots as a contrast to imagining the world as constructed from building blocks, chains and containers. While it is possible to 'be' in a world of blocks, chains and containers, it is not possible to 'become'. Knots allow movement and growth. A continual unfolding and entangling of paths.

Knots are hard to define, but Ingold (2015) suggests that a knot is unlike a block in that "the block is explicate, in that each is joined to the other by external contact or adjacency; the order of the knot is implicate, in that the constitutive strands of each knot, as they extend beyond it, are bound into others" (p15). The knot is unlike the chain in that "chains are articulated from rigid elements or links and retain their connections when tension is released [without] memory of their formation. Knots, by contrast, are not articulated and do not connect. They have no links. Nevertheless they retain within their constitution a memory of the process of their formation" (p15). And knots are unlike containers in that "containers have insides and outsides; in the topology of the knot, however, it is impossible to say what is inside or outside.

Rather knots have interstices. Their surfaces do not enclose but lie 'between the lines' of the materials that make them up" (p15).

Data Vignette 6: Half a bottle of white wine

It is the penultimate week, the knowledge bases are complete and today we will be doing some short presentations. The students are assembled in the lecture theatre and I am just about to start the session. Just as I take a deep breath to begin, I catch sight of Danny hurtling down the steep steps towards me.

> 4.01pm Tuesday 4th December 2018
>
> Danny: Dr Hauke!
>
> Me: Hi Danny, we're just about to start… Are you ok?
>
> Danny: Dr Hauke, I've got to tell you…
>
> Me: (slightly irritated)
>
> Danny: Dr Hauke, I'm not going to be any good today, Dr Hauke
>
> Me: (concerned now) Oh, Danny. Are you feeling ok?
>
> Danny: Oh Dr Hauke. I went out last night…
>
> Me: Did you?
>
> Danny: Yes Dr Hauke. So I'm not going to be any good today…
>
> Me: Perhaps you're a bit tired. You'll be fine once we get going…

Danny:	No Dr Hauke, I'm not going to be any good today. I drank half a bottle of white wine. Last night, when I went out.
Me:	Oh, Danny. Are you feeling a little bit worse for wear? Don't worry, you'll be fine, just take it easy.
Danny:	No, Dr Hauke. After that I had a…
Me:	A…
Danny:	I'm really not going to be any good today, Dr Hauke. After the white wine, I had a … (lowers voice) a Jaeger bomb…
Me:	(Dramatic eye roll) Oh Danny, I see. Well, you can come and tell me more about it in a minute, but right now, we'd better get the class started.

Once, again, Danny is seeking an entanglement, forming an extra knot on his path. Partly this knot brings myself and Danny together, but more importantly, it is bringing together Danny as a person with Danny as a student in this class. Danny could have chosen to skip the class if he wasn't feeling well. He could have sat in his seat and felt a bit worse for wear privately. But as this module progresses, the students are being challenged to be themselves, bring their own experiences of the world (mostly related to global issues, but also other personal experiences) and to share these with each other. Value them in each other. And use them to enhance their own understandings of the world, their own engagement with the world.

For Danny, this episode of social drinking, is a big personal moment. It is the first time that he has been out with his friends. Taken a risk, tried some drinks, let go a little. It is exciting, but also scary. And he is looking for meaning in this moment. And in the true spirit of the class, he is bringing this incredibly important moment for him personally

into our shared space. It is a part of his path, a thread in the rope of his life journey, and it accompanies him on his passage through our time together.

From space as absence to space as opportunity

We are reaching the end of our time with these first-year students now. It is always short but sweet (and incredibly hard work). The weeks have flown by, and as Danny takes his seat (finally), we can begin our penultimate class. Today the students will be giving short presentations. Unlike their usual experience of presenting, these presentations will be unprepared and very short. I explain to the students that they will have many opportunities to give planned, perfected presentations. But that is not what I'm looking for. I want to see the students' excitement for something that they've learned. I want to hear their enthusiasm for finding out shining through. I don't care if they can remember all the technical details. I'm not bothered if they can structure a presentation to last a specific length of time. I want to see the students happy and confident to speak. I want them to enthuse me with their own ideas. I want them to feel the joy of sharing.

This usually leads to blank stares and a little panic from the students. So I tell them that we will prepare together. I explain the brief for the presentation. The students will speak for one minute, and should keep speaking until they hear the bell ring. It doesn't matter if they've finished or not, and ideally they should be so excited about what they are talking about, that they are disappointed to stop. The audience should be hanging on their every word. The audience will be made up of two student teams, so no more than twenty students. There is no right or wrong thing to say, there is no right or wrong way to be excited about something, they should just go for it.

I then ask the students what makes a good presentation? How should we mark these presentations? And I put up a blank slide titled 'Presentation Mark Scheme', with five numbered bullets waiting to be filled in.

The first suggestion was made by a student somewhere in the middle, who shouted out 'Passion'. This had become rather a running joke, as every time I recap a previous session I ask the students to run through the features of a Change Maker,

and passion is always the first one they remember. Probably because they always seem to be hungry and that is the answer that is related to candy. But anyway. So whatever I ask, someone always seems to shout out 'passion' and we all laugh. But this time, it is a really helpful suggestion and we have that first on our list. Next up someone suggests 'references', which I think is a bit odd for an oral presentation. However, it is not unworkable, so we agree that the students should acknowledge where they have found out about the thing they are talking about. So we now have passion and references. Next comes 'good, clear speech'. We discuss this quite a lot. Does it mean good English? No. Does it mean speaking completely fluently with no breaks or stammers? No. It means speaking loudly and a little slower than you might think necessary. And it means saying things plainly, as you would if you were chatting with someone. Don't dress things up. Don't use fancy words. Just speak. If you are interested in what you are saying, let it show. If the audience sense your passion, which prompts more laughter, they will forgive the 'way' you speak. They just want to hear from you. They will be with you. That is all we need.

Next up comes confidence, and I sense my opportunity to add a little something of my own. We talk about how to be confident, I tell a slightly ill-judged anecdote about yoga, we laugh (or they laugh at me, I'm not sure which). And we agree to use the 'fake it until you make it' plan. But then I kick on with my pet obsession when it comes to presentations – which is audience behaviour. We always have audience rules, and there is always one aspect of the mark scheme that pertains to audience behaviour. But this time something grabs hold of me, and I decide to run with it.

Data Vignette 7: Tell me what makes a good presentation

Speaking to the whole class during the set up for the presentations

> 4.17pm Tuesday 4th December 2018
>
> Me: You know, where does confidence actually come from?
>
> Freddie: From knowing you can do something?
>
> Me: Maybe. But how do I know I can do something?

Freddie: Because you've done it before?

Me: But how do I know I can do it this time? I've taught loads of classes, but how do I know that right now, this afternoon, I can stand here and talk to all of you (gesturing up the height of the room)?

Silence

Me: Well. I know that I can do it, because you guys are giving me confidence. I'm looking across at you as I speak, and even though it's really awkward when someone looks at you (staring straight at Quentin in the front row), you don't look away.

Awkward laughter

Me: And now look, I just looked at Paige, and she smiled at me. Even though I'm not funny. So Paige has made me feel welcome here, and as though I have a right to try and make bad jokes and talk to you all. And now look…

Looking up towards the back, I see a student gently nod as they listen

Me: … Freddie is nodding. He is validating me. Making me feel all warm inside. He makes me feel that I might be right about something. That I have something useful to say.

At which point the nodding turns into a double thumbs up. And then John, sitting next to Freddie starts nodding. And then the next person. And someone near the front had turned back to look at Freddie and they do a double thumbs up. And as a wave, these gestures ripple through the

whole group, until almost every single student is responding with some gesture. And even when I try to continue talking, the gestures keep coming. I almost can't carry on.

Me: So you see. If you are in the audience, you are responsible for how the presenter feels. It is your job to make them feel welcome. You need to send them little parcels of confidence by not looking away if they catch your eye, smiling, nodding a little. You need to show them you have confidence in them. It is your job. So that is the third point on the mark scheme. What next?

We stumble through the final couple of points, and the students go off to give their presentations. Something has come together. The students are responding as individuals, they know that they have something valuable to contribute, but they are also acting as one. There is an amazing sense that these students, as a class, are also acting as some kind of mega-organism. They are supporting each other (and me), and they feel inspired to do so. The set-up for the presentations has never gone so well.

Space can be warm and fuzzy too

There is something about the negative projection of space, that is at work here. Space is not Ingold's (2011) intangible nothingness now. It is freedom. Liberation. The students are not afraid to take chances, either in private or in front of the group. They are not afraid to join with each other. They are empowered to 'have a go', or take a risk.

Although the students are free to leave after their presentations are completed (they present to PhD students who have been working alongside the undergraduates in their teams, modelling their own advanced learning and research skills), they come back to find me. They want to talk about how their presentations went. They are amazed that they felt confident. They are excited that people liked listening to them. They are proud that they were still talking when the bell rang. They can't wait to try out this new skill they've just learned in another

setting. And yet, all we've really done is talk to each other. Talk in front of each other. Show something of ourselves to each other. Share something that means something.

It is as though we have created a space amongst and between us, where we can do these things. Things that seem very ordinary, but which are the foundations of all the amazing, technical and skilled accomplishments that the students will complete in the weeks, months and years to come. To understand how this sense of space might be at play, it is worth considering the Japanese concept of *Ba*. This is not something that is easily translated to either the English language or a Western context. But broadly, *Ba* represents a space where people can come to know together. It is about knowing, but it is also about collaboration. In the English language, this concept has largely been swept up in business and management speak as something that companies can use to maximise their productivity. However, trying to hold on to the values of *Ba* without that commercialisation might still be of value.

Ba "enables participants to transcend formal organisational boundaries, build caring relationships, establish a sense of purpose, open up limited perspectives and embrace the experience of others" (Nonaka and Zhu, 2012: p264). So while it is about the creation of knowledge and coming to know, it is equally about how that might be done alongside, in the presence of, and collaboratively with, others. It is about more than simple knowledge, and about more than simple collaboration. There is an inherent personhood aspect to this concept that inspires me. And it seems particularly apt in the context of this particular module "*Ba* is where the heterogeneous contexts of the participants intersect to form a larger, richer context from which new knowledge can emerge. The more diverse the participants' original contexts, the more chances new knowledge will be generated through interactions." (Nonaka and Zhu, 2012: p264). The concept challenges us to think about knowledge as a process rather than as a product (Hauke, 2019). "In this sense, *ba* is a process of indwelling in here-and-now situations where participants share here-and-now concerns, exchange here-and-now insights, define and solve here-and-now problems" (Nonaka and Zhu, 2012: p265). It enables us to act in ever

changing situations, so that whatever the here-and-now, we are empowered to thrive.

Back to the future

And so we come to our final session together. And we turn our attention to the future. We have considered various problems in the world, from their historical context (on our timelines) to their most current status, with students looking at our progress in solving them, the latest data and what might be in the pipeline in terms of innovation. This final week represents another design challenge – we would normally create matrices to determine likely and possible futures, and then the students would pick a possible future and map it out on a poster. Our final session would involve us rotating around, reviewing and commenting on the posters. But we can't do that here. And when I was thinking about this session, I suddenly thought about how the seats in the lecture theatre represent points on a multidimensional graph. We could create a giant matrix of likely and possible futures as the final hurrah. But what could the students do first? Could they imagine their own future? And then be plotted onto the matrix by taking a seat 'in' the graph? Once the students were seated (or plotted), how would we know or remember what future each student represented?

I had a plan, but I couldn't tell if it was a good one. It sounded crazy (even to me). Would the students do it? Would they join in? Would they 'get' it?

Data Vignette 8: Future Hats

Speaking to the whole class to set up the final activity.

> 4.05pm Tuesday 11th December 2018
>
> Me: So guys. Today we will be thinking about the future. You've worked in small groups with people you don't know. You've worked in impossibly big groups and achieved the unimaginable. And you've worked closely in groups of ten students for several weeks. What is left? Today, I need you to work in groups of

three. With whoever you like. And you are going to be imagining the future. Well, one specific future. You will come up with a premise for the future. So – for example, in my future, my premise might be that there will be no cancer. And then you will think of three impacts of that premise. So for a world with no cancer, what could be the impacts?

Joanna: Overpopulation? Not enough people would die!

Me: Great. So overpopulation could be one.

Quentin: Mass unemployment of doctors because less people would need treatment…

Me: OK, that might be another. And what about a third?

Danny: Even more disease, because people would live longer and get diseases that we don't know about yet.

Me: OK. Fantastic. So now we have three impacts. So in your team, you would need to represent these three impacts…

A little nervous.

Me: … on Future Hats.

Rustle of interest and people leaning forwards.

Me: I have brought the entire contents of my special filing cabinet…

Gesturing to a massive array of craft materials

> Me: So you have one hour to get into teams, think of a futures premise, devise three impacts and represent them on three Futures Hats. You will then wear your hats, and we'll use the lecture theatre to make you into a human graph of the future. But more about that in a moment. Let's make hats!

I expected this to be a hard sell, but the students seemed to think that making Futures Hats was the most natural and logical way to express their ideas, and I guess, to end this module. The room was a hive of activity for the next hour. And once the hats were completed and all the mess was cleaned up, we were ready to 'plot' our graph. The students gathered on the stairs and at the front, and we strung axes for our graph across the lecture theatre seats. Our X axis was for likeliness of that particular future, and the Y for possibility. And with very little prompting from me, the first group of three students filed forward. They outlined their future, each student described the impact depicted on their hat, there was some discussion and then the students were plotted into the graph by the group (Data Image 15). And as we progressed through, some 'plotted' students got shifted around, until we had every student in the graph.

The hats were amazingly creative, and even the most sceptical, eye-rolling of students had participated and was voluntarily wearing their hat. We spent the final minutes taking team photos and admiring the hats.



Data Image 15: Students in futures hats beginning to be plotted into our 'human graph' (and with added superimposed axes, inset)

Renaturalisation, coloured pigeons and subverting expectation

One of the most common pieces of feedback that we get from students about their experiences on Change Maker modules is that the module was nothing like they were expecting. This year was no different, and in their final learning reflections, many students commented on this aspect of their experience. The reflection is written in a box on the last page of their self assessment (they also self-mark the development of a range of skills encountered during the module – see Appendix 5), prompted by the cue phrase 'Please write a statement about your learning experience on this module'. Some students write about the learning activities, some write about their encounters with other students, specific skills or things we've discussed and some write about the wider context of their learning and how they might use what we have done together to improve their performance on their core degree.

This year, there were a lot of comments about how different this experience was compared to their other learning experiences or to their expectation.

> Outside the box but too much fun :X LOL Main skills developed: research skills, communication with team, organising work and deadlines
> (Henry)

> [Change Makers] is quite a unique course; I have never had a course similar to this one
> (Annabel)

> I found that this [Change Makers module] was really different from any learning opportunity I've had
> (James)

Of course, not being what you expected is not necessarily a positive thing. In fact, it can be incredibly challenging to students. We try to mitigate this by being up front about what can be gained by learning in different ways, by making sure we acknowledge the challenging nature of the experiences and by reflecting on each previous experience to identify what we have learned and how this might be useful in the future. We do also try to spiral our curriculum, even within the space of a single module, so that the students begin with more supported and immediately rewarding activities (even if they are uncomfortable) and then provide additional opportunities to use the same skills, practice advanced tasks and techniques and appreciate their own progress.

> This [Change Maker module] wasn't what I expected. At first I didn't know if it was worth attending, but luckily I kept on trying to make the most out of it. Working in teams on unusual tasks or having to discover a whole lot of infos on a certain topic has made me grow. I had the opportunity to practise my presentation skills, my way of reasoning and all of the aspects of group activities. I would extremely recommend it.
> (Harvey)

> I think I have gained skills by working on an alternate area and worked in unusual situations which allowed self progression
> (Danielle)

This element of 'breaking expectation' is particularly important in our context. Our students have a very intense educational experience in their departments, where many of their classes derive from a limited experiential palette. The students therefore have quite a limited vocabulary and understanding when it comes to the possibilities for learning. Things that defy description or don't fit their expectation are often deliberately overlooked and undervalued. Which is why we explicitly reflect on their learning using photographs of them working. We only hit on this method last year, and it has completely transformed the way that students engage with reflection. Seeing themselves in action is incredibly powerful, and helps them to engage with the reality of their learning experience rather than their (sometimes limited) intellectualised version of that same experience.

So it seems to the students as though we are subverting everything about learning at Imperial. We don't use the lecture theatre for lecturing. We don't even use the seats for sitting or the benches for writing. We use them for making timelines and graphs. And we value the skills the students demonstrate and their individual progress over the work that they 'produce' and an abstract concept of 'success'.

I think that this brings a degree of authenticity to what we are doing. In that stick-of-rock type way, wherever you look in the module or the classroom, we are living by our values. And while you might think – 'but surely you could do this in a less subversive way, surely you could just sit on the seats and use the benches for writing', there is a very important reason for sticking so thoroughly to our metaphorical guns.

I had a fancy (but probably too complicated) way of explaining this, but then I came across an experiment with pigeons that I actually think is a beautiful image that captures my point better than I could say it.

Some artists set (humane) traps in St Mark's Square in Venice to capture pigeons. They then (humanely) dyed the pigeons pretty colours and released them back into the square. Tourists and locals alike were astounded by this influx of beautiful bird life – "this infusion of color lends a new dimension to the familiar experience of an encounter between a human and a bright-colored animal. The pigeon - at best considered an easily ignored carrier of disease and sign of urban cultural malaise - suddenly becomes an animal. The temporary and artificial alteration in the bird's coloring is enough to bring about its renaturalization." (von Bismarck, 2019).

In the same way that subverting the cultural image of the pigeon by making it seem exotic and foreign enabled the public to re-engage with the natural beauty of the pigeon in Venice, the students are empowered to re-engage with their own learning and being at a fundamental level by the wholehearted 'renaturalisation' of their classroom experience.

It's time to go home

As we were packing up, one of the teams of students came over to talk to me. I remembered that these students had been very worried about their presentations the week before, and I hadn't spoken to them since.

Data Vignette 9: What presentation?

A private conversation at the front of the lecture theatre, as the students are packing up and leaving.

> 5.47pm Tuesday 11th December 2018
>
> Me: Hey, how are you feeling? I heard that you gave awesome presentations last week! I am so impressed!
>
> Marylin: How did you know Dr Hauke?
>
> Me: Well, I asked about you. I wanted to make sure that you were comfortable and had a good go at

the presentations. But I needn't have worried about you. You completely nailed it!

Marylin: We didn't think we would be able to do it. But it was just talking, and we wanted to tell people about what we had found out. And then, before we knew it, the bell was ringing.

Me: I knew you could do it!

Marylin: And our group were so lovely, and they all clapped and everything. We all just wanted to hear more about everything.

Me: Well, that is fantastic. You must remember this when you have to do your next presentation.

Marylin: But it was just a small group Dr Hauke. What if there were more people?

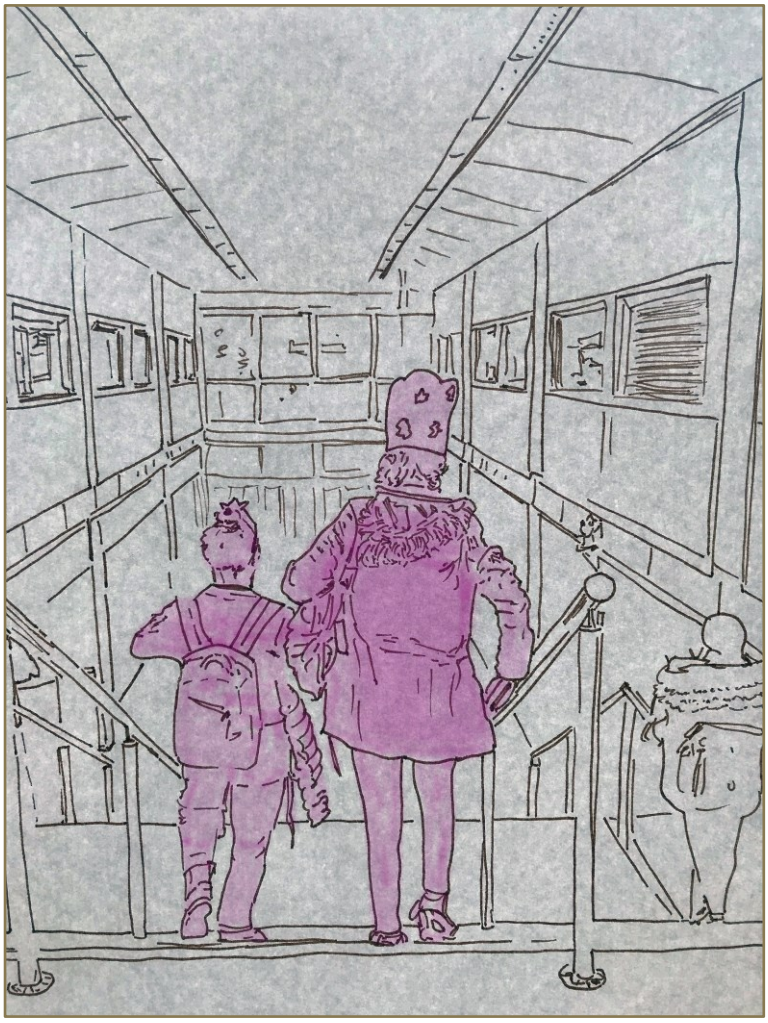
Me: But guys, you just gave another presentation. Didn't you?

Kacy: Did we?

Me: Um, yes! You just presented your hats in front of over one hundred people. With no preparation. And you were all amazing again!

Marylin: Oh my goodness! We did! (giggling) We just did a presentation without even realising it! Can we wear our hats home?

Me: I would be delighted if you wore your beautiful hats home. See you later.



Data Image 16: Marylin and Kacy leaving class wearing their futures hats

And so. It was done. The students' wayfaring paths had brought them into our class, through this place and space, and then taken them off into their futures (wearing their hats).

(Behind the) Time(s)

"Real isn't how you are made" said the Skin Horse. "It's a thing that happens to you […] It doesn't happen all at once […] You become. It takes a long time."

The Velveteen Rabbit (Williams, 2015: p8)

Data Found Poem 4: It's a good shoe

Marcus

Smithson

there was a lot

to encourage you to think outside the box

the idea of 'Liz won't like it'

which I'd love as a movement

it really encouraged you to think in a different way

and that was really actively pushed

so you'd come up with an idea

and then Liz would be like

'meh, beep bip, that's pretty good, is it really you though?'

it's a good shoe, but is it you?

it felt frightening, initially

I was just honest about what I really wanted

the ability to express ourselves

has been

although daunting

really rewarding for me…

I think the 'will Liz like this' kind of thing

for me

has definitely helped

there were times

when I was scared

and having a bit of encouragement

in a risky direction

is quite helpful

A lot of existential baths

(Bang on) time

So we have journeyed through the place and space of our first year classes, and now it is time to meet our second year students. A much smaller class of just sixteen, from a range of life sciences and computing disciplines.

I have always found our second year students the most challenging to teach. Not because they behave badly or are not capable of engaging with the modules. Rather because they seem to be at a unique stage in their university experience that catches them in a state of relief that they have passed their first year, disbelief that they have to go through that whole academic experience again with even more deadlines and increasingly challenging material, and fear about what is to come as they barrel their way towards their final year and a life of work beyond. The students often appear overwhelmingly pressured – as though they have the greatest number of unreasonable deadlines and projects to complete – when objectively this is not the case. Often the students react to this pressure by presenting a face of (false) bravado and ennui. And it is with this fore-knowledge, or rather fore-boding, that I approach these students.

The students are taking one of three modules (Building Happiness, Sustainable Me or A Smart Life) that are co-delivered by the same teacher, in the same room. The modules allow the students to explore one of three concepts (happiness, sustainability or smart living) and apply their understanding of that concept to their own life experience. The students begin by developing a theory that encapsulates their concept, 'testing' their theory by mapping it to their own lives and producing a personal 'footprint' poster and a video diary. The students critique their theory, develop it further and use it to formulate a project that attempts to create a change in their own experience of the concept. The students all work alongside each other, inspiring and challenging each other by sharing their own thoughts and ideas.

These modules are brand new – this will be the first time that they have sprung to life from the single page module specification document that has been scrutinised by boards and committees concerned with learning outcomes and rigour of assessment. It is my job to take these lines of bland text and turn them into engaging

and challenging experiences that will work for this group of sixteen students. I have a planned curriculum and a skeleton schedule of activities, way-points and ambitions. I am thoroughly prepared for what is to come, and yet the least prepared I have ever been. I know what I want to happen, I have plenty of ideas to get us there, but I hold-my-hands-up-absolutely-do-not-know what is about to happen. I'm pretty good with uncertainty and risk taking, but I'm feeling a little trepidation about this roll of the dice. And I don't know whether it is a good omen or bad, but it is also my birthday.

And it is on this day, in our very first class together, that a second theme began to emerge. We were having a discussion about how the module might unfold, what the students' expectations and concerns were about the weeks ahead and how we might exploit the flexibility in the curriculum to make the most of our classes together. And what came out of this discussion were their fears and concerns about time. Planning their time. Not having enough time. Wasting time.

As a teacher, this worry and preoccupation of the students snared my imagination. I could feel the weight of their anxiety threatening to push us out of our shared time together, holding us at the edges of our potential. Perhaps limiting us to only superficial engagement, idle box-ticking and an overly economical approach to our work. This fed into my experience with second year students, where I had previously found them hard to enthuse and made me want to break this curse, once and for all. Perhaps this was what I had been missing all along? Maybe, if I could be creative in our approach to time, if I could challenge the students' perceptions of time, I might be able to get somewhere meaningful with them. I decided there and then, in that first session, that this was an opportunity to be brave. Not normal-for-me-brave, but actual it-could-all-go-terribly-wrong-brave. If I could really listen to the students, if I could understand the barriers between what I wanted for them and what they wanted from me, this module could be bent and moulded to accommodate that.

And I was fully up for that challenge. I might need a few more post it notes. I might need to rip up my (admittedly brief at this point) lesson plans. Move assessments. Reschedule activities. Rethink our time together. But it could be done.

It's all about space time

So now we have two themes. Space and time. Concepts that are as distinct as they are analogous. Whilst four o'clock on a Monday afternoon may provide a time for our second year class, it also creates a space in the student timetable for a particular type of learning to occur. Yet while the physical place of our Huxley 130 classroom provides a space for learning, it does not relate to time. And yet that space within the four walls of our classroom may represent a freedom from judgement or consequence and therefore provide an ideal time to take a risk or try something new. And while we may consider a specific place cognitively or in abstract form, our experience of that place is temporal. It belongs to the moments we spent there, in a fashion reminiscent of Ingold's (2015) knots and wayfaring.

So in one sense, I'm taking a bit of a liberty by discussing space and time separately and insisting that they represent two different themes within the data of this research and story. But on the other hand, space and time give us two complementary (and yes, somewhat overlapping) lenses with which to explore the complexity of what is happening in these classrooms. They allow us to use specific words and language to suggest and explore different types of meaning. To ask different questions and to imagine a multiplicity of understandings.

And bringing together space and time might offer a further conceptual understanding of this experience through Lefebvre's concept of rhythm (2004). He defines rhythm most simply as space, time and energy. We've explored space, we're about to tackle time, and we'll leave energy for our final foray into the story world of the third and fourth year students in the next section.

But is this inclusion (or diversion) of rhythm really necessary? Have we gone a step too far? Perhaps space and time are enough. We don't want to overreach and overcomplicate our delicate thinking and emerging understanding of the classroom experience.

I think the answer to this might lie with Danny. Think back to Danny's interactions with me in the last section – specifically when he came to tell me about his night out with his friends (Data Vignette 6). In the creation of our entanglement, and in Danny's

efforts to engage with me, he uses stilted repetitious phrases. He wants to tell me that he is feeling hungover after a night out drinking alcohol, but he cannot just tell me in continuous speech. He begins "Dr Hauke, I've got to tell you…" before interrupting himself (perhaps in response to my stern expression), and then restarting "Dr Hauke, I'm not going to be any good today". A phrase that he repeats three more times in our brief conversation. Each time Danny introduces a new detail, he restates this phrase to anchor that detail within our conversation. And this repetition creates rhythm in our interaction. If you read our interaction simply and at face value, you might feel frustrated by this hesitancy. You might wonder if I documented it correctly – would anyone really say that same phrase so many times? But when you re-read this conversation and allow yourself to feel the rhythm of the interaction, the repetition takes on new meaning. You feel Danny's need to connect. You feel his embarrassment and simultaneous pride at the story he has to tell. And you feel swept along in this very brief micro-drama. So perhaps the rhythm is important after all.

Feel the rhythm, feel the ride…

Rhythm is both a simple and easy to conceptualise phenomenon with which we are all familiar, and at once a hugely complex and ephemeral idea. As such, I think it provides a way to further our understanding of the experiences being presented here, sustaining the inevitable complexity that this understanding entails. Lefebvre (2004) developed his ideas about rhythm into an analytical tool that he called rhythmanalysis. Initially coined in a different context by Pinheiro dos Santos (1931) and then developed a little further by Gaston Bachelard, "it is really the whole being that is engaged in play. It is in this play, rather than in some form of suffering that the primitive being finds self-awareness, which in the first place is self-confidence." (1964: p28). Bachelard (1964) and Lefebvre (2004) both recognise the importance of self-awareness in the appreciation of rhythm. It is by knowing ourselves (and our own rhythms) that we can be aware of this phenomenon in the world around us. Rhythm is essentially a repeating sequence of some description, a series of recurrences. And we can tell these recurrences apart because they are ever so slightly different. The key to rhythm is repetition with difference. And in order to recognise difference, we need to have an awareness of what this difference relates to (in other words what it

is different from), and this begins, most fundamentally, with the self (Bachelard, 1964).

Lefebvre states that whenever there is a coming together of place, time and energy, rhythm is formed - "this supplies the framework for analyses of the particular, therefore real and concrete cases that feature in music, history and the lives of individuals and groups" (Lefebvre, 2004: p 25). He then (2004: p 19) identifies a range of oppositions which are indispensable in understanding and analysing rhythms:

- Repetition and difference
- Mechanical and organic
- Discovery and creation
- Cyclical and linear
- Continuous and discontinuous
- Quantitative and qualitative

Lefevbre goes on to say that "we know that a rhythm is slow or lively only in relation to other rhythms (often our own: those of our walking, our breathing, our heart). This is the case even though each rhythm has its own and specific measure: speed, frequency, consistency. Spontaneously, each of us has our preferences, references, frequencies; each must appreciate rhythms by referring them to oneself" (Lefebvre, 2004: p 20). It seems that he too is saying that we engage with others, we understand others by first understanding ourselves. We can appreciate different types of rhythm in relation to the rhythms with which we are familiar – and what can be more familiar than our own bodies.

Wisdom in rhythm

In my teaching, I think a lot about the more heuristic or intuitive decisions that I make – in terms of design and of delivery. I don't know what I am basing those choices on – why do I think to do the things I do, say the things I say? Are they particular to me, or would another person in the same situation at that same moment say or do the same thing? When I am presenting at conferences or in meetings, people often say to me 'how did you know that the students would react in that way?' or 'how did you know that it would work'? And I have struggled to answer, other than to say 'I didn't know, I just felt that it would'.

And after another late night of watching something-I-wouldn't-normally-watch-on-TV-when-I-should-have-been-in-bed, I started to make some headway with this problem, and realised that it is intimately connected with what I am trying to explore in this story. I was watching Stewart Copeland's 'Adventures in Music'. Copeland had been attending workshops where the musician Bobby McFerrin was creating improvised vocal music with mixed audiences (many of whom had no musical experience at all). Bobby would hold his arms out, and start to make sounds. He would use his arms to emphasise the rhythm of the sounds he was making, and then widen his arms to gesture to the audience, dip his knees and on the next rhythmic beat, the audience would start singing that same note. And by subtle gestures and facial expressions, he then directed parts of the audience to continue, while other parts started singing new notes and rhythms over the top. And boom – there was a crowd of non-musical strangers singing in harmony.

Stewart was asking Bobby McFerrin how he manages to get complete strangers to sing together – and what's more to improvise with him as 'conductor' – he specifically wanted to find out how Bobby 'knows' that everyone can be musical and will be musical in that particular moment.

"I'm a graduate of MSU … which stands for Making Stuff Up. I learned that by just doing it [...] I just assume that everyone has an inner flame that likes to express itself in some way, some creative way. So I, I have all the confidence in the world that not a single person will fail" (Stewart Copeland's Adventures in Music, 2020: 20:44mins)

And as I watched this, and heard Bobby speaking, I thought about how I 'know' that my students will be able to engage, participate or complete a particular activity. How do I know? Bobby seems to suggest an innate faith in the nature of other people. I would add that this faith stems from taking the risk that first time. Seeing what happened, refining your gestures or approach and then building on that with another experience. And the more times that it works, the more confidence or faith you have. And the more confidence or faith you have, the more the audience, or in my case the students, have faith that they can do what you are asking. And this is a cumulative experience, that comes from time, space and

energy, that comes from repeated moments, that comes from rhythm. A sort of experiential (rhythmic) wisdom.

When I began teaching and creating classes that operated in the ways that we are exploring in this story, the first students I encountered were wholly sceptical. I had to win over each and every student individually with small victories and gradually accumulating pieces of evidence that pointed to the method in my (seeming) madness. But these nuggets of success didn't leave the classroom with the students. They stuck with me, clung to me and could be taken into the next encounter. And when the next time came around, a few students seemed to have faith in what we were doing, and they influenced more to join us and gradually the weight in the room would tip in my favour. Now when I enter the classroom, I'm rather like a scout leader with all my (invisible) badges of experience sewn on my (imaginary) uniform. The students 'see' this experience, and they trust it. I believe in what will happen, I live what will happen and therefore it is believable and live-able for the students. That's not to say that the students don't struggle and don't have to suspend their disbelief to varying degrees, but these struggles and doubts are something that I also have experience of managing. And so we make headway on our journey together.

Lefebvre goes on to say several key things about rhythmanalysis which make me feel that the idea of rhythm is a good fit for this work. He describes the rhythmanalyst as "attentive, but not only to words or pieces of information […] He will listen to the world, and above all to what are disdainfully called noises, which are said without meaning, and to murmurs, full of meaning – and finally he will listen to silences" (Lefebvre, 2004: p 29).

He values the engagement of the researcher and the presence of the researcher in the experience being investigated "how is he to orient his knowledge, forget his past, make himself anew and passive, and not interpret prematurely? The rhythmanalyst will not have these methodological obligations: rendering oneself passive, forgetting one's knowledge, in order to re-present it in its entirety in the interpretation. He listens – and first to his body; he learns rhythm from it, in order consequently to appreciate external rhythms. His body serves him as a metronome" (Lefebvre, 2004: p 29). In other words, experience is a tool that enriches and is necessary for our research, analysis and storytelling. Lefebvre would not be in favour of those "author-evacuated, interpretively omnipotent and cognitively oriented" (Sparkes and Smith, 2012: p55) tellings that we considered previously.

And finally he speaks to the idea of the researcher within looking out (rather than with-out looking in), the idea of indwelling in analysis and the reflective researcher voice in the interpretation "the rhythmanalyst will not be obliged to jump from the inside to the outside of observed bodies; he should come to listen to them as a whole, and unify them by taking his own rhythms as a reference: by integrating the outside with the inside and vice versa." (Lefebvre, 2004: p 30).

Time is (not) of the essence

> *"Unlike the scientist who quests for the instant understanding, the educator has to make an ally of the full stretch of time. He or she needs to develop an appreciation of time's heterogeneous and contradictory nature rather than seeing it simply as the foe of speed and efficiency." (Arcilla, 2017: First page)*

The way we live our lives influences the way that we think about time. Or is this a rather chicken-and-egg-type-error with it actually being the other way around? Well, let's just settle for the compromise that our ideas about time and the way we live our lives are intricately and inextricably interwoven. We can consider time as being driven by external forces – such as the never-ending cycle of light and darkness that frames our daily existence or we might consider it as being a more ephemeral and experiential phenomenon, characterised by our dynamic and ever-changing experiences of time in our own lives and in society (Ricoeur, 1985).

Let's begin with the more tangible and seemingly objective idea that time is defined by external, physical forces – such as the rotation of the planet earth in space, and its passage (on a slightly wonky orbit) around the sun giving us day and night, and a year full of seasons. Both these phenomena are characterised by repetition. We might represent the cycle of day and night and therefore the passage of time as in Figure 19 below.

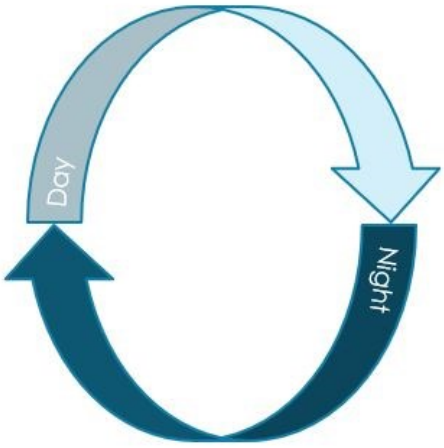


Figure 19: The passage of time represented as a cycle

We endlessly circle this circle. Day after day. Or do we? This image might be helpful to us in understanding how our lives are divided and demarcated by this objective, physical, repeating change in the world. The cycle of day and night is beyond our control or influence, but has an undeniable shaping effect on our existence. However, this representation rather assumes that each passage of day and night is identical to the last. Now, this might hold some truth if we were considering the night and day cycle as a social construction, but we're trying to begin with the objective here. And objectively, this isn't the case. There are both quantitative and qualitative differences to the sequential days and nights. As the seasons progress the hours of daylight and darkness gradually ebb and flow. Some nights are brightly lit by moonlight, while others are inky and dense. So while the 'operation' of day and night as a socially constructed phenomenon might be the same (we get out of bed, go to work and perhaps eat our meals at the same 'time' of day), the physical reality of the dawning of light and the setting of the sun varies throughout the year. And perhaps, à la Lefebvre (2004), it is this variation and difference that brings life and awareness to this daily baseline rhythm of our lives.

So, given that we have established that even our most basic and objective marker of time has variation, perhaps representing the passage of time as a cycle is a mistake. Perhaps we should consider the passage of time as a wave form (Figure 20). We can then capture this variation, while still appreciating the repetition and rhythm.

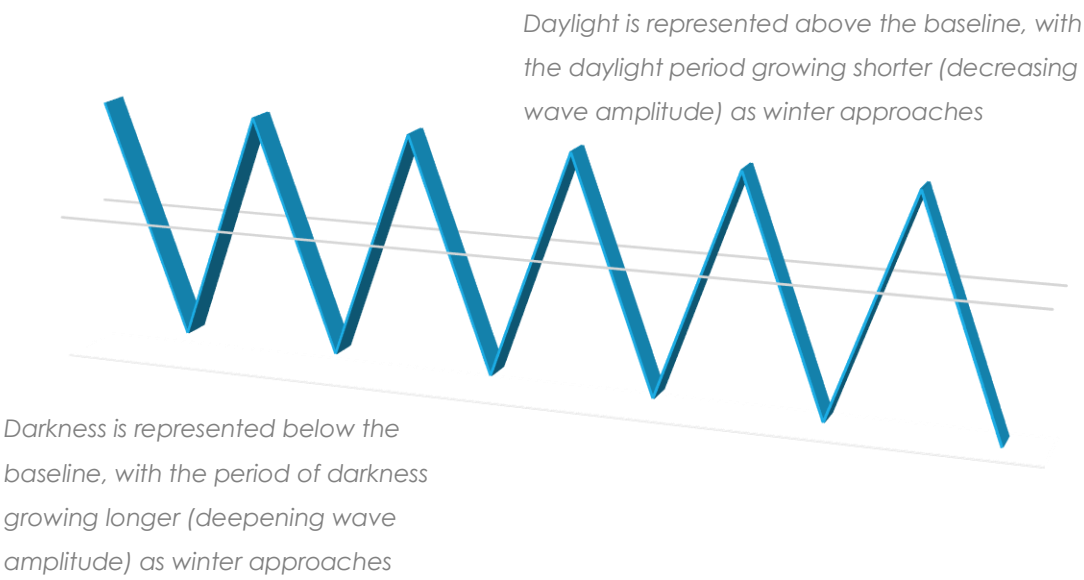


Figure 20: The passage of time represented as a wave form

But maybe this too, is a reductive simplification. Maybe it is the oppositions of the cyclical and the linear (Lefebvre, 2004), the quantitative and qualitative, that make this daily rhythm come to life for us. It is in the opposition that time and rhythm make themselves known.

Don't make waves…

So how might this play out in the classroom? Well on this first day together, on my thirty-ninth circle around the sun, it became clear that these students were viewing our time together as a series of identical two hour long cycles. They were talking about how many hours we would spend on different elements of the module. How many hours each assignment would take. How many hours of group work would be needed. And they were calculating the 'value' of this module within their busy schedule of disciplinary learning.

Data Vignette 10: What is it worth?

Whole class discussion to set up the timeline and assessments for the module.

4.40pm Monday 8th October 2018

Me: So in this module, we have four assessments. You will complete the first two assignments during the autumn term – although, they're really linked together and you'll work on them both at the same time, so it really will only feel like one assignment, and then two assignments in the spring term…

Lina: When exactly are they?

Me: Well, we're going to discuss that in a moment. We're going to look at all of our timetables, think about all our other deadlines, and work out when would be the best time to schedule the deadlines for this module. Remember – everything in this module is going to be decided by us thinking things through together.

Lina: Oh OK. It's just that I need to know how many hours I have for the assessment.

Me: What do you mean? We'll be doing work together in class, and that will help you begin your assignment. Then I will make sure that you have plenty of time to complete the assignment before the deadline. We're not up against it in terms of fitting the assignments in, I just want to make sure that the timing of the deadlines is as helpful as possible to as many of us as possible.

Lina: Yes, but I need to know about the hours. Because I need to know what grade I will be able to get, so that I can work out the weighting for my degree and see if it is worth doing this module or not.

Me: But what does the number of hours, the weighting and the grade have to do with whether you should take the module (rolling eyes)… I mean, I know you'll worry about your grade. Everyone worries about their grade. All I can tell you is that if you take this module, we will work very hard together, I will look out for you, keep you on track and you will have the opportunity to get the best grade that you are capable of.

Lina: Yes, but if a distinction is going to take say ten hours on a day when I only have six hours, then I should do something else. Something where I can get a distinction with six hours.

Me: I don't think it works like that. You will get the grade that you deserve for the work that you submit. It won't be determined by the hours that you put into the work.

Lina: Yes, but the more time you spend, the more things you learn, the better grade you get.

Me: This module doesn't work like that. You're not learning individual things. You're working towards submitting thoughtful, well put together pieces of work. That is what will get you good grades.

> Lina: So no matter how many hours I put in, I won't be able to know what grade I will get at the end? That's not fair. How do you know what grade to give me? It's just made up then…

It appears that Lina makes a concrete link between hours of effort and her final grade. It might seem like Lina is viewing her educational experience as a transaction – with hours spent equalling grades received. And we've mentioned previously that this 'transactional' view of education is rather akin to Paolo Freire's 'banking' education analogy (1970). However, there might be another way to understand this. For Lina, time has become the 'currency' of her educational experience and success. Not in a commercialised, mercenary sense that reduces the value of the experience of time. But rather in a way that actually reifies that value. Historically speaking, in ancient civilisations, currencies were formed of the most useful and precious commodities – livestock, plants, shells and later rare metals (O'Sullivan and Sheffrin, 2003). And perhaps in the civilisation of Imperial College, time is that most rarified of commodities. In the fast-paced, competitive environment in which the students are immersed, time is elevated to such a position of power, rarity and value, that it is time committed rather than ability, engagement or achievement that determines your deservedness for a particular grade.

This discussion went on for quite some time, continued in the corridor after this class and then resumed many weeks later following the feedback session after the first assignment was graded. All feedback is presented in the students' feedback diary - my feedback is documented against the mark scheme and then the students are asked to reflect on what skills they used to complete the assignment, what went well, anything they want to improve in the future, any questions they have or further feedback they would like and then finally comment about the experience of completing the assignment.

In that final comment, Lina wrote

> I personally love this course, because it makes me think in a completely different way, but I would enjoy it even more if I would not have to "fight" for a good mark this much... What I mean is that now, having put a healthy amount of hours for both assignments, I got 62-65% (which I personally don't see as excellent grades), this means that if I want to have an excellent grade I will have to put in an unhealthy amount of hours, which I am not ready to do. […] I would love to discuss this [with you].

We did indeed have a lengthy discussion about this. We tried to unpick the things that Lina had done well and those things that were not done so well, and separate these from the actual time spent completing the assignment. It became clear that there had been moments during the process of completing the assignment when Lina could have accessed formative feedback that might have enabled her to achieve a better grade without spending more 'time' working.

We agreed that completing an assignment is a 'conversation' between the teacher and the student. Sometimes that conversation is simply the opening statement of the assignment brief, the response of the assignment being submitted and then the closing statement of the teacher's grade. However, sometimes there is space for that conversation to go rather differently. We explored how our assignments together could work – how the conversation could be back and forward between us throughout the 'time' spent working, and how this could be used to side-step bad choices, long winding diversions and wasted effort, actually decreasing the time needed to complete the assignment successfully. We discussed how this conversation could be used to improve the 'quality' of the time being devoted to the work. And we promised each other that we would have the chattiest, most involved, most intense conversation possible the next time around.

But we're getting ahead of ourselves now. Let's get back to those first few sessions and how we began our time together.

X marks the spot

So as I've already mentioned, this first session of the year involved some ice-breaking activities where the students discussed their hopes and dreads for the module. We discussed the parameters of the module – what we could and could not investigate. We talked about how we would work together, look after each other and share our experiences together. And we began our exploration of the key concepts of happiness, sustainability and smart living.

We were lucky to have a lecture theatre with an enormous white board, so we divided it into three areas, and the students began writing up every thought, idea or controversy relating to those three concepts as giant mind maps. The maps were intentionally disorganised, the students were clambering over each other, reaching past each other and wriggling around each other to write their thoughts up. They began with the concept that they were individually studying, and then rotated through the other two concepts, adding their ideas in the gaps. By the end of twenty minutes, there was no white space left. The board was replete with all the material we would need to inspire this twenty week journey.

The students then divided into three teams, based on their chosen concept, and I asked them to create a 'concept map' (Novak and Musonda, 1991) of happiness, sustainability or smart living, using the ideas on the board for inspiration. The map should be drawn on A3 paper, it should be iterative (they should keep refining their map, re-drawing it to organise as many of the ideas relating to their concept as possible into one map), and it should organise the related ideas from the most generalisable at one edge of the page, to the most specific and idiosyncratic at the other. This would be a stepping stone between the swirling mass of all their best ideas, and writing a theoretical representation of their concept that would inform their further work. They had one hour left of class time, and the maps could be completed the following week.

I let the students settle in their groups for a while, before circulating to see how they were getting on. As I went around, one team were discussing heatedly, but had nothing on paper. They didn't want to commit any marks or words to the paper until they could plan how the entire map would appear. I explained that I had brought

plenty of paper as this should be an iterative process, but they could not be persuaded to produce any interim, imperfect version of their map. To be fair, their concept was sustainability, and perhaps I should have thought of a more sustainable way for them to work, rather than ripping through a stack of paper that would then only be thrown away (or recycled).

The 'smart living' team had finished their map. It contained just five or six ideas. This was not the concept map that I had in mind.

Data Vignette 11: There just isn't time

Discussion with the smart living team.

> 5.35pm Monday 8th October 2018
>
> Me: I really like what you've done so far, but what about all the ideas that you haven't included here? How can we fit them in?
>
> Leon: Oh, they won't really fit, so we won't use those other ideas. It's fine.
>
> Me: But that's the whole point. This map helps you to organise *all* your ideas so that you can make sense of how they contribute to smart living. It's supposed to be a bit of a messy process – you just need to keep working on it, redrawing your map to include more and more ideas…
>
> Leon: No, it won't work. It took us ages to get these ideas to fit together. We don't want to talk about it anymore. It's too frustrating. And anyway, we will not have time to finish it if we keep changing things.

> Me: But you've still got about twenty minutes left today and then some more time next week to make this map even better…
>
> Leon: No, we don't want to waste more time on this. We can get ahead next week if we just leave this now.

No matter how I tried to convince these students, I couldn't get the first group to commit any ideas at all to paper, and this second group would not spend any more time developing their basic concept map further. My frustrations were partly about the loss of value from this task. I knew that creating these maps was a critical stepping stone to the work that would follow. But I was also feeling that the students were creating barriers to their progress. They were limiting their own thinking and development. Perhaps they just weren't interested in this specific task, but it felt more related to this ongoing issue of time.

In this brief conversation with the smart living team, we begin to see evidence of an internally driven sense of time – that more ephemeral and experiential notion of time that Ricoeur alluded to (1985). This subjective, lived time relies on our experience of time in the present, framed by our experience of time in the past and our expectation of time in the future (Chenet, 2000; Alhadeff-Jones, 2017). Augustine (1st century/1961) rather neatly described these three stages of temporal awareness as "memory" (the past experience of time) (p269), "consideration" (present experience of time) (p269) and "expectation" (future experience of time) (p269).

We see Leon referencing his 'memory' of time in the past as he states "it took us ages to get these ideas to fit together", his 'consideration' of the present as he states "We don't want to talk about it anymore. It's too frustrating" and his 'expectation' of the future as he states "we will not have time to finish it if we keep changing things". Their internal sense of time was preventing this team from digging in to the task, and engaging fully with their concept.

I went away from this session rather deflated. My premonitions of having difficulty engaging with these second year students were coming true. This had seemed a

very simple task to me, so why couldn't I encourage the students to complete it? Perhaps it was too simple. But there were certainly three issues that I could tackle. I could attempt to subvert their perfectionist tendencies by taking the task off a single sheet of paper. I could make the task more sustainable by designing some form of 'amendable' product that could be changed and refined indefinitely. And indefinitely? That gave me hope that I could change our collective internal experience of time in these sessions.

It's time to go loco

For the next session, I prepared three file boxes – one for each team. Each box contained marker pens, string, pipe cleaners, scissors, sticky tape, glue, blue tack, small garden canes and – hours later – lots of individually cut small pieces of card.

I was very nervous arriving at the second class. I had an idea, but even to me it sounded a little crazy. It was all going to depend on whether I could get the students on board with it. And I had zero faith in my ability to do that. But in for a penny…

Data Vignette 12: We're making concept … mobiles!

Speaking to the whole class to set up the mobiles task.

> 4.05pm Monday 15th October 2018
>
> Me: So today, we were going to be finishing our concept maps. But actually, I've changed the plans a little. Well quite a bit. You see,
>
> (holding up the incomplete and blank concept maps from the previous week)
>
> Me: These just are not cutting it…
>
> (disappointed and horrified faces)
>
> Me: But not because you did anything wrong. I got it wrong. I thought this would be a quick task

that would lead us on to the next part of writing our own theories. But I was wrong. I was wrong that this was a quick task. I didn't realise how important it would be. And I was wrong to ask you to do it on paper. It wasn't working for you, and it wasn't working for me. So what do you do when something goes wrong? You rethink. You make a change. And you try again. So today, we will be making concept mobiles instead of concept maps.

(opening up one of the boxes)

Me: Each team has a box. And in your box is everything you need to make a concept mobile. You need to include every single idea that you have about your concept in your mobile. And you do that by writing one idea on each piece of card. You can then construct your mobile, starting with the most generalisable ideas near the top, and those specific ideas near the bottom. You join your idea cards together with string. And when you need to incorporate new ideas, you can cut and re-tie the string. Indefinitely. There are no limits to this task. And I mean that literally. We are not finishing this task today. Or even next week. We will keep working on these mobiles until I say that they are finished. And when they are finished we will move on to the next part of the module. The only rule, is that the mobile must collapse or fold back into the box at the end of each session without breaking. Then at the start of the next session, you can lift it back out and carry on. But it must fit in the box with the lid closed. OK?

Martha: But what if we run out of time?

Me: There is no time to run out of. This is the single most important thing that you need to be doing in this module this term.

Martha: But there are assessments and deadlines! What if we are still working on these mobiles and we run out of time!!

Me: I need you to trust me. I am the teacher. It is my responsibility to organise our time together and our work. I will keep my eye on the time. That is my job. I will make sure that we have enough time to do everything else that we need to do. Once we have finished making our mobiles, we will talk about what comes next. We will design the assignment together, we will agree the deadline, and then we will work on that. But for now, you just need to work in your teams. Discuss your ideas. Make your mobiles. Re-make your mobiles. Until I say stop.

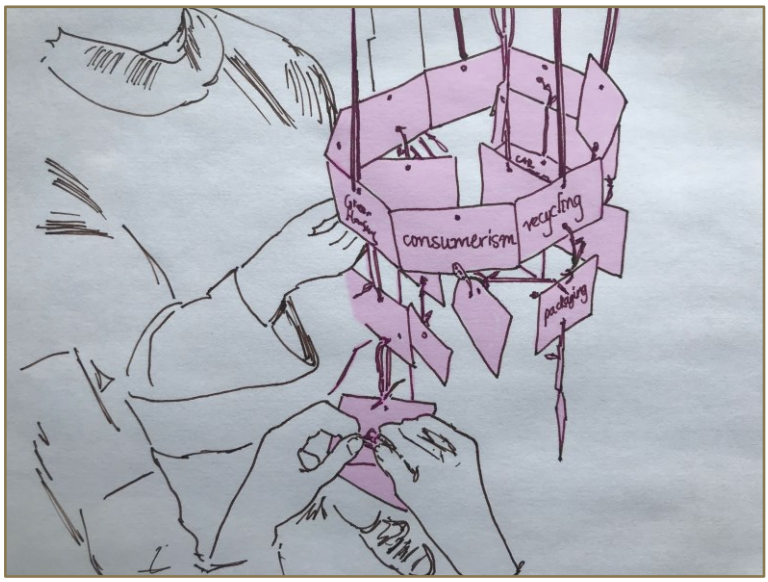
Martha: Wow. That is like, wow. Shall we start now?

And as if it was the most obvious and natural thing in the world, each team took their box and set to work making mobiles. There was a sense of release and relaxation in the room, and before my eyes, three mobiles began to take shape. Well. Sort of.

The sustainability group immediately set to work. They labelled up all their cards, and laid them out, beginning to organise them spatially (Data Image 17), before stringing them together (Data Image 18).

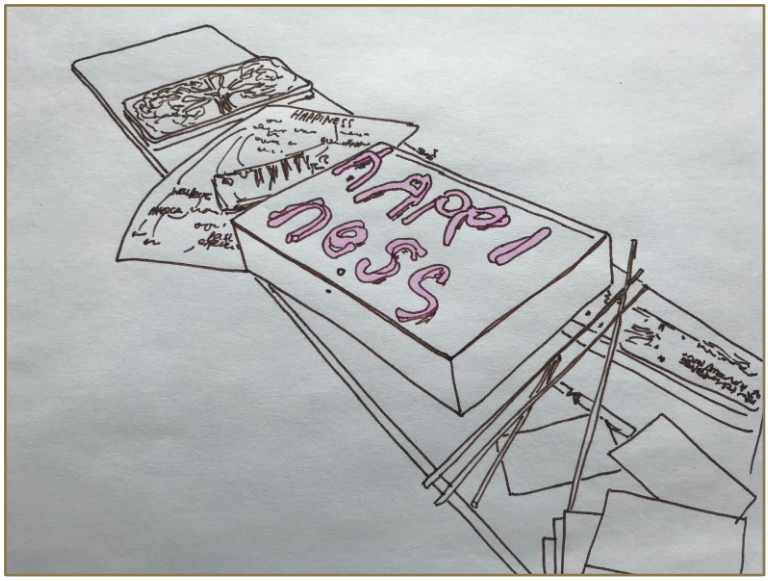


Data Image 17: The sustainability team organising their idea cards



Data Image 18: The sustainability mobile beginning to take shape

The happiness team were a little slower off the mark. They spent the whole session decorating their box, and figuring out how to write 'happiness' on the lid in pipe cleaners (Data Image 19).



Data Image 19: Writing happiness in pipe cleaners

It was very tempting to be annoyed by this, to see this as the students exploiting the timeless nature of the task to actually waste time. But turning my full awareness to this group, I could see how important this seemingly pointless activity was. The team were collaborating and cooperating. Every team member was involved in this seemingly ridiculous operation to stick pipe cleaners to the lid of the box. Lots of discussion was happening while they engineered their decoration, and some of it was even related to their concept. But I needed to allow the students to proceed at their own pace. To find their own pace. And if that meant spending (rather a lot of) time on their box, then so be it. There would be a moment when gentle chivvying might be in order, but as long as no one was worrying about time, this seemed like a gentle victory for the moment.

Thinking inside the box

And actually, this naming and marking of their box turned out to be very important. In creating the concept mobiles task, I had (partly purposely and partly unwittingly) contravened the unspoken rules of engagement between students and teachers, and students and their learning. Undergraduate study at university, and particularly at Imperial College, represents a period of intense learning and activity. There is so much to be packed into this brief period of the students' lives, that much of it happens automatically and without explicit thought and attention. Partly we can understand this through educational ideas like cognitive load theory (Sweller, 1988)

and partly through a more sociological understanding of the university as an institution (Goffman, 1961).

Let's begin with cognitive load theory. Formalised learning, such as that at undergraduate level presents many challenges to students. Some of these are related to the complexity of the material the student is engaging with, some to the manner in which they are able to access the material and some to what they are required to do with it. In order to maximise the learning potential of a group of students, it is commonly held that there are a number of areas of 'good practice' that prevent the students becoming overloaded. For example, setting a clear assignment brief that describes what is required of the students and limits their efforts in terms of a word count or deadline. Another might include providing easy access to the required learning material (such as providing set readings) so that the students do not additionally need to expend 'learning energy' finding their own reading. These practices then free up students' limited learning resource to focus on the 'difficult' and 'skilled' mastery of complex ideas. And this is, on the whole, a very sensible idea.

However. Imagine if every single aspect of an educational programme followed these same rules of engagement. If every avoidably challenging part of a learning experience was attenuated in order to leave the students more able to engage with complex and technical material. How would the students ever gain mastery of those more basic elements of learning? Such as formulating good questions; researching and finding their own information, readings and evidence and evaluating the reliability and usefulness of that material; determining how long to spend on a task; knowing when enough is enough; identifying opportunities to ask for help, support or guidance. Skills that enable students to manage their own cognitive load.

And that is where I have an issue with cognitive load theory. Not with the theory itself, but how it is applied. I'm all for minimising cognitive load in some areas to privilege specific types of learning. As long as it is applied variably and thoughtfully. So that all elements of the process of learning are privileged at some point – from those that might seem basic and unimportant in the context of disciplinary learning,

to those that are highly specialised. And that is why, in my role and context at Imperial College, I never write an essay question. I never provide set readings. I rarely set word or time limits on tasks (some deadlines are unavoidable, but I have my ways of encouraging students to engage with deadlines in different ways).

And in this context, I am very happy to increase the cognitive load by making the task open-ended and by changing the parameters of the task as we proceed. The students are negotiating different types of decisions, are experiencing different types of emotions and stressors by being asked to approach their learning in a different way to what may be considered the accepted 'norm'. I equally take care to reduce the cognitive load in other areas of the learning. For example, the students are not expected to grapple with any fixed degree of complexity within their understanding of their chosen concept. They start from what they know, read a little, discuss a lot and see where they can get to in their thinking.

The other type of unspoken rules that might be broken through this type of work relate to the university as an institution. Goffman (1961) talks about 'total institutions' as being places where "a number of like-situated individuals, cut off from the wider society for an appreciable period of time, together lead an enclosed, formally administered round of life" (p11). Further that in modern society, "the individual tends to sleep, play and work in different places, with different co-participants, under different authorities, and without an overall rational plan" (p17). The institution disrupts this, encompassing a certain population within itself for a specific purpose – and in this case, an undergraduate education. Within this institution, there is a marked difference between 'staff' (teachers, administrators and managers) and those that are employed in that institution professionally (perhaps in this case researchers), and the more captive and segregated population of 'inmates' (in this case the students). Of course, although Goffman is talking about many different types of institution, he is basing his analysis around the asylum, hence his terminology. However, the points that he makes are equally valid to the educational institution such as the university. The 'staff' are contracted to provide a service in return for a wage. They work fixed hours, and outside those hours are free to engage with different sectors of society, often undertaking social and leisure activities with people outside the institution. Outside their eight hour working day, they are fully

integrated into wider society, with responsibilities across a range of realms. The 'inmates' in contrast, tend to live, work and play within the institution (even if our students live off campus, for the most part they live in student halls or student accommodation sourced through the university). They work with each other. They socialise with each other. They eat and drink with each other. They spend the entire twenty-four hour period within the limits of their institution (if not physically, then at least metaphorically). Higher education is often viewed as a temporary release from the obligations of societal living – students are freed from social responsibility, to focus on their studies. However, this freedom actually entails a curtailment of other freedoms, and their actions and activities are directed and controlled by the organisation. And this distinction creates an inevitable barrier between these two populations. Between the staff and the inmates, the teachers and the students. Teachers are supposed to direct, manage and control. Students are supposed to follow, learn and obey. Well maybe that is taking it a bit far, but you get my drift.

So how does this relate to the concept mobiles? Well, as a teacher, I have let the students know that I have changed my mind about what we are doing. I have let them know that I was mistaken in my initial plan, and that I am taking responsibility for that error. I have given them an unboundaried task to complete. There is no end-point to this task – either in terms of the work that needs to be completed or in terms of the time that can be spent completing it. In one sense I have decreased my power as the teacher, liberating the students from these imposed boundaries, but in the other, I have taken an omnipotent position, increasing my power be nominating myself as the only person who can say when the task is complete. I have really muddied the institutional water.

And so to the boxes. Well, in disrupting the boundaries of the learning task, and disrupting the boundaries of the relationship between the teacher and student, I have put the students in a state of free-fall. This could be highly anxiety-provoking.

Some initial resistance to this task would be understandable. Anzaldúa (2015: p2) describes a state of wilful disengagement or wilful ignorance (desconocimientos) that we use to distance ourselves from knowledge, ideas and experience in unfamiliar settings. To keep ourselves unaccountable. And thanks to my breaking us

out of the rules and values of the asylum, the students might not want to take personal responsibility for what is about to unfold.

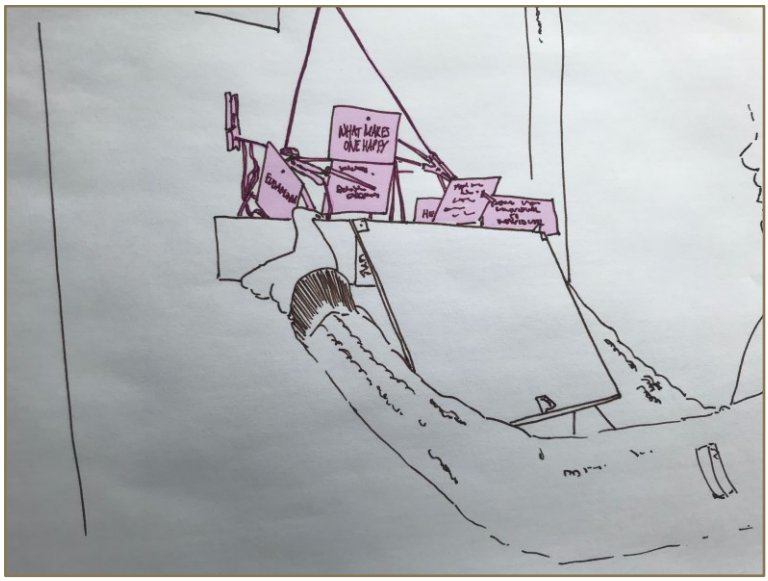
The students respond by engaging with the physicality of the task to appease their need to make 'effort'. They have 'messed about' and pushed back against the lack of limits by decorating their boxes and completing ancillary tasks that are not related to the actual creation of the mobiles. But as the sessions proceed, they settle into this new rhythm. They arrive, they catch up, they retrieve their boxes, they hang their mobiles, they cut them up, they add new ideas, they restructure, they discuss, they look at the other mobiles, they talk to me about things related to the task in hand and things not at all related to the task in hand. But we progress in some shape or form. And the boxes help with that.

These file boxes provide literal and metaphorical containers for the task. They hold all the tools for the task, and store the mobiles between sessions. They also hold the students' anxieties about the task. About time. About themselves and their participation in this module. And possibly about me.

Each week, I struggle from my office to the classroom carrying these boxes. Up stairs, down stairs, along narrow corridors, round crowded tight corners, through impossible-to-hold-open-with-your-foot doorways. And increasingly, the students have started hovering outside my office before class (which is nowhere near the classroom). And following behind and beside me in some sort of procession. But no one offers to help with the boxes. They chatter away, empty handed, while I struggle. They don't open the doors. And they don't help carry the boxes. The same thing happens at the end of class. The procession recommences in reverse. And still no one helps. It is somehow my role to convey these boxes. To distribute them and collect them up. To keep them safe between sessions. And one week, as I was struggling along, the second 's' of happiness, somehow got knocked off the happiness box somewhere along the way. It was lost. The students were upset. And I apologised profusely. Repeatedly. For many weeks in a row.

As well as compensating for the eroded boundaries of this task, the boxes acted somewhat as transitional objects (Winnicott, 1971). Their boundaried form, again

both literally and metaphorically, provided the students with the comfort they were missing during this learning activity. They also became an extension of me as the teacher, of the teacher's role. Where I had been lacking in providing limits for this task, the boxes provided limits. The rules of engagement with the boxes (the mobile must fit back in the box each week and the lid must close properly) became sacred. The engineering required to get the mobiles to collapse back into the boxes neatly was considered at every step. And the moments at the beginning of each class, where one student would take the box, the others would gather around and then mobile would be drawn up out of the box were almost reverential (Data Image 20).



Data Image 20: The hanging of the mobile from the box at the start of class

The mobiles task was drawn to a close rather arbitrarily in the end. The students were still working on them every week, but we did really need to move on to beginning our first assignments. So I let the students know that I would continue bringing the boxes to class, in case they had time and wanted to review or continue amending their mobiles. It was fascinating to see the students grappling with what on the face of it was an unfinished task, but a task that had served its purpose. Every student came away from that seemingly incomplete experience with a substantial and robust mental framework by which to organise their thinking about their concept, and they were able to use this successfully in the subsequent tasks. The students didn't need to finish the mobiles, the mobiles had already finished with the students.

Several weeks later, I was still apologising about the missing 's', when Lucy left her bag open on the desk in front of her. Sitting in the top of her bag was a pipe cleaner, shaped into an 's', with bits of sticky tape and blue tack still clinging to it. We both looked at it at the same moment, and then she looked me in the eye and said "I picked it up when you dropped it, I've been keeping it safe". I don't know why she didn't stick it back on the box, or let me know that she had found it. It was part of the mystery of the boxes.

There's (no) time (to waste)

Moving out of the concept mobiles activity and into our first set of assignments, there was a palpable time-related anxiety re-emerging, but perhaps this time around tempered by a sense of the guilty pleasure of having indulged in time. Spent time together, wondering and thinking.

We discussed the assignments as a class – we would be creating a footprint poster that expressed our theoretical conception of happiness, sustainability or smart living (informed by the concept mobiles), and mapped a 'footprint' of this concept in our lives. This would be accompanied by a video diary, charting our encounters with the concept in a single day of our lives. The poster would be hand made and entirely produced during class time, and the video created during private study time. We co-wrote a brief and a set of marking criteria and the students got stuck into a big pile of card and craft materials. Well, some of the students did.

The students who had chosen to study smart living huddled in one corner of the classroom and were in furious discussion about the tasks ahead.

Mutiny in the classroom

Eventually, Leon broke away from the smart living students and came to speak to me.

Data Vignette 13: It just won't work for us.

Private conversation with Leon, at the front of the class.

4.55pm Monday 5th November 2018

Leon: Sorry, I just need to say that we have talked about it, and this assignment won't work for us. It might work for happiness or sustainability, but it doesn't work for smart living. We don't want to do it. I'm sorry.

Me: Don't be sorry, tell me more about what isn't working. We can figure it out together.

Leon: Well, we don't think that smart living is just about one person, and we were thinking that we should look at different cities and think about smart cities too. So a personal footprint doesn't seem the right thing to do.

Me: OK, well how about you create a smart city footprint poster – you could each pick a different city, and then make a video diary that examines if and how you come into contact with any of the smart processes in your example city, in your daily experience here in London. Would that work?

Leon: I don't know. It just doesn't seem right…

Me: Well, go and discuss it with the others, and come up with a proposal for me. If you can redesign the assignment so that it works for you, we'll check that it is fair and that the other students agree that it is fair, and then you can go ahead with an assignment that you think does work. Would that be OK?

Leon: OK. We'll try that.

Leon went back to the group, and they re-entered into heated discussions. I dropped in on them several times in the next hour, listened to their objections, made more suggestions and encouraged them to be really honest about what they wanted. Ten minutes before the end of the class, I went back over to them to hear their final ideas.

Data Vignette 14: We just wasted all that time!

Discussion with smart living team about their assignment.

5.50pm Monday 5th November 2018

Me: Right, so what have we come up with?

Leon: I'm sorry, I just don't think we know what to do.

Me: Well tell me what you've discussed, what is still worrying you, and then we can see where we are.

Diego: Well, some of us think we should do the example smart city posters, and some of us think we should do the personal footprints.

Elijah: I really want to do the personal footprint poster. I've got lots of cool ideas, and it would be better for me.

Diego: But it seems a shame not to even think about smart cities…

Me: What about if you expressed your theoretical ideas in terms of an example smart city, and

then included your own personal footprint. Would that work?

Diego: I don't know…

Leon: I think we should just do the personal footprints. It would work better.

Diego: But that's what we didn't want to do. That's what we've been discussing for this whole hour…

Me: It's ok to change your mind. Diego, do you think you could make a personal footprint?

Diego: Yes, I guess so.

Me: Would everyone be happy to make a personal footprint poster? If you could refer to the idea of a smart city in your theory?

Murmurs and nods of assent.

Me: Great, so would that be ok then? Let's all do personal footprint posters.

Leon: Wow, we've just wasted all that time. All the others have made half their posters already, and we're still sitting here talking about whether we want to make them or not. What are we going to do? This was a big mistake, we should have just got on with the posters…

Me: I don't think you've wasted any time. In fact, you might even be ahead of the other students. You've allowed yourselves the time to really understand the assignment brief. You've worked through your concerns together, and you're now

much further along in terms of thinking about what the assignment is asking from you. Maybe some of the other students will come back next week and need to start again, or will begin worrying about the meaning of their posters. You've got all that thinking done ahead of cutting up my massive pile of card. I'm really pleased that you had this discussion.

Leon: But we ended up deciding to do the thing that we didn't want to do in the first place.

Me: Yes, but you've decided to do it. That's massive. You're not doing it because I told you to and then resenting the idea in secret. You've worked through all your objections, you've tried out different ideas. And you've chosen this as the best option.

Sighs.

Me: Well, maybe you've chosen this as the least bad option…

Giggles

Me: … but I'm hanging on to the idea that you've chosen it. Go home, forget about it for a few days, and come back next week ready to make your posters.

It always works out in the end

So far, we've considered time as a cycle, demarcated by physical phenomena such as the rising and setting sun. We considered that this rather implied that each period of time was identical to the last, something that simply isn't true. So then we

explored expressing time as a waveform, that could represent those variations in our experience of time alongside our awareness of the passing of time. However, it does rather imply a linearity to time. Well what's wrong with that? We move from the past, through the present and into the future, surely? We can't go back to the past. We can't relive bygone moments, with or without changing the course of history. But is this how experience works? Is our experience linear?

I want to revisit two points that we explored in Method(ish) – relating to experience and our creation of meaning. Firstly, the importance of context – and not just the context of the actual moment of the experience, but our own personal context, or "experiential luggage" as Rudie (1994: p28) described it. Secondly, if you remember, Rudie (1994) suggested that in making meaning from experience, we move from an 'imprint' of an experience (non-articulate, simple representation), via our own observation of that experience (we begin to articulate the experience to ourselves) to a period of symbolisation and metaphorization, when we try out multiple understandings of that experience. Then we look for confirmatory experience or opinion through communicating this experience to others (articulation) before rendering the experience as personal 'fact' (objectification). Now while there may be travel backwards and forwards between these stages, this is a linear process – taking us from experience to meaning. And something that occurred towards the end of term began to make me think that this might be too simplistic. And it has important implications for considering how much we can understand of any experience – our own or the experience of others.

The assignments had passed without incident, and we were in the final session of term. We had decided to bestow upon ourselves the gift of a celebratory session, with a quiz and festive banquet. I had spent an entire weekend writing quiz questions derived from the students' video diaries (a secret ploy to make them watch each other's videos and complete their peer review more thoughtfully), and I also had prepared a Class Spirit Quiz. At the start of the session, I had pulled on a Christmas jumper and tinsel bobble hat over my dress (you can't fault my commitment).

The Class Spirit Quiz consisted of a big table listing all our names, and empty columns for the different ways that we could be identified or understood. Broadly taken from Gee's (2000) conception of identity as being divided into natural identity (a physical trait), institutional identity (student or teacher), discursive identity (how the person is known, for example, chatty) and affiliative identity (a sense of belonging valued by the individual, for example, member of MENSA), the students had to complete each of those four types of identity for each other (and me). I had also added a fifth category for impression (as in, first impression).

If they didn't know, they were free to guess, but the guesses should be marked with an asterisk. Once the tables were complete, the students should check with each other, to see whether what they had written was correct. You scored two points if the person agreed with what you had written, one point if they weren't offended, and then you scored minus a point if they were offended. You didn't have to check with anyone you weren't comfortable showing your ideas too, but the more people you checked in with, the more points you could gain.

Most students did complete the chart for everyone, including me, but only a few had the nerve to see if they could win any points by sharing their responses about me, with me, in person. Lucy was the first student to nervously approach me. Her ideas about me were interesting and somewhat accurate, but in the impression column she had written 'cold'. I immediately considered this to mean that she found me a 'cold' person – as in unengaged or unemotional. Probably because this is something that I fear I am. I know that I can come across this way sometimes and I wish that I didn't. Whether that means I am actually emotionally unengaged, is another matter. But anyway. Cold.

I tried not to show that I was upset or offended, and said 'oh, that's interesting, how do you mean?'. And Lucy replied 'oh, you know, you must be cold because you're wearing a bobble hat and jumper over your clothes indoors. And it is really hot in here…'. Oh. That kind of cold.

Now, that was a simple misunderstanding, quickly corrected. But my emotions didn't back down quite so quickly. I still felt hurt by the comment, even though I knew that I

had misunderstood Lucy. Lucy never said that she found me cold emotionally, she said that I looked like I was feeling cold because I was wearing a silly bobble hat and jumper.

So if we go back to Rudie's (1994) process of generating meaning it might go something like this:

1. Imprint – 'you seem cold'
2. Observation – 'she thinks I come across as cold'
3. Symbolisation and Metaphorisation – 'wow, I'm a terrible person'; 'damn, I come across as cold'; 'maybe it was this moment or that moment that created that impression'; 'I wonder if other people think this'; 'I thought she liked me'
4. Articulation – 'what do you mean – oh that type of cold'
5. Objectification – 'she thought I didn't feel warm enough'

However, subjectively, this is not how the process went at all. Even though I knew my initial understanding was incorrect, whenever I think about Lucy or this session, my first thought is 'oh, Lucy thinks I'm cold'. Rapidly followed by, 'no, that's not right' and then an up to date thought about Lucy or about the rest of the session. But that initial emotional response remains. It is like it overrides my common sense and my intellectual understanding of the moment and has to make itself known. My symbolisation and metaphorization pot still contains those multiple initial thoughts about the meaning of 'cold'. They haven't been eradicated by the subsequent articulation and objectification stages.

I found this experience really puzzling, but also quite enlightening. Students often go through difficult experiences in their learning. They mistake things, their understanding of things evolves over time. And as a teacher, I expect these bumps in the road. They are all part of learning. But I also have a linear view of them. Once an incorrect assumption has been corrected, or a difficult experience has been resolved, surely it is over. It is the correct(ed) assumption that remains. It is the resolution not the difficulty that persists. And so I have always been frustrated to read student feedback that refers to transient misunderstandings, to difficulties

experienced, as if they do, in fact, persist. And with no reference to the actual resolution. Reading the feedback, it seems as if the student is complaining about the very problem that has been solved (often many months earlier). But while the issue may be in the past, may have been intellectually replaced with a solution or a corrected understanding, perhaps it is their emotional memory that is being shared.

This also makes me wonder about the linearity of Rudie's (1994) process. I rather think that the polysemous symbolisation and metaphorization stage is rich with context and experiential luggage. It seems like this is a bubbling cauldron, being continually fed by new imprints and observations, and putting out numerous, contradictory (or complementary) articulations and objectifications. Certainly, for me, it remains a personal truth that I might be perceived as being 'cold' (emotionally), and merely a funny anecdote that it was actually because I was wearing a bobble hat and Christmas jumper over my dress.

If I could hand back time

The final part of the module involved the students designing and completing a project that would change their own experience of happiness, sustainability or smart living in their day to day lives. We again co-wrote the assignment brief and mark scheme. The rules of engagement were that the students had seven weeks to complete the entire project, the students needed to write their 'intention' on the whiteboard in the classroom at the start of each session (what they intended to progress during the session or week) and that the students had to hand in something other than a written report at the end. Their submission should represent the entire project process and not just the outcome. We had done a fair bit of work between the submission of the video diaries and this moment – looking at how to create a design brief, the components of a design and project process and how to effect change in the real world. The students were prepared for this moment. And I had no hesitation in handing over seven weeks of class time to the students. In fact, there was a nice symmetry to this. In the first part of the module the students had 'handed me' time, given over all responsibility to me, and now I was handing back time to them. Trusting them to manage their time and make the most of this extended period of project work.

In the first week, the students wrote up things like 'pass my degree' on the intentions whiteboard. But by the second week, some students began writing genuine, specific things. By the third week, students that were going to be late or couldn't make class started emailing me their intentions so that I could write them up on the board for everyone else to see. These white boards were so powerful that I started adding new boards each week, for things like 'I'm proud of…', 'I don't know what to do about…', 'I'm happy with…' and the students loved completing them.

Got that sinking feeling

A couple of weeks into the projects though, I was beginning to feel that initial momentum slipping away. The ambitious first ideas of the students were proving difficult. There had been set-backs. Plans had gone awry. And there was a slight sense that the students were pulling back strategically to things that they knew they could do. Paintings, poetry and sculptures were turning back into reports and essays. The students were minimising the 'doing' of the projects in favour of knowing the outcome. Having certainty in what they could submit.

One student, Gabriella had started on a journey to becoming a minimalist. With sustainability as her concept, she had decided that she would transform her student accommodation into a minimalist temple. In the third week, she arrived at class looking tearful. I asked her what was wrong, and she said that her whole project had gone wrong. She wouldn't be able to complete it, and it was too late to start again. Further probing revealed that she had decided that she couldn't become a minimalist because she was too attached to her belongings. She didn't want to get rid of photos of her family, or a pair of shoes that she wore to her school prom. This constituted a disaster in her eyes.

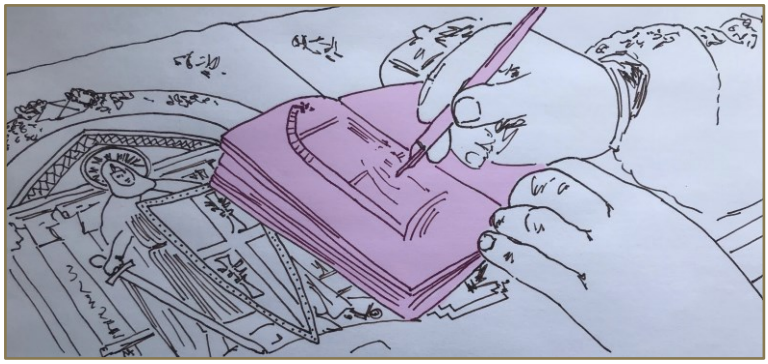
We discussed at length that this was a part of the project. Completing the project was not about stating a goal and then achieving that goal at any cost. The project was happening now – this was a part of the journey. She was making valuable discoveries that would inform the rest of her project. She was learning about herself and the practice of minimalism. She could revisit her design brief, modify her aims, and document these changes as valuable findings of the project.

And Gabriella was not alone in having this concern. Other students too were sleepwalking through the 'doing' of the project, not capturing their most valuable discoveries, but instead working towards a preconceived idea about what their final output should be.

We're not in Kansas anymore

These were desperate times, and they called for desperate measures. I gathered everyone together and suggested that actually most of the projects would be enhanced by a project diary – by keeping track of all the twists and turns, the things that were discovered along the way. Some students had scrappy pieces of paper with notes on, one student had a complete electronic record of every conversation and every idea had by anyone within earshot at any given moment, but most of them were not paying attention to the here and now of the projects. In exasperation, I threw my hands up and said 'think Indiana Jones, think grail diary!'. In response to which most of the students looked at me blankly – they hadn't seen the film.

I quickly found the film online, explained the plot and showed them the sequence from The Last Crusade where a young Indiana Jones bursts in on his father, desperate to tell him about his latest adventure, and his father makes him wait because he is drawing in the grail diary (Data Image 21). This diary is a beautiful object, a record of all his research and ideas about finding the holy grail. Rather than it detailing the process of actually finding the grail, it's a repository of gathered wisdom, clues and tips. An odyssey in diary form.



Data Image 21: Creating the grail diary

So we watched this short clip together. And the next week, several of the students turned up with leather-bound diaries that did indeed begin to capture the process of their projects.

Being able to value their diaries (they were probably expensive), meant that they started to value the content of their diaries – the time they were spending on their projects. The here and now. And the quality of their thinking and the quality of their projects began to change. Perhaps these diaries were, like the boxes in the first part of the module, acting as containers for the anxieties of the students, as transitional objects that brought them comfort – or maybe they were performing a still more complex function, holding a mirror to the inner workings of each student (see Figure 11 from Method(ish)).

The following weeks in class were unlike any that had come before. Strange as it may sound, these diaries became active participants in the classroom. Where before I might have had a conversation with a student, it now seemed as though the conversation was between myself, the student and their diary. The students attributed agency and a sense of personhood to the (obviously inanimate) diaries. They were emboldened and enabled by the presence of their diary to speak, act and think in new ways themselves. Now I am not a religious person, but this was the second time that a somewhat mystical, sacred or reverential force had inhabited our class. Earlier on in the year, the file boxes introduced this phenomenon, and now history was repeating itself with the diaries. The interactions between the students and their diaries, and the interactions that the students invoked between me and their diaries, lent a somewhat animistic quality to proceedings (Bird-David, 1999).

The diary that collected its own data

For two weeks, I had been trying to convince Lina to collect materials as evidence of her project on sustainability. In particular, she was addressing the fact that shopping receipts are not recyclable, and while stores tend to ask you if you want the receipt or not, they still print it every time and simply throw it away if you decline to take it. I had suggested that Lina collect a week's worth of receipts to demonstrate the scale of the problem as experienced in her life. She really didn't think this was a good idea, and was struggling to see how she would submit something like a collection of receipts.

Data Vignette 15: Well, if it's for the diary…

Private conversation with Lina about her progress with her project.

> 4.25pm Monday 25th February 2019
>
> Me: How have you been getting on this week?
>
> Lina: Quite well I think. I needed to collect receipts for my diary, so I did that. And the diary needed an introduction, so I wrote one.
>
> Me: I thought that you didn't like the receipts idea?
>
> Lina: Well I didn't. But the diary needed them. For the page on receipts and my entries about shopping. See, I colour coded the shopping pages, and receipts are 'red' for a serious problem.
>
> Me: Great, so you've stuck them in the diary?
>
> Lina: Yes, these pages were made for receipts…
>
> Me: You made those pages for the receipts, that's great.
>
> Lina: No, I mean the diary has pages that are for the receipts, so I had to stick them in.

Clearly, Lina's diary that she bought in a shop, did not come with ready-made pages for sticking in receipts to capture physical data about a sustainability issue. In fact, her diary was similar to a 'filofax', like a tiny ring binder. She could include as many pages as she liked, reorder them as often as she liked and therefore structure

her diary as she liked. Further, all her pages were blank paper – she wrote or drew all her own headings, and decorated the pages with doodles and illustrations. So she did, in fact, create the pages for the receipts. But it served her anxiety about whether she was doing her project correctly, whether sticking receipts into her submission was valid, to attribute responsibility for this to the diary. Lina attributed agency to the diary in order to garner the confidence to complete her project in this manner.

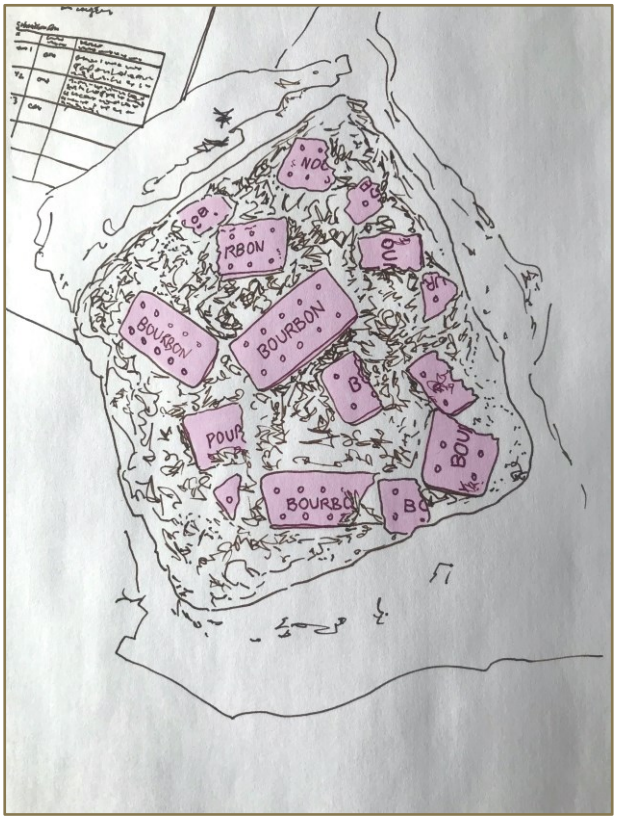
So rather than the attributing the diary personhood in an animistic fashion, I think it is more helpful to think about the role played by the diary in terms of a projective mechanism for managing the uncomfortable emotions being raised by the project (Freud, 1936). For all the students, taking a risk, working in new ways, revealing personal thoughts and feelings about the experience of doing their work (rather than the impersonal and perhaps sanitised 'output' of their project) was clearly very uncomfortable. They felt embarrassed, shy and uncertain. And attributing the riskiest decisions, their most revealing assertions and their most personal fears and anxieties to the diaries allowed the students to tolerate these difficulties. Believing that the diary 'required' the receipts allowed Lina to progress with her project in a way that was too uncomfortable to achieve on her own.

It's time for some authenticity

As we consider what was happening during this period, it might be helpful to refer to Heidegger's conceptualisation of time. In Being and Time (1953), Heidegger talks about three increasingly authentic modes of defining time. At the most superficial level, we have an inner perspective on time. We develop an ostensible engagement with the idea of time, but governed by the mundane requirements of existence. This might include the temporal expectations imposed on us by habit, the media, institutions or even just calendars. A more nuanced understanding is informed by historical time, where the theorisation and contextualisation of particular phenomena in a given moment in time, shed light on our present moment. Finally, there is the most personal and deepest engagement with time, the existential perspective. Here time is understood and elaborated via an authentic lived experience. Time is not something that happens to us, something that defines

us or controls us. Instead, time is us. We are time. Our existence is time. Experience is time.

As this seven weeks progressed, the students really took ownership of their own time. The temporal space afforded by their projects became defined and co-created by them as a group. I felt as though I was in their projects, rather than them being in my classroom. The students started making each other food and bringing things for each other – such as music, books and materials. And I was drawn into this sharing. Every cake, biscuit and brownie had to be shared with everyone – whether you wanted to eat any or not. And one very memorable 'bourbon brownie' nearly broke me in my commitment to the class. I have never before or since put something of that texture, taste or appearance (it was incredibly wet looking, but surprisingly elastic and not at all sweet) in my mouth. But in this moment, consumption was not optional.



Data Image 22: The bourbon brownie

The students were moving away from a superficial, inner engagement with time, driven by their concerns over deadlines, the pressures of student life and the idea

that time and effort were inextricably linked. Increasingly, the students referred to their projects being 'real'. They valued and included their experience of working on their projects within the projects themselves. Before submission, the students had to write a 'letter to the examiner' to introduce the examiner to their work, and let the examiner know what they felt was important and noteworthy about their submission. Many students reflected on the 'realness' of their project in these letters.

> I wanted this project to be a platform that documents my struggles and what I am doing/incorporating into my life to be a step closer to overcoming them […] that is the beauty of this whole experience – that it will unfold itself in real time
> (Lucy)

> This project was made for you to listen to and enjoy – it is not just for marking. It took a surprisingly long time, but I loved it. I had some of the most interesting conversations I've ever had and I found a new skill I never knew I had. I really feel as though I have expressed myself and this has potentially inspired a new career. I enjoyed this more than I ever thought possible.
> (Smithson)

> This isn't a perfect journey, it's quite raw actually. What I really liked about this project is the journey of it. My expectations at the beginning were to be a perfect minimalist by the end of the seven weeks. But as I did it I realised that that was not the goal. The real interesting aim was to discover why it is such a hard thing to do.
> (Gabriella)

> This project is bigger than this [module]. The nature of the [work] means that it far surpasses the constraints of this project. It will be continued in my free time to do the individuals interviewed full justice. This is a prototype, just snippets. The hardest part was […] maintaining emotional stability. I found many answers to my questions, and I found out

> that I am not the only person who struggles or finds things hard. Enjoy. Check back in with me if you want the full version.
> (Elijah)

One student, Piotr, wasn't able to submit his project on time (due to reasons outside his control), and so didn't complete the letter to the examiner in the final session. Instead he sent this email sometime later.

> [This module] helped me evaluate my life, change [degree course], do a [summer research project], participate in [an exchange programme], get my current internship and become a slightly happier person overall. [It] has equipped me with a far broader background knowledge and a much more diverse way of thinking, [and has] produced some of my happiest moments and proudest pieces of work here at Imperial (while also being the […] most demanding [module] in my time here).
> (Piotr)

I was (obviously pleased, but) surprised at the impact that the module seemed to have had on Piotr. When I next saw him, I asked him what aspect of the module he thought had created this impact. He replied "It was all the time we spent together. I mean, we did an awful lot of things, I don't think I've ever done so many things, but we also just spent time together. We had time to do everything, and we worked very hard. But we also had time. It's like, being at Imperial is like being on a train. You're rushing along, and you can't really see everything passing by out the window because you're moving so fast. And coming to this class was like stepping off the train for a couple of hours. Just standing on the platform, watching the train rush on past, and just being still."

This reminded me of a story that I read in a book by Marcia Bjornerud (2018). She is writing about how understanding geological time might be key to engaging with the world around us and tackling global environmental issues. She starts with a story about herself as a child, stepping outside into the garden in rural Wisconsin on a 'snow day'. Relieved of the obligation to rush off to school, she is wandering in the garden and sees a small red bird on a branch. She can see the bird so clearly, it

somehow doesn't seem real. As she approaches, she realises that the bird has frozen to the branch. The bird's existence has been paused, the bird has become timeless. It is the temporal break with reality – both for the bird and herself on her snow day – that allows her to really 'see' something with extra clarity. She later refers to this as experiencing timefulness rather than the more usual human timeliness (2018: p17). Timefulness allows us to experience the whole of time, to be in the present moment with all of time everywhere around us. Whereas timeliness forces us to consider our temporal existence in relation to the most proximal signals of time – an impending deadline, a late train, a rush to a meeting.

It seems like Piotr, by stepping off the 'Imperial train' and committing to our class, might have experienced some element of timefulness.

To infinity and beyond

Some projects even migrated out of the classroom and into other spheres of life. Smithson's project became a podcast, that is still ongoing. Elijah created a student resource, and continues to create new content on the topic of overcoming hardship. And Martha straddled parallel worlds, creating a project that operated both in our own classroom, and in the boardroom of an NGO where she volunteered as the leader of youth services.

Martha had used the creativity tools we had tested together in class and our conceptions of good design and project processes in a meeting of the board of directors to help them come up with a project to engage the youth membership of the organisation. She then brought the project back to class as something that she could use to fulfil the assignment. I initially thought of this in terms of wayfaring (Ingold, 2015), with her learning weaving its way in and out of the classroom. But later, I came to see it as a form of origami-style bending of time. It was as though Martha was able to take a timeline that was occurring in her life outside of College, and fold it over to align with the timeline of our class. But she fought hard to maintain this alignment, with competing pressures continually threatening to rip up her origami swan of a project. Ultimately she succeeded in both contexts, working in a way that was entirely authentic to her needs, responsibilities and desires.

Six months after the end of the module, Martha emailed me to reflect on this.

> I always looked forward to Monday evening, got to know the group (and you) really well and enjoyed how out-of-the-box it was.
>
> I wanted to share something that I learnt that you might not have expected. Because we were expected to develop our own product completely without any boundaries (very scary but very exciting!) it meant that I learnt how to ask for *guidance* - i.e. help without knowing exactly what help I needed.
>
> That was a very useful framework to learn because I was able to start [talking to] my peers, people at work and uni […] and was able to finally connect the dots that I'm autistic - and I finished the official diagnosis […] last month.
>
> I've now made some adjustments in my life that mean I cannot even begin to describe how stress-free life is. It's awesome! I also understand myself better and am a lot nicer to myself, which is also nice :)
>
> If you remember I made a newspaper for young environmental volunteers […] as my final [project]. I was working with [the NGO] again this summer […] and I used the same process to design a how-to handbook for a community event […]. It is already being piloted at 5 [institutions] around the UK and [being adapted] for other big organisations so that it is easier for them to get involved, too!
>
> So there you go :) very exciting times.

It's not real unless it sparkles

Let's finish our time with these second year students with Leon. His experience of completing a diary was even more powerful than Lina's.

His project involved him trying minimise his reliance on smart technology (specifically his mobile phone) to see if that changed his quality of life, and in particular his relationships with himself and others. Early in the project, Leon self-diagnosed a many-hours-per-day-watching-YouTube-on-his-phone addiction, and a tendency to use his phone in order to avoid speaking to people. He attempted to address both these issues in the weeks that followed and with the help of the diary.

Each week, at the beginning of class, Leon would apologise for disturbing me (as though I had any other purpose for being in the classroom than to interact with and help the students), and then in a hushed voice ask me to read his diary entries for the previous week. We were brought together, as if looking over the 'shoulder' of the diary, peering inside together, whispering about its insights. Its ideas. Its quality.

Discussing the contents of the diary, Leon would light up with pride and passion. But only as long as we were discussing the content 'owned' by the diary. When I pointed out that Leon himself was responsible for those insights, those ideas, he would lose his light and confidence. Backing away from the conversation.

Towards the end of the project, Leon decided that he was not creative or 'good' enough to create a submission that really reflected the nature of the diary content. He wanted to write a (rather dull) report about the measures that he had taken to decrease his reliance on smart technology.

I was dismayed. I took Leon back to the diary. We read through some of the entries together, and he began to light up again.

Data Vignette 16: I want the best Leon

Private conversation with Leon about his progress with his project.

4.55pm Monday 4th March 2019

Me: Leon, look at you. Can you feel it?

Leon: What?

Me: Well, you come alive when you read the diary. When you think about the ideas that you have in the diary.

Leon: Really? I don't know…

Me: Leon. You sparkle. When you talk about the diary. When you write in the diary. When you take a risk. You actually sparkle.

Leon: (laughing nervously) Sparkle?

Me: (emphatic). Yes. Sparkle. And now I've seen you sparkling, I can't be doing with the unsparkly Leon. I can't be marking unsparkly submissions. I just can't. I need you to find the sparkle and keep hold of it.

Leon: How?

Me: What do you feel when you are sparkling? What do you feel when you think about how you wrote in your diary? The ideas that you came up with?

Leon: Well, it's about me. I feel like I found myself. I haven't felt like that at Imperial. I've been someone else all this time.

Me: Well, I don't want that someone else to hand in a report in your name, Leon. I want the real Leon to hand in a sculpture, a painting, a poem, a fist full of glitter. I don't know, something that has real meaning. Something that is the real Leon. What is the real Leon?

Leon: (pretty embarrassed now). I don't know… I'm not used to this.

Me: Don't worry, I know this feels weird. I feel weird too. But we're pretty far into this conversation now, I don't think we can go back the other way. So. What have you discovered in this project? What has the real Leon found out?

Leon: Well, with all the time I saved, I've had time to cycle. I used to love cycling, and I hadn't cycled at all since I came to Imperial. Now I'm going out, not to cycle to somewhere, but just to cycle around. I love it.

Me: That's it. That's what you have to submit!

Leon: (puzzled) I submit a bike ride?

Me: Yes, could you attach your phone to the front of the bike and film a bike ride? You could record a voice over of you talking about your project and the new time you have to ride your bike…

Leon: I don't know about that. Just submit a film? I think I might stick to a report or something.

Me: How about if you make the film and submit it, but also submit a very short report. As a kind of back up. I think the film will be amazing,

> but if it makes you feel better, you could also submit something written.
>
> Leon: I'll think about it…
>
> Me: I'm going to be very disappointed if I don't get sparkle, Leon! I need the sparkle!

Leon emailed me the following day. Did I really think that he should film a bike ride? I immediately replied 'yes'. A few hours later I got an email from Leon saying that he had indeed filmed his bike ride, but he wasn't sure he could submit it. Would I watch it with him? I asked him to send it to me, but he said that he needed to see me watch it to know if he could submit it. I agreed to meet him in my office, and within minutes he was there with his laptop. We watched the video together and it was really moving. There was actual poetry in the sense of freedom of Leon on his bike, cycling around South Kensington.

Leon was still unconvinced about the ability of the video to communicate enough to constitute a valid project submission. I reminded him that he was also submitting a written project commentary (definitely not a report by this stage), so he didn't have to worry about dotting the i's and crossing the t's with the video. The video was the sparkle. I suggested that given the poetic nature of the video, and Leon's concern that people might not be able to understand the meaning of the video, he might be able to add some captions. Short phrases that appear during the video – almost like a poem in themselves. Leon protested that he didn't know how to write poetry, but I told him to just watch the video and write down what came into his head and then add this as a caption. And when something new came into his head, to add that as a caption. And then a poem would be born. Leon was unconvinced, but promised to give it a go.

There followed many, many, many more emails about the captions. To all of which I just replied, 'yes, yes, yes'. I had everything crossed for Leon. I was desperate for him to be bold and go for it.

In the final session, towards the end of class, it all got quite emotional. I gave a speech, the students gave speeches, there was crying. And then came the goodbyes. A few waves, some awkward handshakes. And then Leon came barrelling up in an embarrassed rush, gave me a big hug, whispered 'sparkle' and was gone.

Nervous as hell, Leon had submitted his diary and his beautiful poetic film.

Proud as hell, I (re)read his diary and watched his beautiful poetic film, that closed with a short voiceover.

> "Always try to focus on the positive things in life, that will brighten your day and make you feel special"
> (Leon)

(Close) Encounter(s)

All that is gold does not glitter,
Not all those who wander are lost;
The old that is strong does not wither,
Deep roots are not reached by the frost.

The Lord of the Rings (Tolkein, 1954/1994: p 177)

Data Found Poem 5: Just try

Smithson Daphne Garret

I am going to fail, I might as well drop out

Liz came

'you're disheartened, but it's fine

try this'

we ran with it

we grew from that point

if we were to break down the barricades it wouldn't have worked

if there wasn't that figure I could turn to

literally a figurehead on a ship

it really brought everything together

we slowly built on it

like being taught how to swim

without ever being in a pool

you're like, this is not going to work

but then you get thrown in

and you actually survive

you can swim

I didn't see it working as a learning technique

you have to work

you have to work at stuff that you don't know how to do

I was like

I'm either going to take this course

and try not to worry

because it is good for me

or I'm going to drop it

I'm so glad I didn't do that

I'm so glad I didn't

And now for our final groundhog day

It's time to meet our final group of students, so back we go to our very last first day. To our third and fourth year class taking the module Lessons From History. This is a well-established module that has run successfully for the last four years. A comfortable, known place for me as teacher.

No student has ever tackled the module in the exact same way as another student, and no class narrative has ever run the exact course of a previous cohort. However, each successive iteration has teased a similar sense of spirit from the students – presenting me as the teacher with some familiar 'characters' year after year. There are always the engaged, appreciative students. There are always the quiet-but-thoughtful students. There are always the difficult-to-judge students. And there has always been one particular character, usually sitting at the back, who is difficult. Confrontational. Obstinate. Desperate to prove that this module will not 'work' for them. And so far, I always win them round in the end. For the first couple of years, I only recognised this student after the winning had been done. In the (many) weeks before that, I was despairing of their constant complaints and objections. But for the last two years, I was able to ride the wave of our spiky interactions a little more confidently. Hoping that this would be that same student, who would about turn and ride to victory in the final mile.

And coming into this year, of teaching and research, I wondered whether this character would be present. I have been longing to consider this student in more depth – what if they didn't show up this time around the block?

But hang on. Is this an illicit thought? Should I be hoping for a particular phenomenon to occur in my teaching, and therefore my research? Surely this might cloud my judgement, driving me to look for something that might not be there. It might blind me to more interesting or revealing insights that could be found in different types of moment. But on the other hand, maybe this is just a symptom of my "experiential luggage" (Rudie, 1994: p28). That also makes me a more attuned and knowledgeable observer in the field.

Either way, this is what I must recognise in myself as a potential barrier to true, faithful, unblinkered observation. But I think that I have been realistic. Firstly, I know that there really is no such thing as 'objective' observation. And secondly, I 'know' my teaching really well, and therefore I am aware of all sorts of things that might or might not happen during this module. My teaching self would like to look out for these known and knowable things, to bring my experience to bear on them and to manage them in the classroom to the best of my ability and in the best interests of the students. My researcher self is aware that while these semi-expected things might occur, there might also be other things happening that my teacher self is as yet unaware of. And that makes this particular class very exciting to approach this time around. I'm in my favourite state of prepared-unprepared. I know and yet I don't know. I imagine and yet cannot begin to imagine.

In any case. I wasn't left wondering about this conundrum for very long.

Data Vignette 17: Garrett's first complaint

Private conversation with Garrett at the end of the first session.

> 6.05pm Thursday 18th October 2018
>
> Me: Hi, Garrett, how can I help?
>
> Garrett: Well, I just wanted to talk to you about the class. I mean, I don't want to be rude or anything, but I didn't learn anything. So what's that about?
>
> Me: (Gulp.)
> OK. Well, I think that we've actually done quite a lot of work this afternoon, thinking about how we are going to learn together over the next nineteen weeks. You've met your team, learned a lot about them, and you've learned about the module structure.

Garrett: Yes, but we didn't even learn just one thing though…

Me: Hang on, what do think of as learning? We learned an awful lot of things about each other today. We practiced lots of the skills that we will need to navigate this module. So, I would say that you learned quite a bit this afternoon.

Garrett: But I didn't learn anything that I could tell anyone…

Me: But not all learning is like that. It's not all facts and figures to impress people with. Sometimes it's about learning who can contribute what within a team. Sometimes it's about learning how a process works, and how you can engage with that process.

Garrett: I'm not really interested in that. I came here to learn actual things. If I'm not going to learn actual things, then I'm going to swap and just take another chemistry module.

Me: Well, I can't make that choice for you, if you want to swap, you should swap. But I promise you that you will learn lots if you give this module a chance. But you might need to open your mind up to the types of things you might learn. I don't think it will necessarily be what you think you are going to learn. Although there will be some facts and figures along the way. It's your choice, but I really hope that I see you next week, and we can talk more about this.

And so it is Garrett that neatly introduces our final theme.

To be fair, I always encourage students to speak up, speak out (respectfully) and to challenge me on anything that they don't understand, they don't feel is necessary or that they don't like. I would rather address these issues with the students and negotiate some level of acceptance, willingness to engage or even tolerance than have the students silently and behind-closed-doors resenting or avoiding something that might be a very important part of a learning experience. And expressing confusion, concern, discontent and dissent effectively yet respectfully is a very difficult and crucial skill, which this module can provide space and time to practice.

To an outsider, the Lessons From History classroom generally appears quite feisty. Every decision is negotiated between the students and teacher. The students are encouraged to talk out their disagreements and worries. And they do. At the start, it can be a little hit and miss, but by the time the module is under way, there is an acceptable just-verging-on-a-bit-rumbunctious life force that animates every session. And there is usually a figure-head for this spirited to and fro. One particular student who can be relied on to voice any doubt, air any complaint and push back on any decision if no one else does. And by the end of the first session, it appeared that this particular role might be played by Garrett this year.

And so it began. Garrett and I entered into a very public-private war of wills. Sometimes he confronted me in person, sometimes on email. Sometimes in private, sometimes in front of the whole class. But these were incredibly valuable interactions – both for him and the other students that witnessed them, and they represent my third theme – encounter.

What happens when student and teacher come together? Is there something that is neither student nor teacher that is accessed in those moments? "For it is in and through relationships that persons come into being and endure in the course of social life. It might be helpful to think of social relations as forming a continuous topological surface or field unfolding through time. Persons, then, are nodes in this unfolding, and sociality is the generative potential of the relational field in which they are situated and which is constituted and reconstituted through their activities" (Ingold, 1991: p327).

Are we for or against?

Why have I chosen to use the word 'encounter'? Perhaps communication, interaction or even collaboration would be a better choice. What is it about what I am trying to uncover in this particular part of our story that has drawn me to the word encounter?

Isn't encounter just synonymous with communication? Perhaps an interaction between individuals? But does it even require interaction on both parts? I could encounter some art in a gallery, and I don't anticipate that the artwork is much moved by our meeting. So is encounter more a 'coming across', a 'stumbling over' or a 'becoming aware of'?

I think that actually it has a slightly more confrontational overtone than that. There is something slightly affronting in the word encounter. A startlement.

Etymologically, the word arises from the Latin words for 'in' and 'against'(English Oxford Living Dictionaries, 2018). So even if it is a more one-sided coming across, there must some sense of challenge, movement or change on at least one side. But perhaps this is where our limited thinking is preventing us from really grappling with the idea of encounter. Although we are meaning some sense of coming together of two 'sides', perhaps there is more space in the interaction than just that occupied by the two parties? Perhaps this 'other' aspect might be represented by Ingold's (1991) 'sociality' – the potential of something to be changed and shaped by the coming together.

How did we get here?

So far, we have considered the concepts of space and time, as a way to understand more about the experiences had in our first and second year classrooms. On paper, these might seem like quite passive concepts compared to what we are about to leap into in the pages ahead. I've intimated and promised feisty confrontation and negotiation. Something rather more action filled than perhaps the shape and function of a room, or the unfolding of time.

But actually, thinking back, we have seen how both space and time 'actively' shaped our experiences. "Since none of us is taught to look at space as isolated from other associations, feelings cued by the handling of space are often attributed to something else. In growing up people learn literally thousands of spatial cues, all of which have their own meaning in their own context […] Literally thousands of experiences teach us unconsciously that space communicates." (Hall, 1973: p161).

We felt the impact of the steeply raked lecture theatre on the incoming first year students, we saw the students push back on the constraints of space as they wove multidimensional timelines through seats and benches to redefine that same space. And we saw how space can actually be reconceptualised as a meandering sequence of knots and entanglements – only being named by the nature of the experiences taking place within, around and without.

With our second year students, we felt the weight and shackles of time constricting their freedom to engage with their work. We fought hard to reimagine our time together, to create space and ownership of a new conception of time. A time that liberated, supported and empowered the students to tread new ground. "Time talks. It speaks more plainly than words. The message it conveys comes through loud and clear. Because it is manipulated less consciously, it is subject to less distortion than the spoken language. It can shout truth where words lie." (Hall, 1973: p1)

And if you remember, we started to pay attention to a sense of rhythm with those first year students. We reflected that Kevin's wayfaring and knots were expressed rhythmically as he navigated our learning space. But what of the second years? With all that stripping back and emancipation of time, didn't that also remove any sense of rhythm?

Let the music move your feet

As we considered previously, Lefebvre (2004) suggests that our starting points for sensing, recognising, and making meaning from rhythm are our personal, internal, and often biological rhythms. They are with us at all times, they form the backdrop to our every moment. We contain rhythm and we make rhythm. With or without noticing, with or without intending to. And the ability to be aware of these very personal (and sometimes private) internal rhythms enables us to engage more

deeply and consciously with the other, more external rhythms that dominate our day to day existence.

And just as we have toyed with the ideas of the (circular or) cyclical and linear in our explorations of space and time, so too are these opposing frameworks relevant in rhythm. It is in those oppositions (such as cyclical versus linear) that Lefebvre (2004) identified that rhythm becomes apparent.

So let's cast our mind back to those second year students, and their fear of wasting time. Of being inefficient. Their equating of grades with time spent learning. Where does this come from? Perhaps from their experiences of rhythm in the world around them. And specifically, for these students – in this place, at this time – institutional rhythms.

These might be organisational temporo-structurally driven forces – such as the beats of the academic year, the terms and their modules within. But some rhythms might be more experientially driven – from a shared, collective survival of ever-increasing content to be learned, competing deadlines and frequent examinations. Of trying to learn in the same way as their fellow student, the student before and the student to come - a kind of group-think-gone-large (Whyte, 1952). A we-can't-all-be-wrong, safety-in-numbers, wisdom-of-the-crowd type thing. But also an emotional and psychological Goffman-esque (1961) submission to the whims and values of the 'asylum'. The lore of the place that will either grant them permission to move on to the next stage of their lives, or will forever cast them aside.

But how do these rhythms become so dominant, and is it really a problem? If you are a student studying at a university, perhaps those rhythms should dominate your experience, should guide you and support you through your learning. Those rhythms are certainly important, but ideally we should be able to consciously engage and disengage – we should be able to integrate them with other important individual, social and every-day rhythms. The problem arises when they drown out our personal dawn chorus, our internal tick tocks, accelerations and pauses. Without us even realising we've been silenced.

Lefebvre (2004) suggests that it is the emotional component of these pernicious rhythms that allows them to drown out our engagement with the more neutral, natural rhythms of our experience and therefore our engagement with ourselves – "our sensations and perceptions, in full and continuous appearances, contain repetitive figures, concealing [our rhythms …] We contain ourselves by concealing the diversity of our rhythms. […] But what does a midge perceive, whose body has almost nothing in common with ours, and whose wings beat to the rhythm of a thousand times per second? This insect makes us hear a high pitched sound, we perceive a threatening, little winged cloud that seeks our blood. In short, rhythms escape logic, and nevertheless contain a logic […]" (2004: p20).

And so, creating an apparent absence of rhythm through the modulation of the student experience of time didn't remove rhythm entirely. It removed the midge-like, whining drone of 'expected' rhythm, of institutional – or as Lefebvre (2004) would term it – linear rhythm. Allowing the cyclical, cosmic or natural rhythms of the self to break back through for the students.

It was as though within this 'asylum'(Goffman, 1961), the students saw learning, work and deadlines as a series of duels – entering into arranged combat between two parties (the student and the institution), in accordance with agreed-upon rules (driven by the linear rhythms of the asylum). And somehow, we perhaps managed to stop the inexorable, predictable and rhythmic pacing out of these battles by using time in a different way.

As we saw and felt, this created a lot of uncertainty and fear – that we were able to contain with the concept-mobile boxes, and later with the intention boards and diaries. We were able to create some less toxic, perhaps inert rhythms with these material tools that gave us something to hold on to, but allowed our personal rhythms, desires and abilities to rise to the surface. Martha was able to fashion origami folds in time and bring non-institutional rhythms to bear in her work, while Lucy allowed her project to find its own rhythm, stating that it would "unfold itself in real time" (real time, not institutional time). Lina found rhythm – or rather created rhythm – in the pages of her diary, while Leon went a step further and repurposed

time for himself, establishing new opportunities to experience and express rhythm around the streets of South Kensington in the saddle of a 'Boris bike'.

Once the students were able to disengage from the treadmill-like institutional rhythms and their individual expectations of how we should work together, there was a moment (or quite a few moments) of vacuum or void. But with a little encouragement (and some pipe cleaners), the students were able to listen to other rhythms, and were able to let those rhythms (or music) move them (and their feet) forwards.

If you want to do the conga, you've got to listen to the beat

My words to the students and now my words to you tell only part of the story. It was the actions of space and time, and our actions within space and time that completed this narrative. This transformation of our being and learning together. And as we have just discovered, it has been the coming together of space and time that has contributed to our sense of rhythm. But, as Lefebvre noted (2004), rhythm has three components – space, time and energy. I'm going to take a little liberty here, and bend 'energy' to my will, to be explored in terms of encounter. So my understanding of rhythm may be expressed as a coming together of space, time and encounter.

And so it seems appropriate now to move on to encounter. To a more explicitly communicative concept, and yet one in which it is perhaps the non-verbal, non-explicit part of the encounter that interests me the most. We "live in a "word world" which we think is real, but just because we talk doesn't mean the rest of what we communicate with our behaviour is not equally important" (Hall, 1973). Hall goes on to refer to non-verbal behaviour as being in 'juxtaposition' to words – meaning that it is not a complimentary layer of meaning, but rather that it might communicate something entirely other than the words being used, and might even be in direct opposition to those same words.

Learning in Lessons From History

In some ways, Garrett's concerns were very understandable. Lessons From History does not 'teach' students about history. The module is designed using a variation of

Team Based Learning (Michaelsen, Bauman-Knight and Fink, 2003). It is structured using a three week repeating cycle that moves students through a sequence of learning tasks to build an understanding of a historical disaster and of the legacy of our learning as a society from that disaster.

In the first of the three weeks, we explore the new disaster together. This is usually a whole class activity that allows us to assess our current awareness of the disaster and identify good research questions to further our understanding. The students then break into their teams (they stay in the same teams from day one until the end of the module) to develop a 'knowledge base' about the event. This is an organised documentation of everything they find out about the event in question. Each team tackles this exploration from a different 'perspective' – the teams pitch for the perspective they want to work with, and need the agreement of the whole class to proceed. The perspective might be something like a social, economic or political perspective – or it might be a literal perspective – such as the perspective of the victims, perpetrators, emergency workers or political leaders involved in the event. This means that when you compile all six knowledge bases from the different teams, they cover more varied ground than if every team took the same approach.

And this is an important part of this module – understanding that by working within a team, and as a wider team with the whole class, we can actually learn a lot more than if we work individually. This becomes critical as the module builds, and the final essay requires students to engage with the work of the whole class, from across the entire the module.

Alongside the knowledge base, the students each select a number of sources and create an annotated bibliography. The annotations must include the content of the source, a critical review of the purpose and author of the source, and an indication of the usefulness of the source as well as a personal reaction – was it interesting, shocking, surprising, boring, hard to read, entertaining…

In the second week the students complete a multiple-choice test individually, and then tackle the same test again in their team. They use a scratch card for the team test and must reveal all the correct answers with the fewest scratches to gain top

marks – so every scratch must be negotiated and agreed in the team, with students developing their understanding of how to achieve this as the cycles pass by. The students vote in each cycle on whether they would like the test to be 'general knowledge of the event' or 'questions from a set reading'.

Finally, and in more of a departure from standard Team Based Learning, the teams write their own yes/no question that they must answer, as a team, in exactly 250 words of exquisite, persuasive prose, citing exactly five sources along the way. This is a tall order in a group of five or six students.

All the work, (knowledge base, annotated bibliography, question and answer) along with a team reflection, is due in at the end of the third session – meaning this is often a heated, exciting session with us all barrelling towards the deadline, adjusting and readjusting the writing against a flurry of meddling and infuriating last minute feedback from me. The work is documented in a team wiki within our online learning platform, which is editable by everyone within a team, but also readable by the whole class.

At the start of the following week, before the next cycle commences the teams receive their feedback, in the form of a diary. They receive feedback on all the elements of the cycle, and they must write a team response to the feedback in their diary. The feedback accumulates and they can review their progress and prior feedback with each new piece added to the diary. In addition to this private team feedback, I annotate public feedback on their writing, which can be viewed by everyone in the class.

And when I say annotate, I mean ann-o-tate.

Every… single.... word… of their question and 250 word answer is critiqued, with questions and suggestions for problematic choices; and – above all – jubilant praise for good progress and passages that work well.

Their aim is to write something so beautiful, so persuasive, that the reader is unaware they are even reading. Nothing should stick out, arrest the reader or in any way

distract them from being persuaded by the elegance of the team's ideas. We don't tackle the writing in a formal manner, looking at grammar and the technical aspects of argument formation. Our students love a formula, and giving them such a tool would tend to result in formulaic writing. Instead, we analyse their work using emotional and experiential values. This is terrifying and puzzling for the students (and me) at first, but never fails to lift the writing of even the most hesitant student. And it works across language barriers, for students who are less confident about writing and for those that have enough 'facts' to learn already and could do with engaging a different way of thinking and working.

And the first lesson is…

And so back to Garrett. No wonder he felt adrift in those first sessions. This is surely alien territory. There is a lot of structure (unlike other Change Makers modules), but there is also a lot of independence, a lot of team working, and a lot of unfamiliarity in the processes, approaches and rationale.

So did Garrett come back to tackle the next week?

He did. And he repeated his concerns both during and after the session, and our conversations went very much the same as previously.

His team, Befuddled, were very quiet during the final week of the first cycle. Unlike the other teams, they didn't ask any questions or request any feedback. They submitted their first cycle's work without fanfare or drama. Although when I came to mark their work, it raised plenty of drama and jeopardy for me.

The team had completely missed the point of the written question and answer. The more mechanical parts of the cycle were completed well enough for a first attempt. But instead of writing a response to their question, they had compiled lists of evidence – maximising their use of the 250 words by leaving out any non-essential words like 'the', 'and', 'a', or 'because'. I was devastated for them – both because if I had seen this before submission, I could have headed off this disaster and redirected the team to write in actual sentences. But also, because I felt like this might be the nail in the coffin for Garrett's participation in the module.

And so it was with much trepidation that I approached the fourth week and the handing out of feedback.

Data Vignette 18: Delivering difficult feedback

Speaking with team Befuddled about their feedback.

> 4.10pm Thursday 8th November 2018
>
> Me: Befuddled. I have your feedback. I'll give you a few minutes to look it over and then come back and have a chat.
>
> Daphne: Sure, ok…
>
> They open the diary. They read. And then. Confusion. Flushed faces. They're embarrassed. And upset.
>
> Me: Befuddled. I know this wasn't the feedback that you wanted.
>
> Garrett: No. We totally fucked up. Sorry.
>
> Me: Don't be sorry. Let's figure out what went wrong and make a plan to fix it for next time.
>
> Garrett: We didn't write an answer. We just tried to dazzle you with facts.
>
> Me: And so what can we learn from that?
>
> Garrett: You don't want to be dazzled.
>
> Me: I don't want to be dazzled by facts. I want to be dazzled by your writing!

Garrett: I know, you want us to actually write something. But how can we? With only 250 words? It would be terrible. We could never answer the question properly.

Me: The way we do it is to practice. Cycle after cycle. And to ask for feedback. Every five minutes if you like. I challenge you to try asking me too many times. Until you have achieved utter perfection, I will always have something to say. I promise. Something that will help, and push us forwards. But first up, let's look at some of the answers from the other teams. Let's see if it is possible to try to write an answer that packs a punch.

We review some other submissions – noting things that work, and things that don't. Things they want to try next time, things they think they could do better.

Me: So. For this next cycle. Stay in touch with me. Ask me anything. Everything. I will not let you submit this (pointing at Daphne's laptop screen) again.

Daphne: But this is so awful. We've done so badly. We're terrible at this. What if we can't do it?

Me: I know you can do it. I know that you are going to be absolutely brilliant at this. (picking up energy and pace as I sense an idea coming together). I am totally certain of it.

Daphne: (even more dejected) How can we possibly be good at this?

Me: Because out of all the teams, you have learned the most. You've had the hardest lesson, and you've given yourselves the hardest start. But also, you've learned the most. You know exactly what not to do. These other teams don't know that. They've done ok. They've got ok feedback. But they haven't learned anything as powerful or as useful as you, Befuddled. Trust me, you are so far ahead of the others now – you just can't tell yet. When you completely nail the next cycle, which you will by the way, you will realise how valuable this little, teeny tiny – ok - complete whopper of a mistake has been.

Daphne: I don't know.

Me: Let's make a pact. You work just as hard as last time, but this time I want you to show me every single thing that you do. Every step of the way. And I will be in charge of you not messing up. I can't promise you'll get full marks, but I promise that you'll make solid progress - no big mistakes - and you'll surprise yourselves. Oh my goodness, this is going to be so much fun! But don't forget, I want to be so sick of you guys in the next couple weeks that I can't bear to give you any more feedback. If we don't get to that point, you haven't asked me enough. You haven't used me enough. And I haven't earned my salary. OK? Pact?

Garrett: We'll give it a go. But we can't promise anything.

Me: Um. I think you can. Come on!

Daphne: OK. We promise we'll try our best.

> Me: Right, I'll take that. Now get cracking or you won't have time to ask me anything before you go home.

And so, following our first cycle exploring the Chernobyl nuclear disaster, we moved on to explore the 1992 LA Riots – a completely different type of disaster. And for this topic, I like to begin with a drama activity to explore the experience of injustice.

We start with all the students standing up, facing forwards. Some volunteers come to the front and act as observers. I ask everyone to think of their happiest memory, and to play the memory in their head like a video. Just to stand and watch their internal video of their happiest moment. And the observers make notes on the whiteboard about what they can see happening. About body language, facial expressions, the 'feel' of the room, the 'energy' that rolls towards the front.

We then move on to remembering their most bored moment in time. And typically, that bubbly, giggly warm energy from the first memory gets sucked out of the room. You feel the room fall flat. Shoulders slump. Gazes drift downwards.

And then we move on to the mental playing of injustices that we have experienced. Anything that we feel comfortable to think about in the presence of others. Jaws tighten. Eyes become fixed. Arms and shoulders stiffen. We all feel like we're holding our breath.

After discussing the observations, the students break into pairs. Now one student plays their injustice video in their mental VCR while the other watches. It is very intense. Intimate. And then I ask the students who are watching to comment on how they feel about watching. What emotions come up for them? Usually, they share their concern for their partner, wondering what had happened in their life. And they talk about how they couldn't stop thinking about their own experience and their own emotional response. They feel angry and motivated to try to help their partner.

And gradually as we discuss this, we understand one of the reasons why people might act out of character and join protests, participate in civil unrest or even riot.

We understand the commonality of human emotion. We understand sympathy and empathy. And we understand how our different experiences can tap into similar emotional values, uniting us in our responses. And – sometimes – how this can act as a call to action.

As this discussion unfolded, I noticed that Garrett had his hand up. Again.

Data Vignette 19: Garrett's moment of reckoning

A moment of whole class discussion during the drama activity.

> 5.20pm Thursday 8th November 2018
>
> Me: Garrett, do you have a question?
>
> Garrett: Well. I just want to say something.
>
> Me: OK. Go ahead (slightly worried)
>
> Garrett: Well, I thought this whole activity was complete nonsense. I mean how ridiculous is this. We are supposed to be learning about the LA Riots and instead we're sitting here, watching each other and mostly just giggling.
>
> Me: Yes, I said at the start, that if this activity works for you, that's great, but if it doesn't, you have my permission to wipe it from your memory and never think of it again, and I would write you an IOU for 30 minutes of your life…
>
> Garrett: Yes, but I wanted to make sure it was nonsense. Just in case you were right about something. So I did a trick…
>
> Me: Uh-huh…

Garrett: When we were sitting in pairs, I made Damo think about something that made him feel bored instead of his injustice memory…

Me: (even more worried now) And what happened?

Garrett: Well, it can't be nonsense. Because I looked around and saw everyone else thinking about injustice, and the people remembering looked one way, and the people watching looked another way, and Damo looked different to them and I felt different to them. So then I leaned over and told him to think about his injustice instead, and everything changed.

Me: How so?

Garrett: Well, I could see that he was going through something, and I started to have feelings about it. And then I couldn't stop thinking about how I felt, and how Damo felt and then I knew that this isn't nonsense at all. It was so powerful, I just had to tell everyone in case anyone else thought it was nonsense. It's real guys. This is really real. I don't know what is happening, but it is definitely real.

Now I didn't see that coming. Of all the things that can go wrong (or right) in this activity, and there are plenty, that was one thing that I had not anticipated. And after Garrett spoke, the scepticism that I would normally expect to continue to feel from about a third of the students throughout the activity evaporated. Every single person locked into gear and started really focussing on their partner and their experiences.

Exquisite (email) agony

Now I fully expected to be spending a lot of time with team Befuddled during this second cycle – helping them refine their approach and tackle the writing. However, I was slightly surprised by the avalanche of emails that I received from Garrett over the next week or so – a selection of which are shown below.

I understood Garrett's anxiety about the module, but I couldn't help feeling challenged by these particular emails. I had to be very careful with my responses because he made me feel incredibly defensive – and to be honest I probably could have done better with my replies – but this is how it unfolded.

> **Subject: Reading (Y3 Horizons)**
>
> **Date: Thursday, 15 November 2018 at 17:59**
> **From: Garrett**
> **To: Elizabeth**
>
> Dear Dr Hauke,
>
> I'm getting a bit lost in this week's reading and was hoping that you'd be able to offer a bit of guidance. Aside from reading with a very tired brain, there seems to be nothing in the reference paper about the LA riots. This confuses me […] The paper did not lend itself to close reading. Have I got the wrong end of the stick, the wrong paper or both? It's also concerning me how much reading I feel like I need to do for the quiz next week.
>
> All the best,
>
> Garrett
>
> **Date: Thursday, 15 November 2018 at 19:28:58**
> **From: Elizabeth**
> **To: Garrett**
>
> Dear Garrett,
>
> Thank you for your email.
>
> You are correct – the set reading is not directly related to the LA Riots, but is directly relevant to [civil unrest].
>
> The paper has been purposely chosen for close reading and for this cycle. Not every element of the paper will lend

itself to close reading – part of the skill required is identifying what you can follow up, and where you can read 'beyond' the text. This is challenging and that is why I have added a whole week to the cycle – for [reading]. The only reading required for the [quiz] is the set paper, and any follow-up research/reading of that. I do not expect you to read widely around the topic of the paper just for the sake of it. Every question in the test will have its origin in the paper.

Take a break from the paper and try to come back to it with fresh eyes. Trust your instincts when reading, the paper has been chosen carefully and intentionally.

All the best,

Elizabeth

Date: Tuesday, 20 November 2018 at 13:03:55
From: Garrett
To: Elizabeth

Dear Elizabeth,

How do we access the other groups wikis and feedback from the previous cycle?

Apologies if [this has] already been covered, but there seems to be a bit of confusion (in my team at least).

All the best,

Garrett

Date: Tuesday, 20 November 2018 at 13:10:33
From: Elizabeth
To: Garrett

I've just checked and I think I have fixed the wiki issue – could you see if you can […] see the other teams' wikis? Let me know if not and I will keep working on it.

All the best,

Elizabeth

Date: Tuesday, 20 November 2018 at 13:28:10
From: Garrett
To: Elizabeth

> Dear Elizabeth,
>
> Thank you for your quick reply; that certainly clears up most of the (mildly panicked) confusion we were enjoying yesterday! Yes - I can […] access the wikis (but not the marks - is this intentional?)
>
> Thank you.
>
> Best, Garrett
>
> **Date: Tuesday, 20 November 2018 at 13:30:08**
> **From: Elizabeth**
> **To: Garrett**
>
> Dear Garrett,
>
> Yes, you should be able to see the wiki, my annotations and my public comments (in the comment sections below each page). Detailed feedback and marks are private to each team – but there is nothing stopping you asking the other teams if they are willing to share these.
>
> All the best,
>
> Elizabeth
>
> **Date: Tuesday, 20 November 2018 at 13:39:21**
> **From: Garrett**
> **To: Elizabeth**
>
> Dear Elizabeth,
>
> Okay yes, I see that now! Quite well hidden I must say.
>
> Thank you,
>
> Garrett

I would have been very happy to deal with this volume of emails if they were directly related to the work that Garrett and his team were going to be submitting – but these emails seemed to be an excuse to delay getting stuck-in to the actual work of the cycle. Perhaps a delaying tactic, or perhaps an anxiety-fuelled psychological block to head off the (seemingly) inevitable failure and onslaught of more feedback.

And the tone of the emails sets up a pattern between Garrett and myself – a slightly tongue-in-cheek-but-nevertheless-confrontational positioning of Garrett as the very experienced student, who can't be fooled by shoddy classes and whimsical (learning) metaphor and myself as the (slightly) disorganised well-intentioned-but-mistaken-radical-who-should-know-better-but-persists-in-trying-to-convert-the-unconvertable. In fact, this had its roots in our very first meeting. We had done a version of the Christmas Spirit Quiz that you might remember we deployed with the second year students, but in this class as an ice-breaker in the first week. The students had time to find out as much about each other (and me) as possible, before completing what they thought they knew about each other and then trying to score points with their responses if they were brave enough to share them. Garrett's impressions of me were that I was

> funny, chatty, clever, chilled, doesn't mess about, all over the place

and in terms of my more formal professional identity that I was

> not from Imperial, a teacher that loves teaching, clever

The positioning of me as outsider was interesting, keeping Garrett firmly as the Imperial-ite. Reinforcing the sense that he knows how things should be done (around here) and how he should be learning (around here). I am firmly outside his circle.

I think we can ignore the liberal sprinkling of flattery – always a wise choice if you are going to show your teacher what you wrote about them – but it is also interesting that he picks up the combination of my slightly clown-like personality and haphazard presentation in combination with the fact that I don't 'mess about' – perhaps reflecting my position of authority or my attention to detail.

I fight a constant battle with myself to pull back from over-explaining, filling every pause and answering every question in the classroom. And I think that this constant checking of myself, intentional vagueness and asking the students to step in and make decisions that in other classes would be made for them, tends to come across as 'a bit all over the place' – something that for years infuriated me, but I have now

come to terms with. I would rather be a bit all over the place and support the type of learning that I really want to see happening, than appear perhaps a little more professional and (stereotypically) teacher-like and dampen these raw, challenging and hard to define learning opportunities.

And I would like to think that the not 'messing about' comment reflects my natural and easy authority in the classroom – whereas I think it probably comes from my insane attention to detail and a little smoke-and-mirrors-illusion work. Which I had pulled off with rare flair and extravagance in our first session.

What's in a name?

When the students were completing their initial learning inventories at the start of the first class (self-evaluating their confidence using a range of skills and identifying what they most wanted to work in this module), I had made myself a little seating plan of all the students. And while I cannot instantly memorise fifty-odd names, I can memorise six lots of eight(ish) names. And so by the time the students were done with their task, I had got about twenty five or so names that I was definite about, a further fifteen-ish that I was confident about and a few more that I thought I could guess by a process of elimination.

And so as we moved into a whole class discussion in the second hour, I started calling every student that I spoke to by name. And it had an enormous impact.

The first student put his hand up to contribute, and I said 'Yes, Amir?'. And there was an audible gasp. And Amir asked 'Wait, how did you know who I was?' – and I smiled and replied that I knew because he was in my class. And after the third or fourth correct name, the students challenged me to go round the room. And if there is one thing I love, it is a challenge.

I, of course, accepted – on the condition that the students agreed to look the most like themselves that they possibly could. I began seemingly randomly. Not going student to student as they were sitting, but ticking off my definites, and then my confidents, and then my less confidents, and then my process-of-eliminations, and then finally there were two. And for the life of me, I could not work them out.

But then I went back to my seating plan in my head, sort of reversed my initial elimination process, and figured out which names were missing from the individual teams and nailed it.

Too in your face?

Now this clearly impressed the students. It was very flash and I was definitely showing off. But unless the students were wearing the same hats, clothes and hairstyles, and sitting in exactly the same seats for the rest of the module, there was still some work to be done on the names. And so this was also a slight falsehood.

I had never met the students before, I got my register of names only hours before the class started and had never taught or even met these students before. So what was I playing at, pretending that I knew their names?

"Every person lives in a world of social encounters, involving him in either face-to face or mediated contact with other participants. In each of these contacts, he tends to act out what is sometimes called a *line* – that is, a pattern of verbal and nonverbal acts by which he expresses his view of the situation and through this his evaluation of the participants, especially himself. Regardless of whether a person intends to take a line, he will find that he has done so in effect. The other participants will assume that he has more or less willfully taken a stand, so that if he is to deal with their response to him he must take into consideration the impression they have possibly formed of him." (Goffman, 1967: p5).

In this particular encounter, I built an illusion based on a growing truth – some of those names I did know for sure, and never doubted from those first moments and encounters with the students. Most of the rest of the names I knew for sure by the following week. Only a few persisted in my nether-memory of being one of the two or three names that repeatedly came unstuck, but that I could work out each time I needed them by recalling all three unstuck names, all three unstuck faces and manually reassigning them on the spot.

So what was my 'line'?

Well, knowing about my 'all over the place' tendencies, (and persisting in appearing this way because I suspect the hidden value of those tendencies), I risk coming across as ineffective, inefficient and perhaps unsuitable to steer our communal learning. Unsuitable to be making the rules of our engagement, unable to deliver the results these students are expecting and misguided in thinking that my alien territory is fertile ground for these students.

And so to subvert this, a counter narrative is possible. I may be 'all over the place', I may present an unconventional learning environment, make unprecedented demands on the students and only offer my inane, nonsense-filled emotional and experiential guidance and feedback; but I also offer something else. I offset my lack of (perceived) conventional expertise in the classroom, with my experience and knowledge of how students might think and feel about things – especially of how Imperial students who have selected to take my module might feel about the types of things that I am going to ask of them.

I prioritise learning their names – hoping to demonstrate that every student is important, has a voice and an implicit value in our learning. That every student has been noticed and known. Hoping to demonstrate that I care, personally – emotionally and experientially – about the success of every student. And that I am not neglecting this success in my approach – it is at the forefront of my mind. We are just using different metaphorical maps to get there. And finally, I show – in my insane and flashy showing off – that I do care about what they think of me, I do care about their feelings and I do care about making a success of what we embark upon together.

And so what of Garrett's line? Well, we've considered that Garrett appears to create a self-image of the 'most experienced student'. Taking a position of superiority in our encounters. Pushing me out of his known-world, his 'Imperial'. But for what purpose? Perhaps to minimise the risks of engaging in something so 'other' to his own experience of being a student at a STEM institution, of pursuing excellence by knowing the most, of learning the most from the most expert of disciplinarians. Minimising the risks of taking me, the cuckoo-in-the-nest, seriously. I mean, what if he took me seriously, did what I asked and then didn't get a good grade? Or looked

silly? Looked less-than-expert? What if he gave me space, invested time in me, and it didn't produce the goods?

And so, for the moment, until he sees evidence of his own growth and learning, he will hold me apart. Challenge me. Push and pull at me. Perhaps looking for a way in, perhaps looking for a way out.

Building on the 'not nonsense'

But hang on a minute. We've had the 'not nonsense' moment. Garrett saw meaning in my madness, didn't he? He was moved by the activity exploring injustice. So aren't we home and dry? Isn't Garrett fully onboard now?

Well, not quite. We've opened the door to home and dry, but I'm not sure that Garrett thinks he's really 'learned' anything yet.

Over the next two weeks, the teams continue working through the cycle on the LA Riots. And this is when I am really hoping to see some good engagement from Garrett and team Befuddled. I want to see them asking for feedback. Constantly calling me over to their group in the classroom. But it doesn't play out quite like that.

We have a rule for this class, that the students should be mature enough to make decisions about their own learning. So if they would be more comfortable working together in another space (especially given our uncomfortable and soulless classroom), they can go off and work in the library, café or common room. As long as they come back and access feedback from me in the classroom. In fact, they can even come to class and let me know that their team prefers to work at a different time of the week, show me their progress, get feedback and then leave. And it has always worked really well. No student or team has ever taken advantage of this rule or used it as an excuse to avoid their work. And in fact, many students have commented on how this element of trust in them encouraged them to work harder for the class.

And so it was not unusual to me that team Befuddled slunk out the back door of the classroom after our opening discussions and reminders. I was however, a little taken aback when my email pinged and I received this:

> **Subject: Location, Location, Location**
>
> **Date: Thursday, 22 November 2018 at 17:38:23**
> **From: Garrett**
> **To: Elizabeth**
>
> Dear Elizabeth,
>
> Just to let you know we're in SAFB 164, should you want to pop in
>
> Best,
>
> Garrett

Location, location, location? Should I want to pop in? I was nearly apoplectic for a moment. But I took a deep breath and decided that this was not the battle that needed fighting. We could work on this another time. And besides, Garrett has a 'need' to hold his 'line' in order to overcome the risks of his continuing participation. I don't 'need' to assert myself or overthrow him. Yet. I can do more work from my current space outside Garrett's circle of trust and comfort.

And so I went along and popped in (well, spent approximately ten minutes searching for the room and then popped in). And was astonished and amused by what I saw. They had found an abandoned seminar room that was set up rather like a command centre or the White House Situation Room. The lights were dimmed, the students sat in a semi-circle, laptops on laps, around a giant screen that showed their work. The screen continually gyrated, lurched and flashed with colour as every team member simultaneously put in edits. Whilst they were concurrently discussing other edits to make. I really felt like the outsider in this situation (room) and slipped quietly into the back. Suddenly they noticed me, and were genuinely surprised and pleased that I had come to find them. They asked for my feedback, which I struggled to give whilst they continually edited around my suggestions. I asked them to stop, read aloud as a group and think quietly, with less editing for a few moments.

And they made some great suggestions themselves. We discussed, we disagreed, we agreed and we made progress.

The following week, deadline day arrived. And class unfolded the same way.

> **Subject: Room**
>
> **Date: Thursday, 22 November 2018 at 17:38:23**
> **From: Garrett**
> **To: Elizabeth**
>
> Dr. Hauke,
>
> Just to let you know we're in SAFB Room 280
>
> Please come and visit
>
> Best,
>
> Garrett

A little more formal – perhaps Garrett had embarrassed himself with the last email. Rather than calling me Elizabeth, Garrett addresses me now with my title. Perhaps he had found my feedback more useful than he had anticipated and had a little more respect for my input? This time, rather than offering me the chance to help them, they are directly asking me for help (well, they ask me to 'visit', but I'm extrapolating). Subtle. But huge.

A step forward, albeit requesting me to leave the classroom (and the rest of my class), to tramp around looking for a random room on another floor. And so I dealt with the rest of the students first, before telling them where I would be and when I would be back and setting off once more to find Befuddled, and Garrett.

The eureka moment

The following week was feedback week. And I was excited as hell. All the teams had made excellent progress, and there were going to be six celebratory conversations to be had. Including with team Befuddled.

Data Vignette 20: Delivering excellent feedback

Discussing feedback with team Befuddled.

4.15pm Thursday 6th December 2018

Me: Befuddled. I have your feedback.

I forced myself to walk away from the group, sitting in a circle as they read their feedback. They looked happy-ish, but not happy enough for my liking.

Me: Hey, Befuddled, how awesome are you? Like I said, totally nailed it!!

Daphne: Well, we got like 74%, which is obviously better than last time, but I think we should be able to do better than that. And you said things in the feedback that we did wrong.

Me: First off, 74% is a totally awesome grade and ahead of where you should expect to be – even as a totally awesome team – we're only on cycle 2. And secondly, my feedback is to help you improve, not point out what you did wrong. You did so much right in this cycle – but you want to improve, don't you?

Daphne: Sure…

Me: You got 74%, that's a distinction. You wrote a brilliant knowledge base. You chose an epic question, you wrote a beautiful answer, you constructed a persuasive argument and you have a solid piece of advice for improving even further next time. I think that's pretty neat!

Daphne: Yes, you're right. We're just not used to this. I mean, working on something to improve it a bit at a time. Normally we either get something right or wrong. This is different.

Me: It is completely different (dramatic eye roll). But you have just turned around the impossible. You had a devastating start, but you stuck together, you bugged me until my brain nearly burst, and you used every bit of listening, thinking and creating that you had in you to submit this absolutely awesome piece of work. Do you know what happened when I was marking it?

Daphne: (shrug)

Me: Well, I was nervous as hell. I mean what if you didn't nail it? How stupid would I look. But the second I opened your work, I could just feel it was absolutely there. And when I started reading, I nearly fell off my chair with joy.

Giggles

Me: And do you know what happened before I got to the end? I jumped up in the air and cheered for you all. And do you know what happened then? I ran downstairs and told my puppies. And then I told my husband. About my brave team of students who had a horrible experience, then worked so hard, and COMPLETELY NAILED IT!! You caused a joy tsunami in my house Befuddled!

The students were giggling hard by this point, and started talking amongst themselves about different genius details they had added, and about who had been the one who had produced the turning point in their work – generously attributing it to each other rather than claiming the fame and glory.

I turned to Garrett who was seated right beside me, to my left. He had been (unusually) quiet through the whole conversation. He hadn't joined in the hubbub around him and seemed to be in a world of his own. I gently shoulder bumped him and said 'hey'.

Data Vignette 21: Sealing the deal

Discussing feedback with team Befuddled, a private aside with Garrett.

> 4.25pm Thursday 6th December 2018
>
> Me: So. Garrett. (almost whispering). I'm curious. Did you learn anything yet?
>
> Garrett: (Taking a deep breath). Yes. I have learned so much already. But nothing that I thought I was going to learn. I can't even describe what I'm learning, I don't really know what is happening. But I am learning so much. It's really confusing.
>
> Me: It's OK. I know it is. But I'm happy you're learning something…
>
> Garrett: I mean, I've been talking to my Dad about it. And he says, 'well you have learned all about Chernobyl and the LA Riots…' and I said, 'Dad, I taught myself about Chernobyl and the LA Riots. But I learned other things at the same time.' And I can't describe it. We do all these things together, and we work all backwards and sideways, never learning the thing we are learning. But learning other things.

> Me: I know, it's really tricky. But do you think it is helpful to learn these other things, even if you can't quite pin them down yet?
>
> Garrett: Yes. I mean it must be. I keep trying to work it out, but I can't…
>
> Me: …yet. Don't try so hard. Just keep joining in, keep getting lots of feedback – and try to enjoy it along the way.
>
> Garrett: I'm definitely enjoying it, that's what I said to my Dad. 'I shouldn't like this, I shouldn't be learning like this. It's terrifying. But I am figuring out all these things, and I keep realising all these things. And as long as I try not to worry about it, it's pretty cool'.

And we're back to the circles and lines

It might be helpful to pause a moment here, and think in slightly more abstract terms about Garrett, his known world, his tight little circle of comfort and trust and how this might be shaping our encounters.

Garrett's experience of successful learning in other settings has led him to believe that learning is about accumulating facts, delivered by a knowledgeable and expert teacher. The teacher knows more than the student, the teacher imparts some of their knowledge to everyone, more to those that demand it, but retains their pedestal of (usually) disciplinary expertise.

And here I am, professing to know nothing, asking him questions, asking him how he's going to figure things out, asking him to then tell me where he has found his information, tell me how he's developed knowledge from that understanding, and asking him to write something using that knowledge but based on feeling and empathy rather than precision and process.

There is no right or wrong in this foreign world, only differing perspectives, impactful or less impact-less, meaningful or meaningless. Not everyone has to learn the same thing, not everyone has to learn in the same way, and not everyone has to come up with the same answer. Two completely different 'answers' might be equally valuable. Conversely, two identical answers might be received completely differently – representing different value to the negotiation between me and the student.

So let's go back to Garrett and his circle (figure 21). At the beginning of the module, we can imagine Garrett's circle being quite distinct, round and – both – protective and limiting. Stepping outside this circle is a huge challenge. He is willing to consider stepping out, but it doesn't result in action outside his inner circle of safety. The space occupied by myself and the module however, is more nebulous. The edges are a little less distinct and predictable.

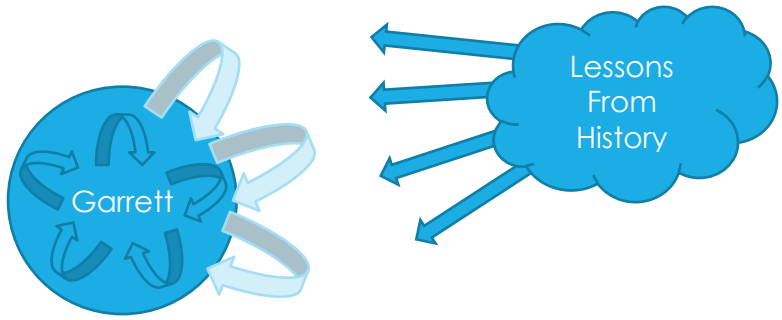


Figure 21: Garrett's starting point

As time passes, and we maintain our encounters, Garrett is increasingly enticed towards a riskier engagement with the module. His circle begins to develop – it bends and warps a little towards the space where the riskier encounters are occurring (figure 22). This extension becomes a part of Garrett's knowable world, but is still experienced as a risky place to be. However, this space in itself can act as a stepping stone for Garrett. Allowing him to extend himself and expose his vulnerable student self to even greater risk. Always reaching towards an encounter with the module and with me.

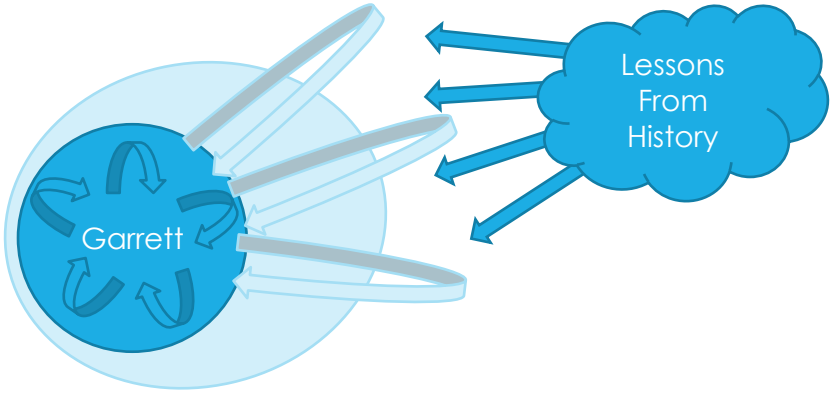


Figure 22: The Development of Garrett's Circle

If we consider these diagrams a little more, we begin to realise that actually, Garrett's inner circle, his extended circle or even the space occupied by myself and my crazy module is not where the important action is taking place. Rather, it is in the gap between. It is in the scouting missions, the forays, and the expeditions into unknown territory that change seems to be taking place. It is amongst and inbetween(st) us that startlement, adjustment and growth is occurring. If we visualise that on our diagram it might look like this (figure 23):

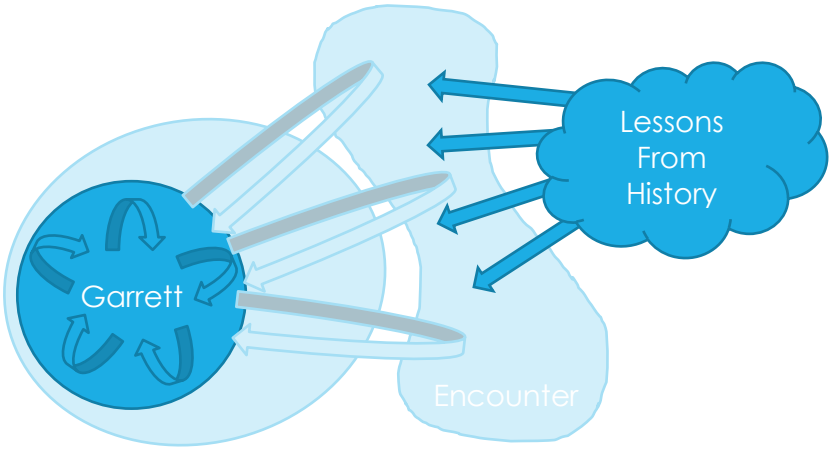


Figure 23: Locating the true encounter

Third Space

> *"I must forsake "home" (comfort zones, both personal and cultural) every day of my life to keep burgeoning into the tree of myself. Luckily the roots of my tree are deep enough […] to support a widespread branch system"*
> *(Anzaldúa, 2015: p67)*

Looking at these diagrams, it seems as though there is a bone fide, tangible and practical space between Garrett and the module. A space that is neither Garrett nor the module. Neither Garrett nor me. A space that is not the safety and security of home (Garrett's inner circle), that is not simply a result of his personal growth and extension (Garrett's outer circle) and that is definitely not Garrett's normal working space (Imperial). But neither is that space strictly the module or my own working space. It is distinct and individual space.

Thinking in pragmatic spatial terms, with awareness that spaces are culturally defined but nevertheless exist as defined areas, places of entanglement or encounter, geographers such as Oldenburg (1989) define spaces such as we are discussing here as 'third place or space'.

Oldenburg (1989) explores this in the context of life in small town America. Americans typically have a first place (their home), a second place (where they purposefully spend their days outside of the home, such as places of education and workplaces) and then they have a third place that is neither home nor work. It is occupied in a less purposeful way and offers respite, nourishment and enrichment. This might be a coffee shop, book store or barber shop. A communal space – for engagement and encounter with the non-family, non-colleague.

Now while there are some parallels with our own space for encounter above, I am not sure that our 'third place' is a place that Garrett is choosing to inhabit for the purposes of respite and nourishment – perhaps it can become that later, but at the moment this place is more challenging and uncertain.

We might consider our no man's land of encounter to be "the space where ties are severed or […] the occasion for new and varied forms of bonding. To some extent, ruptures, surfaces, contextuality, and a host of other happenings create gaps that make space for oppositional practices which no longer require intellectuals to be confined to narrow separate spheres with no meaningful connection to the world of the everyday […] a space is there for critical exchange […]. This may well be the central future location of resistance struggle, a meeting place where new and radical happenings can occur." (hooks, 1990: p31).

Soja (1996) brings a postmodern and critical approach to notions of space in his perspective on third space. He describes first space as the real or material world around us, second space as the imagined and interpreted representation of that space. Third space is not a distinct dimension, but rather takes elements of both first and second space and applies a further level of criticality to our understanding of space, and its potential to house, nurture and create meaning and action. Before third space can really be explored, Soja (1996) argues that spatiality must be recognised as part of a "trialectic of being" (p71) – with space being brought into relief against the established critical theoretical perspectives of sociality and historicality. Further, third space itself can then be explored as a trialectic of its own, drawing on our experience of spatiality in terms of "lived", "perceived" and "conceived" (p74). These layers of criticality move the idea of third space from the pragmatic, practical recognition of a place or space (even if that space is non-material, but is represented by temporality or opportunity) to a far more complex notion of social construction, culture and power.

Soja (1996) has been highly influenced by Lefevbre's 'The Production of Space' (1974), importantly taking from this the idea that third space is not a space between (as we have described it above), but is a space beyond. We'll come back to this in a moment, but the other key theorist that might help us further explore this idea of a third space is Homi Bhaba.

Bhaba (1994) talks about how the dominant hegemonic state (for him the West, but perhaps for us the white, middle class teacher) 'others' the non-dominant (for him the rest of the world, minorities or non-dominant cultures; for me students, often non-

white, non-middle class). This 'othering' is inherently fixed and categorical – it is the self – and – the other. When the dominant state then tries to alter this, by considering and being 'inclusive' of diversity, this movement only occurs in the context of othering and the established hierarchy. There is the self, and then a series of 'other' categories within which the other is further marginalised and contained.

Instead, we could consider the 'other' to be 'another'. This places us within the range of possible 'others', as just one of many. In this way the hierarchy is broken down. Bhabha says that 'difference' must be recognised instead of 'diversity', as diversity acts to maintain the privilege of the dominant position.

Now although these ideas seem hugely rich and complex, when we go back to the situation with myself and Garrett, this is actually not quite the position we've observed. There is no doubting my position of power in the classroom, my white middle class teacher-ness. And I am undoubtedly 'othering' Garrett and his fellow classmates when I consider their attempts to engage with the module and the reasons why it might be difficult for them to do so.

However. There is also the idea of Garrett's power. His position of 'experienced student'. Imperial-ite. Othering me and my position of 'slightly-all-over-the-place-radical'. And I am definitely in the minority in this classroom. The numerically dominant culture is that of the student and the context is of typical-Imperial-College-learning. So on numbers, the power lies with the students, and we have seen that there is active 'othering' of me in the classroom – for example Garrett declaring me 'not from Imperial' when I have actually been at Imperial for longer than any of the students, having studied there myself as a student in 2008-2009 and then worked there since 2010 and in my current role since 2012. These students only joined the College at the earliest in 2015, and most not until 2016.

So these ideas about power, identity, dominant cultures and othering are actually flowing in all directions. Rushing around, butting up against each other and splashing about, boiling and roiling like the whitest of rapids. We are not drifting down a calm side water here – we are navigating something ferocious, risky and confusing – but at the same time exhilarating. Maybe it is not our varied claims to

fame and power that are important, not our starting points that should be considered relevant, but rather the spaces where we clash, explore together, reimagine, negotiate and break new ground that matter most. And I would hope that in all this confusion and melee it is difference rather than diversity that is engineering our encounters.

"All forms of culture are continually in a process of hybridity. But for me the importance of hybridity is not to be able to trace two original moments from which the third emerges, rather hybridity to me is the "third space" which enables other positions to emerge. This third space displaces the histories that constitute it, and sets up new structures of authority, new political initiatives, which are inadequately understood through received wisdom… The process of cultural hybridity gives rise to something different, something new and unrecognisable, a new area of negotiation of meaning and representation." (Bhaba, 1990: p207)

Moving beyond between

So, how do we get back to the idea of beyond rather than between? Our visualisation of Garrett's circle has so far demonstrated a 'between' space. Is there a way to reconceptualise this as beyond?

I think that we just need to reconsider our ideas with the addition of a temporal dimension. Our diagrams are rather static snapshots, and although by sequential modification we can see development occurring, it would be nice to build this parameter in from the start.

So rather than a circle, let's imagine Garrett's safest, first place home territory as being a band (Figure 24). And let's imagine that rather than the module and my own presence being a second defined space (as it was we had woolly edges on this space as we recognised it as less distinct), it is a direction of travel – or a negative force that is drawing Garrett away from that band like known place. And over time, we will see Garrett's band broadening out. We might see risks being taken. But what else?

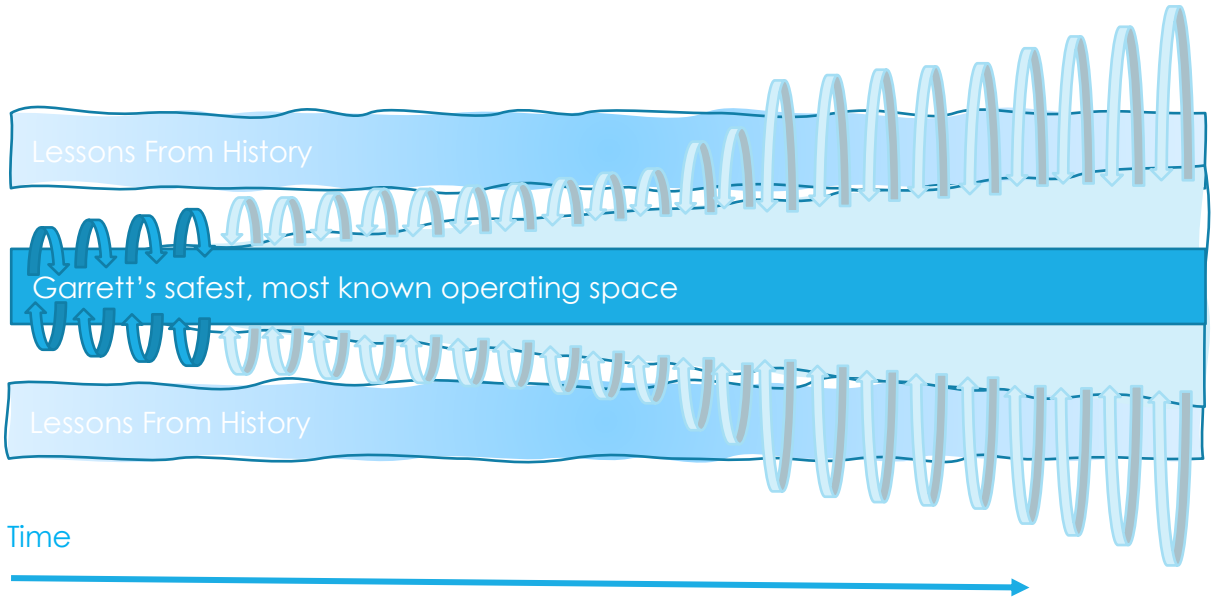


Figure 24: Moving into the beyond with Garrett

Each of these curly arrows represents an encounter. A comment, discussion, email, complaint, exclamation, acceptance, acknowledgement, attempt – between Garrett and myself, the parameters of the module and the learning that I am advocating. At the start of the module, these encounters originate from Garrett's comfort zone – his first place, his known, experienced and safe learning space. They move Garrett, and draw me, into the space between us. A space that is neither Garrett nor me. As this space is developed and expanded by moments like the LA Riots its-not-nonsense moment, Garrett's encounters can originate and be supported from this extended and increasingly accepted space. Over time, these bring Garrett directly into our shared space – that delineated by the module, my rules and my direction, but shaped by the coming together of teacher and student.

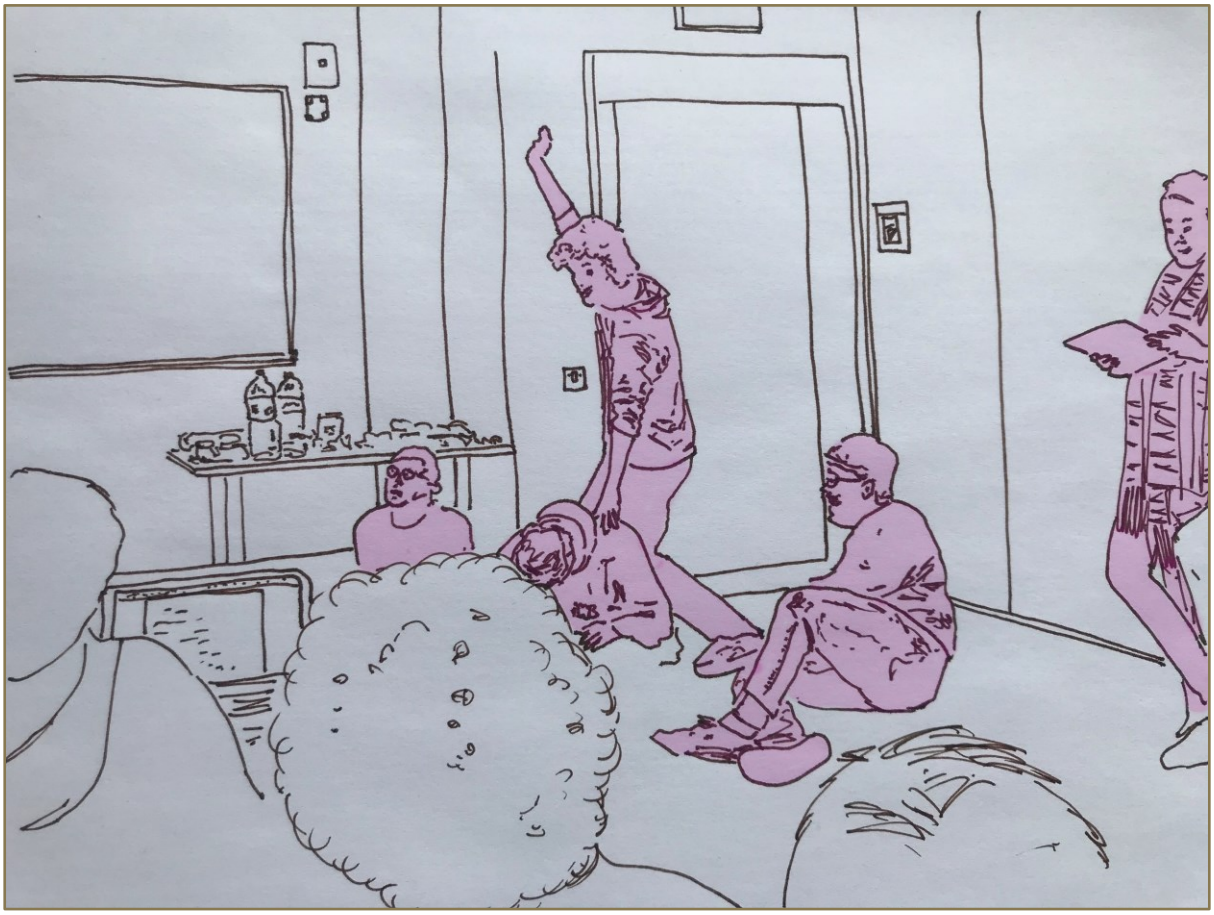
As yet more encounters are weathered and we move still further along, we see Garrett's arrows taking him past our inbetween space, past our cohabitation in the module space and into the beyond. To an unknown, high risk and potentially high reward space. A space that requires Garrett to navigate for himself, build for himself, know for himself and be for himself. An authentic space.

The proof is in the (dance) pudding

In our final cycle of the term, in the class before Christmas, the students were given the opportunity to present their question and answer as a performance. The rules were that they had one hour in their teams to prepare. And the performance could

be anything they liked – but it could not involve formal presentation or powerpoint. I didn't know what I was expecting, but I was overwhelmed with the response. We had a play, a mime, a quiz show, a debate and a television news report.

But team Befuddled went a step further. Under the influence of Simon, a musical theatre enthusiast, Befuddled danced their question and answer on the topic of the Lake Nyos explosion, complete with soundtrack, narration and four, non-dancing fairly conservative Imperial students dancing. Garrett, Damo, Donald and Adnan danced a lethal explosion, the arrival of engineers and the construction of a safeguarding system to prevent such a future disaster.



Data Image 23: Garrett and Befuddled dance their answer

A tale of two encounters

But wait a little old minute, we've spent all this time thinking about Garrett and team Befuddled, but what about the other five teams in the class – Ali's Crew, Post-Truth, The Papa's, The Bombshells and The Black Adder? How are they getting on? Were

they encounter free, or could they be contributing something to our exploration here?

Well. Ali's Crew were very self-sufficient in their engagement with the module structure and requirements, but were adept at asking for feedback. I wish I could include more about them here, because they were an amazing team and were exceptionally good at looking after each other. They had some strong personalities, disagreements were frequent, and they had one team member with depression who found it hard to join in. But they made it their mission to never leave that student behind. In fact, they met before class, they went out for meals after class, they brought treats to class for all the other teams. They literally broke my heart with their kindness and spirit. And they also included me in their team. They sent me tweets and photos of their team exploits. Not to show off, or demonstrate their excellence, but really to include me. I'd often get home from class in the evening, and my phone would be pinging with photos of them in a restaurant, or in the cinema, or still on campus working together over a takeaway. Sometimes, I'd even be photoshopped into those moments amongst them.

Post-Truth were a very serious group with a dramatic cultural divide in the team. This challenged them greatly when it came to formulating arguments and writing together. But, rather like Garrett, they deluged me with emails – except in their case, all about the nitty gritty of their work. They asked for feedback often, and with enough time to allow them to think about it and apply it to their final submissions. They made excellent progress and worked well together despite their differences.

The Papa's ended up being a small team. They worked solidly, always asked for feedback but had some natural writing talent. They worked hard, there was no drama, and they often submitted early as they were very organised and worked prior to our classes.

The Bombshells were a team that were taking the class for extra credit, and they were the least engaged team. They didn't need to achieve a certain grade – or even to pass the module. They were a little frustrating to work with – they arrived late, they left early, they asked for feedback but then ignored it. I finally got through

to them by giving them just one piece of feedback at a time and sitting with them while they worked it through and incorporated it. I was surprised to find that all the team members stuck out the module, and completed the final essay well. They suffered a little from their lack of engagement early on, but did well enough. I think if I had pressured them to engage more earlier, they would have left the class – and on balance, they gained a lot from their rather fragile and intermittent engagement.

And so we come to The Black Adder. A team of sporty boys. Who were always coming from, or going to, sports fixtures (and so were either wearing suits or sports kit in every class). Who always had to leave early, every time coming and (very politely) asking my permission. Who worked together quietly in class. Who appeared very organised.

They often sat in pairs, having delegated different tasks within their team – never quite coming back together again. They never asked for feedback, and whenever I asked if they had any questions always said 'no'. They read and responded to the feedback in their diaries, but their progress quickly plateaued. They were happy with the 'way' they were working, and didn't want to strive for more. And no amount of my enthusiasm or energy seemed sufficient to crack the shell of their polished, organised approach.

I found them very difficult to get to know. Very difficult to care about. And with some of the other teams taking up a lot of my time, it was quite tempting to assume that they knew what they were doing and leave them to it. But this is perhaps where my researcher brain interfered with (or enhanced) my teacher brain. In previous ethnographic work (Hauke, 2016), I have found that the students that grab your attention are like very bright lights. And they dazzle you, and cast other students into the gloomy darkness outside their own spotlight. And perhaps, that is why in my dealings with Garrett, I also looked to Daphne quite a bit. Daphne was definitely at risk of being dazzled out of focus by Garrett, but she needed a lot of reassurance and attention from a teaching perspective, and drew my researcher eye too.

And within the wider classroom, the most shadowy, out of the spotlight team were definitely The Black Adder. They actively deflected my attention (and attempts to

shine a light on them). And it was incredibly tempting to look away, let them get on with their work and ease my own load a little. But maybe because of my teaching instincts, or more probably because of my researcher instincts, I persisted in holding The Black Adder in my attention, and within my thinking and imagination about this class.

And as I mentioned, their work had quickly plateaued during that first term, they knew how to do what they were doing, and they were happy enough with that. I wanted more from them, I wanted them to engage more, to push more and to explore their own potential. And the contrast between The Black Adder's approach and that of Befuddled was never more apparent than in our first cycle after the Christmas break.

The battle of the maps

We were exploring the Indian Ocean or Boxing Day tsunami of 2004. This was an event of unprecedented scale and impact – and that is something that I try to direct the students to explore. Rather than producing a written knowledge base in this cycle, I asked them to create it in physical form. I wanted them to make something – anything – that showed their appreciation of the scale of this event. While I was describing the task, I kept throwing my arms wide, gesturing expansively and heavily hinting that size and ambition really did matter when it came to this task. I wanted to be able to see and feel the scale – not just read a bunch of numbers.

I had brought almost the entire contents of my 'special' filing cabinet to class (the one that contains no files, but lots of craft materials) and placed this in the middle of the room. The students had two sessions to work on this – one to plan, play with the materials and reserve/order materials for the second week, and the second session to actually make their physical knowledge base.

Befuddled gathered some materials, huddled around a table and began thinking out loud. Garrett had an idea. Daphne had an idea. They debated them, explored them. They made little sketches and thought about the materials. They were very taken by the ribbon, and were thinking of working on a map. Garrett really liked his own idea, but Daphne's was more creative (and risky). She thought their knowledge base would have more impact if the map were suspended from the ceiling –

making you look up to see the map, with 'data' hanging down off the map on different length ribbons. So that you were walking underneath with the data touching you, falling around you. The others liked the map, but weren't too sure about the whole upside down aspect of it. I gently joined their discussions and enthused over the upside-down-ness. I could sense something special in the offing, and I wanted to lend them the extra bravery they needed to go for it. Planning continued (Data Image 24), and they placed their order – one large blue sheet. Garrett had stepped aside and thrown his support behind Daphne's idea.



Data Image 24: Garrett sketches Daphne's idea

I was feeling super excited about this activity – another group was busy figuring out how to represent different height tsunami waves in origami – there was just so much energy and creativity in the room. And then I wandered over to The Black Adder.

The team had taken a small sheet of blue tissue paper (not even regular paper or card), and blue-tacked some string onto it in the approximate shape of the world.

And stuck a couple of post-it notes to the map, dense with writing (Data Image 25). As I approached they looked up, announcing that they were 'done'.



Data Image 25: The Black Adder's 'plan'

Data Vignette 22: Yeah, we're done

Discussion with The Black Adder team.

> 5.20pm Thursday 17th January 2019
>
> Dominic: Hi. Yeah, so we're done now. Shall we leave this here? Do we need to come next week if we've already finished?
>
> Me: Well, let's take a look. So, this looks like some good planning here – how are you going to present this?

Dominic: Well this is it. We've finished.

Me: It's a great start - (wrinkling nose) but I don't think you've finished yet. Do you remember when I set the task, I asked for scale and I waved my arms around. You have the whole room to play with. And I asked for ambition – and you have a lot more time to play with. So how can you take this to the next level?

Dominic: Well we're a bit limited by the size of the paper…

Me: Why is that limiting you? I love your idea of using the string to create a map – that's brilliant. Maybe you could scale that up to making your map using the climbing rope over there. Perhaps instead of using the paper as your canvas, you could use the floor!

Dominic: But there's chairs everywhere. And then we'd have to make it fresh next week when we arrive in class.

Me: I know, it's like I thought of that in advance.(sarcastic face) This week is for planning – like you've so expertly done here – and next week is for creating the final version. With scale (arms waving again) and ambition! Oh my goodness, you're going to do something great here, I can just feel it!

Dominic: Hmm…

And so we finished class. Everyone departed and I wondered what would happen the following week.

120 minutes of non-stop action

Befuddled arrived early to class. Garrett was leading the way, and the team were organised with military precision. We unpacked the sheet, Garrett started drawing the map in black felt tip pen (which in itself was an impressive feat), while every other team member cracked on with their pre-assigned task. Someone was cutting out and colouring in flags for all the key countries. Someone was measuring and labelling lengths of ribbon with numbers of deaths from different nationalities. Another person was making card streamers representing more data such as wave height, economic impact and aid distributed. No one looked up from their task. No one chatted or otherwise wasted a single second of their preparation time. The only sounds were Garrett's frequent checks with different team members, ensuring that everyone was on track to complete their task. And their map was completed to the second, bang on the deadline.

The Black Adder sauntered in a little late. They were unusually chatty and animated. Scott started clearing a section of carpet, piling chairs up in a corner (rather than stacking them neatly). Dave and Tom began laying out the rope to create a map, and Dominic and Simon were playing around with water bottles that they had cut in half and that appeared to be filled with soil and twigs.

Data Vignette 23: We totally listened

Discussion with The Black Adder team.

> 5.20pm Thursday 24th January 2019
>
> Me: The Black Adder. I see that you've developed your ideas some more – well done! What are you going to make here?
>
> Dominic: Yes, we listened to everything that you said. And so we're making our map on the floor. And we've brought these bottles.

Me: Is that mud in there? (already a bit nervous about the carpet)

Dominic: Yes, we're being ambitious. We're going to make self levelling scale markers by combining soil and different fluids in these bottles in different quantities, so that when the fluids settle there will be bands of different heights representing different information.

Me: That sounds fantastic – very creative. Just be a little bit careful with the cut open bottles and the carpet. What fluids are you using and are any of them hazardous – do I need to be worried about you guys?

Dominic: Don't know yet. We've got water, oil and soil so far. But don't worry. Well only make a mess if we have an accident…

Not feeling terribly reassured I left them to it. Turning back a moment later to the sound of hysterical laughter, I see Dominic jumping in a huge puddle on the (carpeted) floor where someone had knocked over one of their bottles (Data Image 26). There had been no serious attempts to get the bottles to work with the different fluids – there had just been random decanting (and spilling). And now there was Dominic, jumping in his puddle. In his suit. The perfect clash of man and boy.



Data Image 26: Dominic jumping in his puddle

A little disappointed, but not surprised, I handed them my emergency roll of blue paper wipes and walked away. Dave was looking a little embarrassed, and when I turned back a few minutes later, Dave, Scott and Tom were actually trying to complete their map.

And so, at the end of the task, we had some amazing knowledge bases. Befuddled didn't even need to present their map. As soon as it was hoisted up to the ceiling, the rest of the class were drawn to walk underneath. Gazing up at the map, experiencing the data in ways that I could only have hoped for when I set the task (Data Image 27).



Data Image 27: The allure of the upside-down

So what of The Black Adder? Well, they completed their floor map. It was a little soggy. They had added some data as a last minute attempt to salvage some dignity.

But then they actually then made a very interesting point as they presented their map. Dave brought up the issue of the lost generation – the high numbers of deaths of young people meant that the economic impacts of the tsunami would continue beyond the event itself – people who were previously working and had lost their lives would no longer be contributing to the economy. They would no longer have families, who would themselves have gone on to become contributors to society. The impact is not just measured in material destruction and lives lost, it is measured in opportunities and potentials that have been lost. I found this quite moving, and it led to a brilliant discussion amongst the rest of the students who had not considered this aspect.

The Black Adder, despite their efforts being draped in cynicism, had pushed themselves. They did create something that communicated scale, and they demonstrated some excellent research and thinking in their discussions. Just as Garrett needed to offset his risk of engagement behind criticism and complaint, this team, and especially Dominic, needed to offset their risk – using childish behaviour and offhand-just-about-compliance to mask their genuine-but-well-hidden desire to achieve more. And although I was not particularly aware of it at this moment in time, this was the first chink in their collective armour. I could see daylight between the aspirations and attitudes of students like Dave, Scott and Tom and those of Dominic and Simon.

We'll let Garrett have the final moment in this particular activity (Data Image 28). He learned a huge amount from this task. He was able to allow someone else's idea to be taken forward instead of his own. He honed his (already pretty impressive) leadership and team management skills. He pushed himself and his team to absolutely maximise their potential – there was nothing further or additional this team could have done to improve their final map or to make better use of their time. They were astonishing to watch and until the final second, I wasn't sure they would make the deadline. Garrett took the big risk and won the big reward. His own satisfaction and sense of accomplishment. The unabashed adulation of the whole class, who were completely astonished by the map. And an excellent grade and very positive feedback from me.



Data Image 28: The moments after the (gargantuan) task before

Closing the circle

Over the weeks that followed a sense of peace and collaboration fell over the class. Garrett was no longer confrontational, he managed his anxiety in new ways – namely by constantly seeking my reassurance and attention.

Emailing me in advance of class to let me know that he was on his way (I mean, from my perspective, why wouldn't he be on his way, and thank goodness not every student emails me to let me know they will see me ten minutes later in class).

Frequently asking for feedback (as he should).

And every week leaving something behind in the classroom (a coat, a bag, a hat) – so that every week at the end of class I was asking – 'whose is this please?'. And 'oh Garrett's on his way back to collect it and would like me to wait?'. 'Oh'.

And so there were these frequent moments of reassurance, of holding Garrett's anxiety. A structured and high maintenance need for attachment. One leaving

behind in particular, summed up our whole shared experience. The students had borrowed DVDs of the film The Impossible (about the Indian Ocean tsunami) to watch in their teams, and Garrett had just returned his team's DVD at the end of class.

> **Subject: Today**
>
> **Date: Thursday, 24 January 2019 at 19:16:57**
> **From: Garrett**
> **To: Elizabeth**
>
> Hi Elizabeth,
>
> To my great surprise when I ejected my DVD drive just now it shot out The Impossible, which means that I must have put a treasured copy of Modern Family in the case I gave to you. I'm at [another campus] tomorrow, but could I pop by your office next week to swap them over?
>
> Apologies,
>
> Garrett
>
> **Date: Thursday, 24 January 2019 at 19:29:49**
> **From: Elizabeth**
> **To: Garrett**
>
> Hi Garrett,
>
> No worries, is Monday afternoon any good?
>
> Well done today, your team made an awesome map. I got it out in the office to show my colleagues.
>
> All the best,
>
> Elizabeth
>
> **Date: Friday, 25 January 2019 at 13:16:10**
> **From: Garrett**
> **To: Elizabeth**
>
> Hi Elizabeth,
>
> Monday should be perfect, thanks.
>
> Feel free to enjoy the Modern Family DVD over the weekend (I think it's season 5)...!

> Thank you, we were all chuffed it came together so well.
>
> Best,
>
> Garrett

All the teams were now working steadily, making progress in their own ways.

A few weeks later, and we were finalising the written questions and answers for the following cycle – this time looking at the BSE crisis (mad cow disease) in the UK. We had been unable to access our classroom, and The Black Adder were working together sitting around a circular table in a nearby café. Whereas in the classroom, they normally worked in pairs, physically separating themselves by moving their chairs apart, here they were forced to sit together.

We had developed a shared frustration with their lack of progress, and I had assured them that we would break through and move their writing along in this cycle. I had given them some feedback already and was returning to see if they had managed to implement it.

As I approached their table, I could see Dominic standing and then pacing around the seated team, circling their table, leaning in and dominating their discussion. With some fortuitous timing, I neared the table as Dominic was around the far side of the circle, and I was able to slip into his seat. Dave had his laptop open and was making edits to their writing, while Dominic rather aggressively shouted down anything he didn't like or didn't want to consider.

I made some suggestions to Dave, and he seemed keen to add them to their work, but Dominic immediately told him not to. I asked Dave if he would mind if I took over his laptop, and he pushed it over to me. I removed their weaker points and unnecessary passages, pasting them below the main piece of writing, and then handed the laptop back to Dave. Together we began to fill in the newly vacated blank spaces – using the words we had saved with the cuts to really polish, support and improve the points they had already written. We added some style and class to

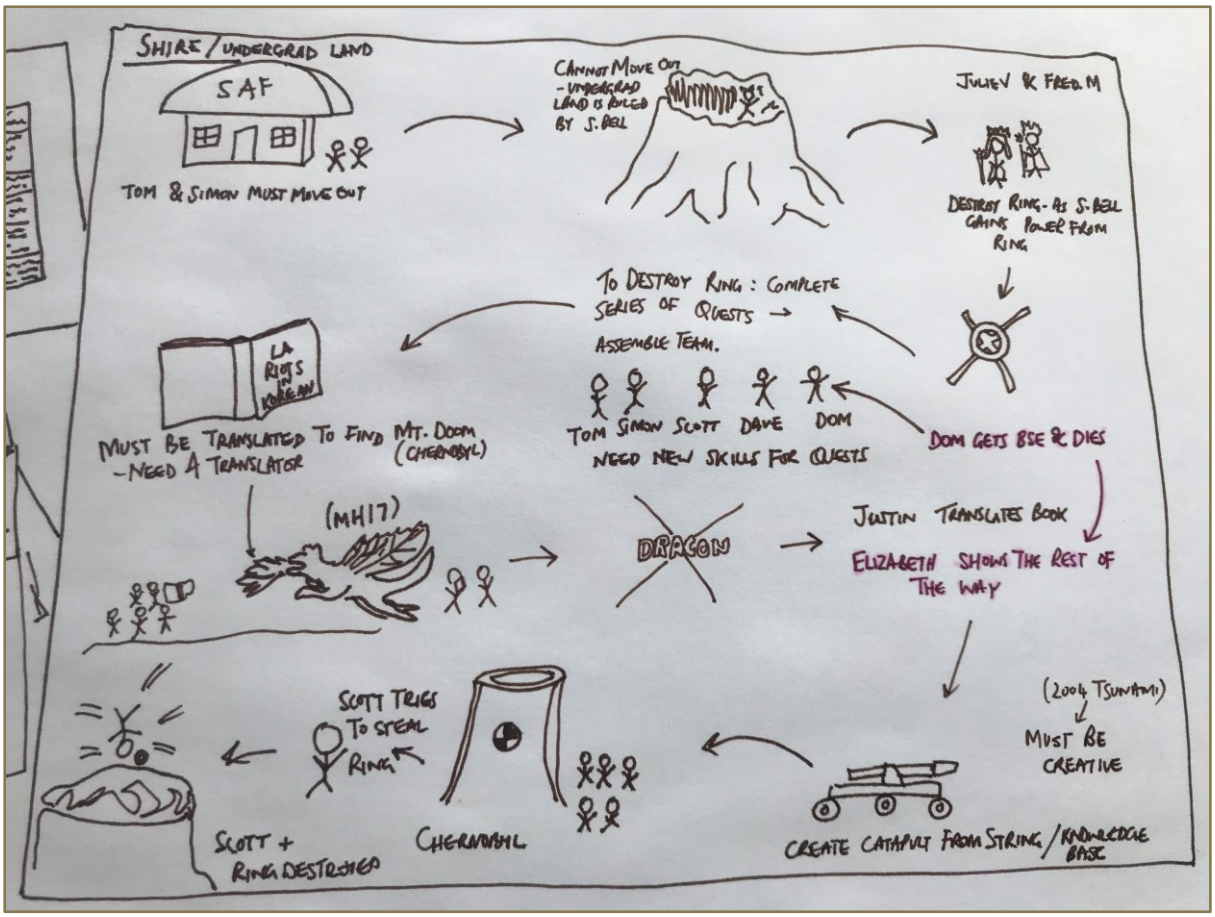
the writing – clearly elevating it compared to their previous attempts. I left a few more suggestions, apologised to Dominic for taking his seat and walked away. The team submitted their best piece of writing, got their best grade and received some very effusive feedback the following week.

It was a rather quick moment, but it had a big impact - as became apparent a few weeks later.

Before commencing the final essays which are an individual task, I wanted to complete a reflective activity with the students that would also act as a 'send off' for the teams – returning the students to their individual identities within the class. I asked the teams to write a fairy tale about their experience in the module, I gave them a list of character types to include and let them write or draw their stories however they liked on large sheets of paper.

Most of the stories had 'quest' like qualities, with the cycles that we had completed together representing different tasks to be mastered – where different things were won or lost, and characters demonstrated different skills or types of bravery. It was amazing what came out in this task in all the teams. But The Black Adder produced one story in particular that was interesting here.

Dominic had been away for this class and had not participated in the stories. Scott and Tom had worked together to create the story shown in Data Image 29.



Data Image 29: Lessons From History meets Lord of the Rings

In a styling reminiscent of Lord of the Rings, the story requires the team to overcome various obstacles along the way to destroying a ring. And shows the progress of the team through the module. In order to leave the safety of their university experience (represented by SAF – the building where the students studied) and move out into the world, they needed to defeat an enemy. To do this, they had to destroy the ring that was giving power to their enemy by throwing it in a volcano. Along the way they complete quests (learning about historical disasters) – getting clues from their classmates in other teams. And critically, when they come to complete the quest related to BSE, 'Dom gets BSE and dies' and then 'Elizabeth shows the rest of the way'.

Now I don't want to read too much into this, but somehow, during that brief moment at the circular table in the café, Dominic lost his power over the group and they were able to break their own achievement ceiling, excelling in their writing where before they had been stuck. And this was felt within the team and expressed

here as the 'death' of Dominic, allowing the rest of the team to use my feedback to improve their own performance and navigate the rest of the module more easily and successfully.

So if we think back to Garrett and his inner circle, or band of safety, how might that apply to Dominic and this team? It seemed as though the team were happy to inhabit solely their own band of operation, not needing to venture into the between or the beyond. They deflected any attempts by me to initiate any encounter – they didn't want help, they were politely accepting of my feedback and interventions, but didn't internalise or use them in any meaningful way. But perhaps it was the 'power' of Dominic that held the whole team in this position, and perhaps the rest of the team might have been willing to venture out had it not been for his controlling presence. Was there anything that I could have done earlier to facilitate this breaking apart of the cage – releasing the team to fulfil their individual potentials in different ways?

The last moments

Finally, we come to the last session of this module, and of my teaching (and research) this year.

After the stories, we had completed the individual essays. The students had followed my 'alternative' writing method – firstly identifying the single historical quirk from any disaster that fascinated them from throughout the whole module. Then thinking about why this quirk is so interesting and working this up into a potential argument about 'learning from history'. The students then select a second disaster to use as a comparison, to add depth and complexity to their evolving and fledgling argument. We do essay speed dating – so that the students practice articulating their essay idea (and therefore their argument) to other students, repeatedly in one minute spots. The students then workshop the ideas in small groups, before each student submits their argument on a post-it note. If they can't fit it on a post-it note, they haven't thought it through well enough, and they can't leave class. As soon as the post-it note is stuck to the wall, they can leave and begin drafting their essay.

We then have three eight hour 'essayathons', where I clear my diary and the students send me drafts and plans, receiving feedback from me within one hour.

Their aim is to destroy me by sending so many drafts that I cannot keep up with them. In a class of about 50 students, I would normally review about 150 individual drafts – but this is not as onerous as it sounds, as I am so familiar with their writing and their thought processes (from the speed dating and the post it notes). Finally, there is an essay surgery class for face to face feedback followed by the submission class.

The students don't have to attend the submission class if they have already turned in their essay, but I ask them to come along to support those working up to the deadline (which is at the end of the class). There is time for peer review, help with references, last minute polishing of the writing – and those students that are done can help those still working. The first hour of the class is quiet working time, and the final hour is raucous quiz time (at the front) and quiet-ish finalising time (at the back). With the idea being, that with so much fun being had at the front, the students at the back will stop prevaricating and submit their essay so they can join in the fun.

Usually about half the students attend – and usually these are those who have been most engaged in the class.

So I was surprised to walk into the classroom early and find Dominic sitting there. In full military uniform.

Data Vignette 24: Thank you

Private conversation with Dominic.

> 3.50pm Thursday 21st March 2019
>
> Dominic: Hi Dr Hauke!
>
> Me: Hi Dominic – you've already submitted your essay haven't you?
>
> Dominic: Yes, I submitted it yesterday. But I wanted to come along today, like you said to support everyone else. And also I wanted to speak to you.

Me: OK (sitting down beside him). You're looking very smart by the way!

Dominic: Yes, I've got to go to parade soon – I can't stay for the whole session, but I'll stay as long as I can. You see, I'm in the [military] and when the others were leaving early to go to rugby, I was leaving early for [military] training…

Me: Oh, I never realised that – you should have said!

Dominic: Well, anyway. I wanted to tell you how much this module has meant to me. I've never had an experience like this. I've learned so much from you. Every moment has been something new, and I've changed so much. This has really changed me.

Me: Really? I was never sure how much you were enjoying the tasks, or how much you were getting from them…

Dominic: Loads. I don't think anything else I've done has ever taught me this much. I've learned about myself, how to work with other people, how to research things by myself and think more openly, how to write – so much… So I wanted to say thank you. This has been so important for me. I'm going to use everything I've learned here.

Me: Well, you're very welcome. It has been a pleasure to work with you and I'm really happy that you feel that way. And also really happy that you shared this with me, that's very kind

> of you. We're going to be writing our thoughts about the module on those whiteboards during the class – would you like to help me set it up? If you could just draw some big shapes for people to write in, and then think of some questions – things like – what did you learn in this module - what went well, what could have been better – things like that… Could you do that for me?
>
> Dominic: Sure, and I'll fill in my comments to start it off…

I was completely floored by this. At the start of the conversation, I thought that maybe he was joking, then I wondered whether or not he was being sincere – perhaps trying to flatter me before I marked his essay. But I did really feel that he was being genuine, and so I took this conversation at face value.

The other students started arriving and I had to postpone my post-match analysis of this moment until much later. But it got me to thinking – when were those moments that had mattered to Dominic? What and where were his encounters? Clearly I had misjudged his engagement with the module – and with me. And if I hadn't spotted those moments, had I handled them right? Could I have done better for Dominic? But then I realised that Dominic wasn't reporting that he could have benefitted from the module more if only I had noticed his engagement – he was telling me that he had benefitted. So was this an example of engagement by stealth, or had I really been blind to what was happening? And what does this then say about my powers of observation, and the whole basis of this piece of work?

But in the context of Dominic and his experience, do any of these things really matter for him, if the outcome was positive anyway? Perhaps Dominic's engagement was more vicarious in nature (Northedge, 2003) – but nonetheless potent or transforming for that vicariousness. This perhaps held the engagement back from my direct view, held it back from being played out in the classroom – but if we take Dominic at his word, it certainly did play out somewhere.

Perhaps if we try to imagine what 'line' (Goffman, 1967) Dominic was taking it might help us understand this a little more. Dominic was polite and 'showed' superficial engagement during classes. He deflected my attempts to engage him more directly and kept my feedback at arms' length. Perhaps Dominic needed space around his own safe zone that he could explore in private. His line was designed to maintain a private tension between his own established way of working, and the potential of working in new ways. And that tension needed housing in unobserved space. He navigated his own encounters before emerging at a time when he felt ready to share his new vision of himself. Perhaps Dominic mitigated the risk of these explorations by denying them publicly, before finally settling in to his expanded, transformed and still risky new area of operations.

But also, perhaps, I will never know. I will never fully understand. And that is OK. Dominic has raised questions, made me wonder, imagine and puzzle. And that is what this research is ultimately all about. Both you and I have to accept the limit of what we can know or understand – not just about Dominic, but about all the students – Garrett included.

And the session went as I would hope – the students supported each other, we had a furious quiz and I lost my voice. We shook hands and said our goodbyes. And one by one these last students walked out the door of our classroom into their imminently diverging futures.

I cleaned the whiteboards and gathered my things, casting one last glance around the room. And my eyes fell on a laptop left on a desk in the corner. Where Garrett had been sitting.

(Above and) Beyond

For what you see and hear depends a good deal on where you are standing: it also depends on what sort of person you are.

The Magician's Nephew (Lewis, 1955: p143)

Found Poem 6: The bar needed to be raised

Daphne Garrett Marcus Smithson

So, Lake Nyos

that's the most freedom we've had

we did it in the form of interpretive dance

Oh, yeah. God

that was where that was from

You were lauded to us

as the most creative geniuses known to mankind

we were like, God, we want to be those people

my final project was interviews at this point

I thought that was pretty damn creative

and then you guys

it was like, oh by the way, they danced it to me

I was like, I see.

The bar was needed to be raised

I wasn't thinking this is being graded

that did not spring to mind

otherwise I'd have put my foot down

been like, no

we just kind of ran with it

we had such a good group

we supported one another

School's out for the summer

And with that we are done. The students have left our classrooms for the final time and are making their way towards their end of year or final examinations. Moving on to further study, new opportunities and the wider world of work. I will meet a few again in later modules, I will see and hear of many successes on social media and I will be writing references and following up with many students in the years to come. But for now, our time together has come to an end.

My marking is complete and I have written my final feedback sheets, signing each one individually (albeit digitally), to signal the closure of this shared experience.

And weeks later, once the learning and teaching is fully behind us, my administrator writes to the students to invite them to participate in this research. Asking them to allow me to share our stories from the classroom. To reflect and dig into these shared moments to see what questions arise, to see what can be drawn from this year of learning. As we considered earlier, hopefully receiving an email from an outsider to our experience makes it easier for the students to ask questions, or even withhold consent if they want to.

This is a nervy moment for me as the researcher, waiting to see what will happen next. What I will be able to do next.

All the students consent, and a few send me lovely messages of support.

To the research and beyond

And so now here we are. We have wandered the hallways of the Reykjavik Concert Hall. We've circumnavigated the globe of my classroom(s) through an academic year. And we've travelled alongside the students as they have navigated space, time and encounter in their learning. I hope that I have been a worthy tour guide to this rich and dynamic world.

As I transitioned from the 'teacher-dominant' perspective of being within the experience to the 'researcher-dominant' perspective of analysis and writing, I didn't know how best to tell these stories. I didn't know which stories would fit well together

to paint a vivid, inclusive and welcoming narrative. I didn't know how to provide access to something so complex, without oversimplifying, overcomplicating, confusing or infuriating. There were many ways that the data of this experience could have been explored and presented. Many choices to be made.

And I worried about my obsession with authenticity. I worried that it might get in the way of doing the data justice. Honouring the generosity of the students in allowing me to share their stories. Perhaps I was being indulgent, trying to create a novelistic form. Maybe I would fall foul of the old style-over-substance critique. Only you will know.

It's all in the slice and dice

Initially I wondered about maintaining a triple narrative – retaining three distinct voices as the designer, teacher and researcher. Weaving a story that passed between the three voices. But I quickly realised that this would be artificial – as much as I can identify those three distinct aspects to my work, three sets of priorities and motivations, I think we have seen during our time together that those are firmly intertwined within my being. These differing faculties actually champion and push each other forward. Elevate each other and together reach beyond what could be achieved (or explored) by each in isolation.

Then I wondered about exploring the themes in their totality. Using every classroom example available to explore space, then time and encounter. Drawing from across student year groups, modules and narratives. This would have allowed me to showcase more of the individual moments, perhaps delve deeper into narrow points of focus. But would I have been able to recreate the whole experiential world that situates these phenomena? Would this instead have been a fractured re-telling? Jumping from disconnected moment to disconnected moment. Would you have felt free to wander around my classroom, meeting different voices and exploring different ideas? Would there have been enough of a containing web of continuous and coherent experience to liberate you to imagine, wonder and reflect?

And so I compromised on the amount that I should tell and include. The number of moments and students included. I used parts to recreate the whole. A synecdoche.

Using coherent and chronological narrative also allowed me to convey some of the design elements of the learning activities and assessments, which would have been hard (and wordy) to include otherwise. To create a sense of the module in terms of the design, the learning, the students and the experiences.

Luckily, all three themes of space, time and encounter were present within all three classes. And luckier still, each theme felt as though it had a natural home within a particular classroom, with particular students, within particular curriculum designs and – somewhat incredibly – at this moment in the repeating cycles of these modules. No theme could have been better explored with a previous student cohort, and I suspect none could be with any future student group. And so it felt right that the first year students would help us explore space, the second year students time and the final year students encounter.

And after all this thinking, processing, remembering and re-membering, I have been brave enough (or foolish enough), to write by feel. To keep an eye on the big picture, the small details and the in-between, but to let the writing write itself.

> "Composing is an osseous process […] You […] throw yourself in and swim among images and memories […] You freewrite five to six pages at warp speed […] You keep the critical, editing voice at bay. You go from tightly focussed writing to brief pauses where you allow your attention to dart here and there. Keying in the words, you're scribe, medium channeling the story and conductor orchestrating the process. Besides being pleasurable, the work of putting down words engenders its own kind of trance; the physical act of writing is another kind of dreaming. Once you get into a working rhythm, you hate to interrupt or leave it."
> (Anzaldúa, 2015: p104)

But has this worked? For you?

Only you will know the answer. Have you been drawn into this world? Have you explored, felt free to think, agree, disagree and wonder? Have you asked questions about your own learning or teaching experiences? Have you asked questions about

mine? I hope that reading this has felt like going for a swim. Enveloping yet refreshing. Luxurious yet exercising. Comforting yet challenging. I hope that you have been able to let the narrative wash over you, been drawn into a rhythmic movement through the ideas. I hope that you feel awakened. To this story and to your story. Ready to towel off and get back to your day.

Synecdoche, Change Makers

> *"Boatness is a state of being in which ontology and epistemology flow into each other: in which your experience of the world is inseparable from your knowledge of the world. It is a non-dualistic entanglement between the vessel and what contains it. In boatness, attention is called for, but with detachment. Boatness is the thin place in which theory can be practiced, intuition can be a method and love can be a robust form of critique. The part has a feminine energy that integrates it into the whole.*
>
> *The text score is as instructional or speculative, as performative or ritualistic, as participatory or discrete as you'd like. It is an open text inviting you to choose your own adventure, find your own boatness as a guide in those periods when you are adrift or when you are dispirited or have been silenced, boatness can be the wind that assures you of the movement, even in stillness.*
> *(Himali Singh Soin, 2020)*

Thinking about the choices that I have made in the presentation of my data, in the telling of this story, there was one aspect that I wanted to explore further. And that is that I have told the story of this year as three separate narratives. I have presented the happenings of each classroom in isolation. From start to finish. And then again. And again. Which on one hand makes perfect sense – they are complete and discrete stories in and of themselves. But also makes no sense at all. When you consider authorship.

I have talked about my efforts to keep my authorship visible to you. To make myself known and present in the narrative(s). And yet I have told the stories of this year in a

way that I did not experience them. I did not teach all my first year classes, and then all my second year classes and then all my third year classes. In fact, it went more like this:

second-third-second-third-second-first-third-second-first-third-second-first-third-second-first-third-second-first-third-second-first-third-second-first-third-second-first-third-second-third-second-third-second-third-second-third-second-third-second-third-second-third-second-third-second-third-second-third-second-third

And so my experience of each individual class was not bookended by other experiences with that same class, but by what was happening in the other classes. Moment by moment. By stresses and successes. By energies and flatnesses. By quandries and inspirations. I dragged my experiential luggage (Rudie, 1994) from room to room, week after week.

And the students' experiences were also not quite as isolated as they might seem. On occasion, a student from one class (for example Danny or Martha), might wander into the classroom of another class. See me with other students. See other students having their own experiences. And they might have had feelings about that moment that they brought back to their own class.

And I, as the teacher, also blurred the lines – often intentionally.

Data Vignette 25: They danced it to me

Whole class discussion to co-design the project brief, including deciding what should be handed in for assessment.

> 4.45pm Monday 4th February 2019 (second year class)
>
> Me: So what types of output or product do you think it would be ok to hand in for your projects?
>
> Diego: A report.
>
> Murmurs and nods of agreement.

Me: Excellent, a report. That could be a good thing to hand in. But what else could you make, do or show about your project? Remember, you will probably want to hand in more than one thing…

Lina: A video?

Me: Fab. That could work really well. What might be on your video?

Lina: I don't know, like, we could present our ideas or something.

Me: You certainly could. It could be a video presentation. Or a video diary. Or a video…?

Shrugs all round.

Me: Remember, this is your dream project. The project with no rules – apart from these ones we're designing now. Your project can be anything. Should be anything. Your wildest, most ambitious, most risky, most joyful, most satisfying thing.

Leon: Yes, but it can't be *anything*, though can it? I mean it has to be marked. And it has to be equivalent to what everyone else hands in.

Me: Well, first, yes it can be ANYTHING!! And second, that is why we're discussing it. We're coming up with a menu of equivalent options. So. For example, it should probably be the equivalent to a 2000 word essay. Except, no one is only handing in an essay, so the maximum word count on a written component should

probably be 1500 words. That leaves some room for something else to be handed in. Like a painting for example. Or a performance.

Lucy: I'd like to do paintings. But how will you know what they mean? I could get more marks if I write in words. How can I say as much in a painting?

Me: I love the idea of you handing in paintings. But you're right to think about what you can communicate with a painting. How about - if you hand in something that is non-explicit, you have to write a short statement with it. To make sure that your main ideas are conveyed. Would that work?

Lucy: That could work…

Me: But remember, something like a painting is not supposed to have an explicit meaning. It is supposed to leave room for the viewer to interpret something. That is really important and just as valid as saying everything explicitly.

Lucy: I'm not sure about that… And I'm not sure that we can really hand in *anything*… I mean, this is still university and there is still an examiner…

Me: OK. Let me tell you about something that happened in my final year class just before Christmas. So these students are even more worried about their grades than you, right?

Nods.

Me: And these students had to do a 'presentation' for marks. Except they weren't allowed to do a presentation. They had to communicate something quite detailed and complicated. They could use any method of communication that they wanted, but they weren't allowed to use powerpoint, or to stand and present to the class. And do you know what they did? Well, it was awesome. One group wrote a play based on A Christmas Carol. With the ghost of nature past, present and future. They were telling us about the Venezuelan Mud Slides from Christmas 1999. And there was a quiz show. And a debate. But the best one? Well, it was about the Lake Nyos explosion. And let's just say, they danced it to me…

Smithson: They what?

Me: Your heard, they danced it. They choreographed an interpretive dance routine, with music and everything. And they danced it.

Smithson: At Imperial?

Me: Yes.

Smithson: Imperial students?

Me: Yes. They danced it.

As I was struggling to inspire my second year students to think outside the box about their final projects, I told them about the Lessons From History students' presentations just before Christmas. I wanted them to take courage from the experiences of other students. I wanted them to step off, into the unknown (or at least, into the less well known). I wanted them to surprise themselves. But I wanted them to do their own

version of interpretive dance, not copy some ideal that they thought would please me. And having spent some time with this group, I was pretty confident that they weren't about to all submit dances. So this was a nice example to share. To stretch their imagination, to reveal as-yet-un-thought-of possibilities. Or rather to reveal the true absence of currently-deeply-held-imaginary-barriers. To re-write the rules of the asylum (Goffman, 1961).

Let's macramé

I particularly wanted to reflect on this idea of the artificial separation of the narratives. The division of experience. And to try, in some way, to reunite these threads. Re-knot the experiences into a whole. And so, I became very inspired when I saw this piece of work called Boatness by artist Himali Singh Soin (Image 5).

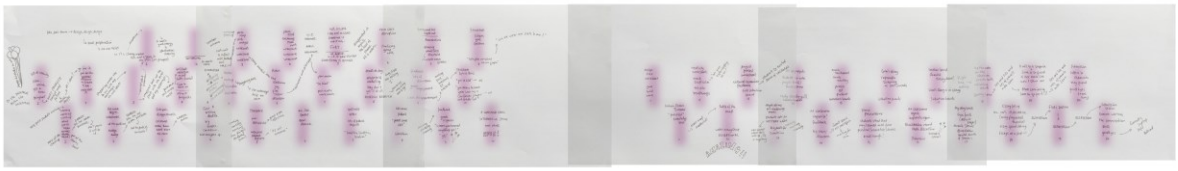


Image 5: Boatness (Singh Soin, 2020)

Now I know this is hard to read (we'll dive into a close up in a while). But stick with the overall impression for a moment. What is the sense that you get from a casual glance? For me, I saw a score. A musical score of words.

And in my mind, I saw in my own work, my classes laid out as a score. Layered up, temporally tethered. So that each moment is aligned with other temporally related moments. And so I set to work, figuring out how I could re-present the narratives of (S)p(l)ace, (Behind the) Time(s) and (Close) Encounter(s) as a single slice of time. Akin to how I, myself, experienced these narratives.

And this is my attempt (Data Image 30).



Data Image 30: My data as a score

The top row of entries represents the eight (pink) classes I shared with my first year students. The second row are the twenty (pink) second year classes and the bottom row the twenty (pink) final year classes. And the spatial distancing between the pink bars represents my weekly journey of second year classes on a Monday, first years on a Tuesday and final years on a Thursday. There are always two clear weeks at the start of second and final year classes before the first year classes commence. And there is always the winter break between weeks ten and eleven. And again, I know that you can't read this, but what is the sense that you get?

When I sit back in my seat and look at the whole image, it appears simple and orderly. And I wonder where all that mass of experience came from. It looks so minimal.

But then when I zoom into any section of the image, I feel overwhelmed by all that is happening in a short space of time. All the threads of experience that I am holding and managing. All the responsibilities I have. All the anxieties, hopes and aspirations that I am holding (mine and the students').

Here we see the period around the VIP visit to our first year classroom. There were many meetings, arguments, cross and anxious moments in the weeks before this visit. Most notably impacting me in all my classes the week leading up to the visit. I was distracted and stressed by the disagreements, disappointed in my colleagues and institution for putting me in this position and second guessing myself at every moment. And the classes in the week following this visit were impacted by my sense of shame and despair at myself.



Data Image 31: Delving into the score

Now that's not to say that I turned up to these classes 'showing' any of these emotions and occupations. But neither is it to say that I showed up to any of these classes with them sufficiently hidden from view. Clear minded and fully focussed on the class at hand. All I can say is that I did my best.

And so that is an important part of my experience. And my authorship of this story is clearly going to be coloured by my own experience. While it is good to pull apart this interwoven web and consider the strands individually, it is important that we remember where those threads have been disentangled from. Even when you untie knots from lengths of thread, the impressions, distortions and perhaps even scars of those knots remain (Ingold, 2015). The thread is never as it once was. Even when that knot is released and the thread is straightened out for closer inspection.

Let's finish these ruminations by going back to Himali Singh Soin's Boatness score (Image 6). She presents a smaller version, where we can see more of the detail.

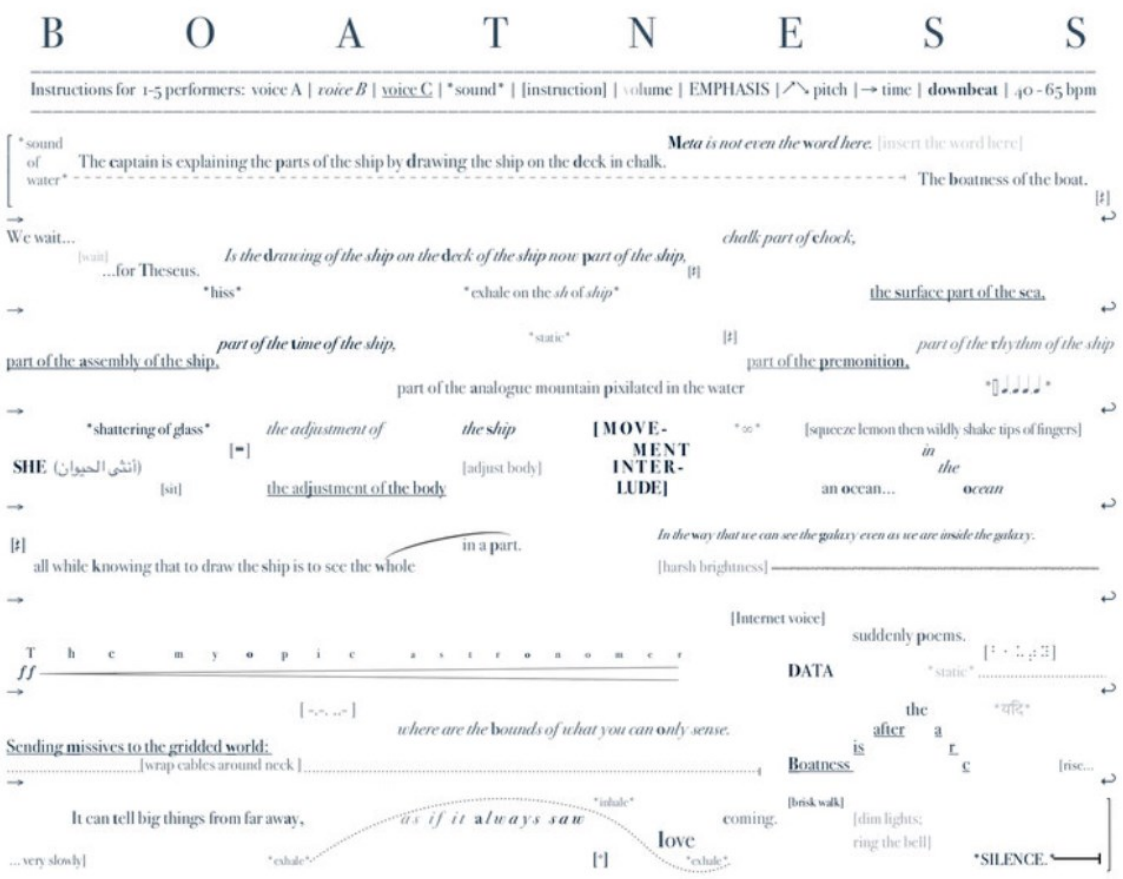


Image 6: Abridged Boatness (Singh Soin, 2020)

There are narrative lines about the sailing of a ship. And one of those lines, traced through the score tells of the captain of the ship, explaining to the assembled crew about the ship. This is found fully in the elongated graphic, but can be seen partially in the above abridged version.

> "The captain is explaining the parts of the ship by drawing the ship on the deck in chalk --- is the drawing of the ship on the deck of the ship now a part of the ship --- part of the rhythm of the ship --- the drawing of the ship on the deck of the ship is, therefore, an ocean in the ocean --- all while knowing that to draw a ship on the deck of the ship is to see the whole in a part"
> (Singh Soin, 2020)

So here we see Singh Soin (2020) reflecting on her own synecdoche. Her own sense of interplay between parts and the whole. But also, and more pertinently to this work, we see a sense of the relationship between the actual phenomenon, and the experience or representation of it. The ship, and the chalk drawing of the ship on the deck (of the ship). And here in this story we have a teaching and learning year as experienced, and a record of that year. Typed, drawn and recreated. Situated within my own experience. Drawn in chalk on my own recollection.

Lives of their own

So is Singh Soin's (2020) ship changed by the drawing of the ship on the deck of the ship in chalk? Clearly it is. Where there once was a clean, unmarked deck, there is now a deck with a drawing on it. But is the ship really changed? It now sports an adornment, but does it sail differently? Does it carry a different number of crew, passengers or weight of cargo? Is it functionally changed? Philosophically changed? Or merely in the aesthetic?

It is much trickier still to see the interplay between the experience recounted in this story, and the account being presented on these pages. What is the functional imperative, philosophical raison d'être or aesthetic value of this work?

And what is the relationship between the reality and the account? Is that relationship entirely dependent on and generated by the narrator? Like the captain making the chalk drawing?

Well in one sense, the experience can only be accessed through memory. A fragile, dynamic and ever-changing resource in and of itself. And in the process of creating this work, my memory has been changed. Pathways that have been frequently trodden by the spotlight of my attention, have become well worn. Easier to walk down than those that have not had that use. Moments that help me explore bigger ideas have become more prominent than equally thrilling and fascinating moments that do not. And I have had to retain an awareness of that. Not be drawn into an enthrallment and romanticisation of the experiences at hand.

And of course, this has been helped by the fact that this account is, in fact, very little to do with my memory. It is based on hard materials – field notes, recorded at the time of the experience, emails, communications, student reflections, their work and feedback dialogues. These things are not changed by time, by rose tinted spectacles or the goggles of hindsight. And they can be used to triangulate (Denzin, 1978; Flick, 1998) the aspects of the construction and telling of this story that depend more on my memory, my choices, my imagination and my attention.

So while making meaning from them requires and engages my memory, in and of themselves these pieces of data are stable in time and space. They exist in the world, independent of human attention. They are objects. They are inert. Somehow objective. Reference points in a whirlwind of ideas, narratives and meaning making. But is this really the case?

It's that Pinocchio vibe

New materialism "provides an alternative to traditional modes of thinking which divide the world into dull matter (objects or things) and vibrant life (living beings)" (Bell and Vachhani, 2020: p683). Bennett (2010: p xvi) describes material objects as having "thing power", that is to say "the ability of ordinary, man-made items to exceed their status as objects and to manifest traces of aliveness". And when objects are viewed in this way, it is less the "stable in space and time" aspects of material objects that are important here than the "relational encounters" (Bell and Vachhani, 2020: p681) that can occur between objects and people. New materialism relieves the dualistic division of inert and lively (or 'ert' as I prefer to think of it), instead proposing a continuum of agency and liveliness that blurs or even erases this divide.

So is it reasonable to refer to my 'material' data as inert, objective and somehow, therefore, more reliable? If we consider the words on the page, the encoded photographic data on the hard-drive or the mass of handcrafted posters and diaries in my filing cabinet, maybe that is the case. But my interactions with the data, with the materials, do something vital – in both senses of the word. Let's take as an example my use of the photographs.

Let's think about the image of Marylin and Kacy leaving our final first year class wearing their future hats (Data Image 16). Now before seeing the photograph and creating the image, I remembered this moment well. I remember feeling pleased and proud that the students had enjoyed and relished the activity. That we had learned a lot together. That the students had confidently and unthinkingly presented their hats in front of the entire class, before clambering over the rows of seats in the lecture theatre to plot themselves into our person-sized human graph. And I remembered being thrilled that the students wore their hats home. Wore them out into the world, where they would be seen by other people. That the students weren't embarrassed or ashamed to show their work done with me to the outside world. This really touched me.

And then, when I selected the photograph to work with, this memory rose to the surface in my mind. But it wasn't alive for me. I wasn't in the moment with the students. I wasn't feeling those feelings or thinking those thoughts as if for the first time. I was on the outside, looking in.



Image 7: Original photograph of Marylin and Kacy leaving class wearing their future hats

To create the line drawing, I stick a printout of the original picture on my window, and then tape a blank sheet of paper over the top. Using my special sepia pen, I then consider what parts of the image I want to retain. I obviously want to feature the students, but what definition of the space is important, are the other figures in the image important? And I begin to draw the outlines. Adding more detail, considering when to stop. I simplify the architectural detail of the ceiling. I leave out the café tables at the base of the stairs. These details are not necessary to understand the image or illustrate the moment of experience.

And this process is slow. I am not a good artist. It takes me time. Time that I am spending with these students, with these memories, thoughts and feelings. Each line is a new stroke, a new hand position, a new held breath. Over and over. Worrying that the image is not emerging. Hoping that it will. Nothing else enters this space or time. It is me and the moment. Me and the experience. Me and the students. And something changes between us. Between myself, the photograph, the experience and the new image. Between my living-breathing-hand, my mind's eye and my inner world; and the supposedly inert pen, paper, ink, and image. The experience comes to life. I re-experience and re-member, as if for the first time, the richness of those moments. And I am not the me, standing with pen in hand, creating the narrative. I am the me in the moment, in the class, a part of the experience. I am inside the image, inside the story, looking out.

For each section of this story, as I prepare to write, I pre-select a number of images. I create the drawings. And that process creates life. The images speak louder than my dull old memories. And curating the selection of images, drives my writing of each section. They are my navigational waymarks. They are a familiar sight on an unfamiliar journey. They comfort me in the uncertainty and anxiety of writing. They ground me to the experience, to my living relationship with that experience.

The rhythmic addition of each line drawn, each breath held allows this to happen. Creates the headspace, the receptacle into which this new life can be breathed. And it is a new life. It is not the same as the initial experience. But it is created by and from that experience. And by the materials united in the craft of the image (Image 8).

Once the line drawing is complete, I photograph it. Give it permanence and a new form of materiality. Before importing it to the computer to add the pink tint. To create meaning within the lines. To direct the reader to what I think is important in the image. To reveal more of my authorship.

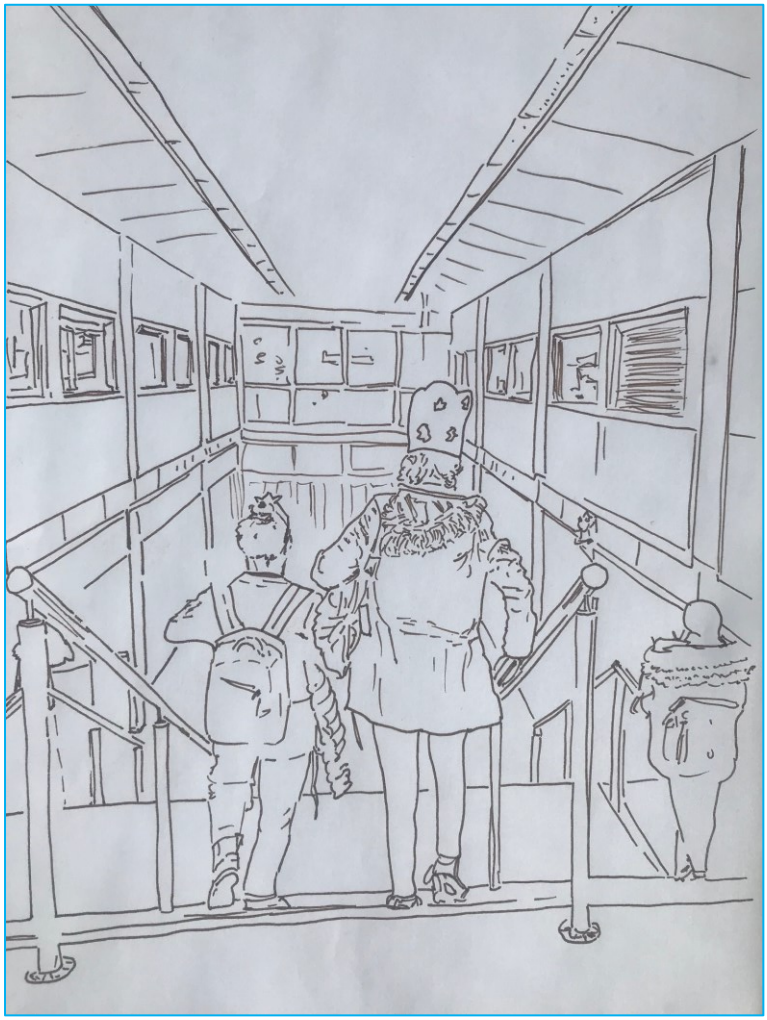


Image 8: The initial line drawing of Data Image 16

The pink tint draws the eye of the reader to the 'active' element of the image – the thing that I, as the author of this work, the teller of this story, am looking at. It also helps to render the image more readable, as without this, the images look flat and a little confusing – see above without the tint.

In this case, it helps to focus attention on the two students who were members of my class and were relevant to the story being explored, and away from the figure on

the right, who just happened to be walking past. The figure on the right has not been excluded from the image, because it is important to note that these students, who are leaving class wearing their hand-made hats, are happy to wear them 'out into the world', in the presence of other people.

And as a reminder, here is the final image, as presented earlier.



Data Image 16: Marylin and Kacy leaving class wearing their futures hats

Is Jack in the box (or diary)?

But does this concept of new materiality also apply to the ideas within the data? Let's think back to those moments when objects seemed especially meaningful to the students – with the concept-mobile boxes and the diaries in that second year class. We previously considered that the boxes performed a psychological function of containment for the students, easing their anxiety about how they were being asked to work. And the diaries provided a 'projective mechanism', allowing the students to play out potentially risky learning and working by 'sharing' that risk with their diaries. Retaining the right to assign blame to the diaries if the risk didn't pay off.

But is there another way to think about this? Were those objects – the boxes and the diaries, really inert?

It is not so much saying that the boxes in and of themselves were alive, or 'spoke' to the students to calm their anxieties. Rather it is saying that in the interaction between the students and the boxes, a calmness emerged. Their encounter provided a space for a new, emergent reality. And the diaries likewise did not demand entries from the students, did not tell the students how to structure their thinking and projects. But within the creation of the diaries, and by naming them as such, the students set up an encounter between themselves and the material that again created a space and a time for something novel to emerge.

Now, I hope that as an experienced reader of this work, it has not passed you by that in the last few paragraphs, I have dropped the space, time and encounter triad into the mix rather freely. And this has a special meaning to us (and Lefebvre (2004)) now. It speaks of rhythm. And what of rhythm and new materiality? Well, they go together like birds of a feather.

It is through our work with material objects, our relational encounter, that something new is crafted. Now, this might be literal – in the sense of a woodsman carving a totem to keep, gift or sell. Time is spent crafting, carving an identity-less, meaning-less piece of wood into a characterful object. And that time involves repetitive motion. Repeated strokes of the knife over the surface of the wood. Each stroke the same, and yet different. Peeling back a new layer, creating a new angle, shape or definition. The very essence of the relationship is rhythmic.

And so it (less literally) was with the students and their boxes – taking the contents in and out. Decorating and adorning the boxes. Following, in procession, as the boxes were brought to and from class. And with the diaries – the repeated annotations, day after day, week after week. A rhythmic relationship.

I'm not saying that one understanding – new materialism – is right, and another – psychological projection – is wrong. I rather think they complement each other. I am sure that within the new materialistic relational encounter, there are many projective

elements. But considering multiple understandings here, enriches our sense of what might have been happening. Enriches our understanding of the power and importance of those moments.

It's good to play the field (of ideas)

It rather seems as though we're circling back to questioning reality and our creation of meaning from the cues around us. We're saying that objects could be considered as inert and ert. Without life and yet lively. We're saying that we could understand things in one way, and at the same time in another way. We could hold multiple understandings and meanings in mind from a single experience. Is this normal? Is it healthy? Is it right? In an academic piece of research?

Let's just cast our minds back to Rudie's (1994) very helpful schematic that describes how experience is converted to knowledge. Individual pieces of experience (gestalts or images) are acknowledged by an individual – we name, codify and discuss these experiences internally and with others (observation). We then have many ideas about what these experiences might mean (symbolisation and metaphorization), and through a process of correspondence (articulation) – seeing what fits with what, who agrees with us – we advance a single understanding that then becomes solidified as a 'fact' (objectification). As described by Rudie (1994), in its simplest form, this is a rather one-way street. From experience to knowledge.

But what if we reconfigure that slightly? I rather like the middle step of this process – what Rudie (1994: p31-32) calls 'symbolisation and metaphorisation'. What if we were to privilege this part of the process? What would that look like? In figure 25 we can see a re-imagining of Rudie's (1994) schematic. We now have a bubbling cauldron of symbolisation and metaphorization, being fed by images and gestalts that have been subject to observation. The cauldron emits articulations that then become objectifications. However, these objectified new 'facts of knowledge' now also represent new gestalts and images, that are themselves subject to observation, symbolisation and metaphorization. And not only that, the articulations and objectified ideas can also feed straight back into that bubbling cauldron.

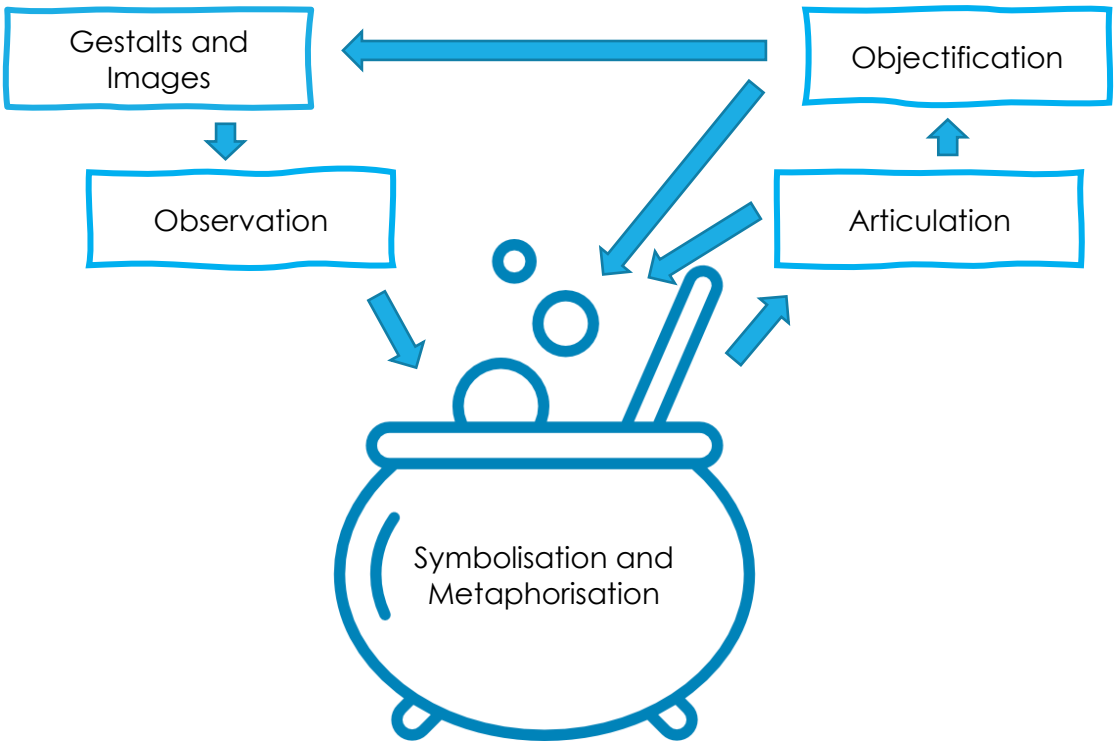


Figure 25: Rudie's (1994: p31-32) schematic reimagined

And it is perhaps the messy, polysemous central cauldron where I think meaning exists the most strongly. Where there is the most to be gained and learned. Where the most enriching possibilities lie. And that maybe explains why I am happy to reside in this messy spot, rather than pulling out single truths and certainties from my research. And why I hope that you, too, will enjoy and revel in this melting pot with me. Each of us is then free to articulate what we personally can take from this cauldron, and in conjunction with our own wealth of life, and more specifically, teaching and learning experiences develop our own truths and understandings – which might all be different from each other's, but equally valid.

"My job is not just to interpret or describe realities, but to create them through language and action, symbols and images. My task is to guide [you] and give [you] the space to co-create, often against the grain of culture, family and ego-injunctions, against external and internal censorship, against the dictate of genes. From infancy our cultures induct us into the semi-trance state of ordinary consciousness, into being in agreement with the people around us, into believing that this is the way things are. […] This text questions its own formalizing and ordering attempts, its own strategies, the machinations of thought itself, or theory formulated on an experiential level of discourse." (Anzaldúa, 2015: p7)

So I say

Now I realise that I might have just slipped up back there. I used the dreaded 't' word, truth. I've been at great pains throughout this work to eschew the idea of finding the truth, the notion that truth can ever be the result of this type of work. But I hope that you also noticed that I used the word in plural form, slightly corrupting the notion of a fundamental, underlying truth with a polyvalent overtone. But as we begin to turn our minds back to the big questions of this work, to consider whether we have approached, explored or answered any of them, I just want to think about one last aspect of the nature of this account from a methodological perspective.

If I were to be brought up in a court of law, and asked to swear before the court to the truth of this account, I would say that everything written here is 'true'. But it would be much more accurate to say that everything written here is 'honest'. I can't claim to the 'truth' of these matters, but I have provided an honest account. This is my best and most faithful retelling. And by this honest account, we can recognise and create our own, personal 'truths' (plural).

So let's agree for a moment, that you accept this distinction. And further, that you accept my honesty in creating this story. But does that mean that any aspect of this account is as it actually happened? In that inaccessible and mystical realm of 'reality'? Is there a way to check? To explore this?

Well there are ways to explore the validity of ethnographic accounts. And in fact, we have already explored a key one – that is using a range of data types (field

notes created by the observer, but also learning reflections, emails, annotations and work produced by and written in the words and voice of the students). Using that range of data, that range of products to create a single account. Using triangulation of the data to indicate that key parts of the story are found in differing records of that same moment.

However, as Richardson and St. Pierre (2005) point out, triangulation is a traditional method that carries certain assumptions about the data. And given the use of creative analytical processes in this work, the inclusion of drawings and poetry alongside narrative prose; and the inclusion of a range of theoretical and disciplinary perspectives, alongside reference points from popular culture, triangulation might not be quite the right term for what is happening. The intention is the same – to layer and bring into contact different types of data and idea to explore the validity of each component part and of the overarching impression or meaning being created. But a better term in this context is crystallisation (Richardson and St. Pierre, 2005: p963):

> "the central imaginary for 'validity' for postmodernist texts is not the triangle – a rigid, fixed, two-dimensional object. Rather, the central imaginary is the crystal, which combines symmetry and substance with an infinite variety of shapes, substances, transmutations, multidimensionalities, and angles of approach. Crystals grow, change and are altered, but they are not amorphous. Crystals are prisms that reflect externalities and refract within themselves, creating different colours, patterns and arrays casting off in different directions. What we see depends on our angle of repose."

Loop the loop

We can also triangulate or crystallise the range of perspectives as well as the material data sources. If we think back to those observational interaction diagrams (figures 12-15) we elaborated in Method(ish), we can start to see how it might be possible to isolate and overlay each of those directional flows of observation. If we recall our most complex representation (figure 15) we can see that there are lots of potential 'observations' that we can put to work.

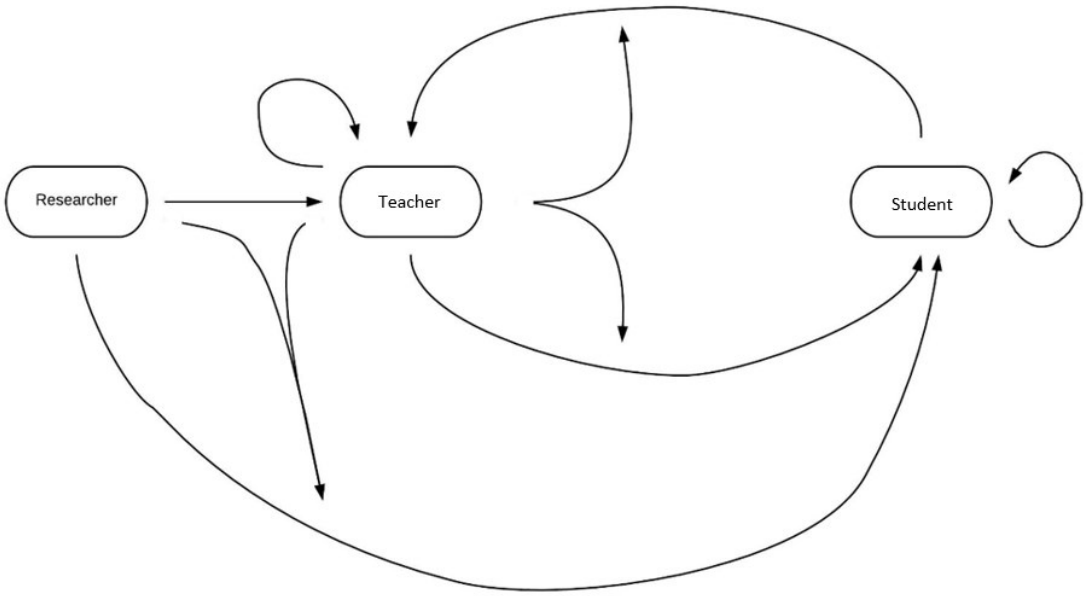


Figure 15: View of observational interaction with reflexivity, reversal and the observer as participant researcher (embodying both a participant and researcher role within the scenario)

We have the gaze of the researcher on the teacher and on the student. We also have the gaze of the researcher on both of these observations themselves. We have the gaze of the teacher on the student and, reflexively on that observation. The teacher is also reflexive of their own participation. We then have the gaze of the student on the teacher, and reflexively on their own participation. And finally, we have the teacher's observation of the student gaze.

Now that is a lot of looking. A hopelessly enmeshed and dynamic wealth of gaze. But actually, this is not quite the whole picture. Because until now, we have assumed that the student identity fully encapsulates the position and gaze of the research subject here. The student. However, if we reflect back on what we have experienced together, we can begin to see that this is reductive and simplistic, even in the apparent complexity above.

I think we need an example to help us think this through. Let's consider Garrett for a moment. There is the strongly and institutionally identified 'student' Garrett. The experienced student of Imperial College, who knows how to learn. Who knows what

a class is, what the role of the teacher is. Who can situate our learning together within the context of his learning at Imperial. Who identifies strongly as the experienced Imperial-ite. Othering me and my 'nonsense' approach. And then let's consider the 'it's-not-nonsense' Garrett. The Garrett who is willing to step outside of that identity – to risk experiencing something different. Who can recognise a different type of experience, a different type of learning. Who can make choices for himself, bring himself into his work. Is this just a development, a growth of the initial Garrett? Or was this second Garrett present all along?

I think that there is a strong case for arguing that as members of the 'asylum' (Goffman, 1961), our undergraduates develop a self-protective, self-efficacious 'student' identity that helps them navigate this complex period of their lives, in this complex institution. However, this is a constructed, functional identity. A part of themselves that they marshal in the service of their learning. But it does not represent their greater learning selves. That can reflect and flex to varying degrees within their studies.

So I think we should adapt that diagram to look like this (Figure 26). We should acknowledge the 'student' as an institutional or functional identity (Gee, 2000), and the individual who we previously thought of as the 'student' should more holistically and humanely be considered as the 'learner'.

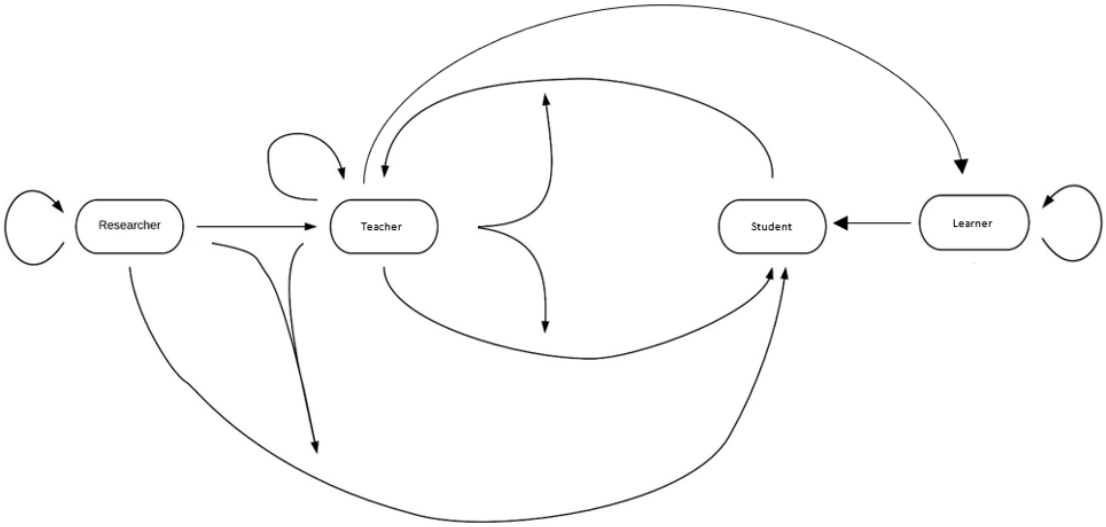


Figure 26: View of observational interaction with reflexivity, reversal and the observer as participant researcher (embodying both a participant and researcher role within the scenario), and the student as both student (institutional identity) and learner (holistic, humane identity)(Adapted from Hauke, 2021: p87)

And so now, we have to also consider the teacher's gaze towards the learner – this learner-Garrett was very visible to me in the classroom, alongside student-Garrett. There is also the gaze of the learner self on the student self. Garrett articulated this several times during our encounters. And then there is the reflexivity of the learner, which I like to think might lead to some development of the 'student' identity. A critical awakening within the 'student' identity, that reunites the learner-student dyad. Creating a student 'front'(Goffman, 1959) to protect the more vulnerable, person of the learner within. But bringing personal experiences, values and choices from the learner to the theatre of learning. Allowing a deeper, and perhaps, more authentic type of engagement.

There probably should or could be even more arrows on this diagram, but I think we'll leave it there (for the moment). There are enough arrows to provoke us to think (which is the most important thing), and if this thinking means that you would like to add more arrows, please take your own pen and do so.

It's more 'So WE say'…

Another method of exploring validity in this type of work is to obtain what is called 'respondent validation' (Hammersley and Atkinson, 2007: p181). This is when some or all of the account is provided to the subjects of the ethnography, to those under observation. And they are asked whether they 'recognise' the experiences being described. Whether they have any comments, any additional perspectives that can be included to enrich the account, or improve the 'validity' (Bloor, 1978; Lincoln and Guba, 1985).

However, this is a contentious process. It is not a neutral and objective thing to read another's account of yourself and your actions. And it cannot be assumed that it is possible to review this account with sole attention being given to the 'truth' of the account, without issues of pride, self exposure and aspiration also colouring that review (Bloor, 1978; Hammersley and Atkinson, 2007). And this is before considering the impact of the passage of time, the benefit of hindsight and the maturation of the initial experience in the mind of the participant in light of subsequent life experiences.

And I need to throw (yet another) wrinkle in the works here. So far, we have been considering this account as being the account of 'Elizabeth The Researcher'. But we haven't really considered how this account came to be. We haven't included 'Elizabeth The Teacher' in the generation of this account. And actually, 'Elizabeth The Teacher' is pretty key to the validity of this constructed story.

I have been clear that this account was only constructed and created after the end of the teaching year. By myself as the researcher. But where has the material for this account come from? And was any of that material subjected to respondent validation?

Well curiously enough, the answer is yes. As a teacher, I am not just the 'vessel' through which the lived experience of the classroom is channelled to the researcher. Firstly, I am a living, thinking, reflecting active participant in the (teaching) observation.

As a teacher, I continuously sense-check and use all my teaching experience to record my observations. And not for the purposes of any research project, but for the purposes of the teaching. I need to make sense, as a teacher, of what is happening before me, so that I can respond to it, as a teacher.

And, as a teacher, I am fully aware of the limitations of my ability to do this. So another feature of the curriculum design is the frequent opportunity for 'negotiated reflection'. For the students and I to come together, share our ideas about what is happening in the classroom, what it feels like and learn from each other's perspectives. Now sometimes this is an opportunity for me to check in with the students about how they feel – what is easy, what is difficult and what they think about our work together. Sometimes this is an opportunity for me to share my reflection on what they have learned, or how they are working. And sometimes this is an opportunity for them to share something with me that I might not even have anticipated needing to know.

With my second year students, one of the key periods of 'account checking' occurred with the use of our intention boards – the white boards that students annotated during each session with their progress, goals, questions, concerns and triumphs. Most of the time, we just had a single board titled 'Intentions'. But in other weeks we had additional boards captioned 'I am happy with…', 'I am concerned about…', 'I don't know what to do about…', 'I'm proud of…', 'This learning is different to usual because…'. Hugely pedagogically significant opportunities for the students to reflect on their own progress. To learn how to share their concerns, ask for and accept help.

But also for me as the teacher, opportunities for the students to reveal their hand. For me to pick up new insights and follow them up with the students. Opportunities for our experiences to be drawn into a single, messy sense of where we are as a group of people working together.

And sometimes these moments were more acutely negotiated.

As when, with the first year students I would project photos from the previous week's session to reflect on our work and the learning that was taking place. Inevitably, I would project an image and ask the students what was happening, and they would say 'we were struggling', or 'it was really hard'. Or 'we spent the whole session working in teams to research things but we didn't learn anything specific'.

And I would counter this with questions like 'take a look at this image – look at James and Dylan here – what skills are they using in this task?' or 'what did you achieve during this activity?'. And gradually we would unpick together the skills and achievements of the students. All the while acknowledging that this might feel different to a lecture, this might have been really hard and confusing or messy. It might not have 'felt' like learning. But it was. Real. Life. Learning.

And we have even experienced one of these moments together, in this story. Think back to the final moments of the first year module, when Kacy and Marylin were telling me about how well their presentations had gone the previous week, while proudly wearing their futures hats from our final session. And they worried that they wouldn't be able to present so well in front of a bigger audience, or in a different setting. And I gently suggested that they had, in fact, standing at the front of the lecture theatre, just presented their futures scenario and hats to a class of over a hundred students. They had just given a presentation.

If we hadn't had that conversation, the students' recollection of that session might not have included the fact of that presentation. But it wouldn't have meant that they didn't give that presentation. They just didn't see that moment in time as constituting a 'presentation'. So this coming together, this casual chat, allowed us to align our experiences. I was able to take away that the greens of that presentation were so well mashed into the potato that they were not spotted. The design of the session, with the 'hidden' presentation had worked to reduce student anxiety and to unlock their confidence. But it had also worked to 'hide' their success.

Before our conversation, my experience of that moment differed from that of the students. And after our conversation, the students were able to take away a revelation – they had just conquered their biggest fear without even breaking a

sweat. Without any fear at all. I didn't need to persuade them that their view was wrong or that my view was right. I just offered my own perspective on what I had just seen. And all of our experiences, memories and their attendant symbolisations and metaphorisations (Rudie, 1994) were forever changed.

And this is the 'data' that is passed from teacher to researcher. Not just the fact of the presentation. But the fact of the conversation. The students' perspective. My intervention and our negotiated, shared perspective. The joy and pride.

I don't think respondent validation of this written account would serve me as the researcher, you as the reader or the students as participants – at this point in time. I have done my best as a teacher to check my understanding of our shared experiences, to share my perspective with the students and to listen to theirs. And this checking was done contemporaneously with the experience at hand. Without hindsight, further experience or any other type of temporally-mediated obfuscation. And it is that 'validated' experience that forms the basis of this work.

Very similar or verisimilar?

Denzin (1997) rather frees us up from this somehow sacred and hallowed notion of 'truth' by instead referring to verisimilitude. And noting that there are a number of factors that determine the verisimilitude of an account, that are not related to the actual correlation of the account to this reified 'truth'. The account cannot 'be' the experience, but it can provide a simulated equivalent. Rather than striving for genuine authenticity, it is in and of itself striving for simile authenticity. It is a simulated map of reality.

Now obviously, with my preoccupation for genuine authenticity, this might be considered a blow to my ego. This account that I have strived over, poured my soul into and that might contain more of me than my actual living self – is not in fact authentic. It is a mere simile.

But of course, it can only ever be a simile – we are not there, together in those moments once more. We are here. Reading, dreaming, imagining them. From the comfort of an armchair by the fire. A deckchair on a steamership. The rat-a-tat-tat of a railway carriage, or my particularly uncomfortable-but-good-for-me kneeling

desk chair. And so it is not the account that confers genuine authenticity, but my telling. And your reading. That is where the honesty, pain and joy reside. And the words and pictures themselves are the best equivalent to the real thing. The best way that I can invite you in. To share in this experience.

But we digress. Back to mapping reality similitudinously for your navigational comfort.

Denzin (1997) describes three factors that can demonstrate that this map is as accurate, or honest, as possible. The first is whether the text appears to represent the 'real' – similar to the above ideas of triangulation, crystallisation and of respondent validation. Can we trace the origins of the parts?

The second speaks to the interpretive reception of the account. Do other people that produce work in this style, using this method, this genre of exposition, find the work epistemologically valid? This goes beyond disciplinary structures or acceptance by any single individual. This speaks to the types of knowledge being explored (which may be many), the (potentially many) methods used and the type(s) of text produced. Every genre of text has its own rules and laws. A statistical table conforms to the requirements of its genre in a completely different way to a passage of thick description (Geertz, 1973). This is about the community of readers of the text in all their richness(es). The engagement of a community of experts with the ideas and knowledge, and of practitioners with the methods.

And finally, does the reader feel that they have 'come to know' in their reading of the text. Does the text 'provide opportunities for vicarious experience' (Denzin, 1997: p10)? Can the reader suspend their own disbelief and enter into the world of the text (Coleridge, 1817/1973)?

Well on those last two points, I think that you as the reader, are really the only one in a position to judge. Have you found an honesty in the text? Have you experienced something of the world being presented as you have read the words on the page, pondered over the found poetry or disappeared into the images? And have you 'believed' it? Have you recognised moments of encounter or the ideas that explore them in your own experiences, studies or work?

And so to bring these thoughts together, we need one final figure. To honour your essential role in this research (figure 27).

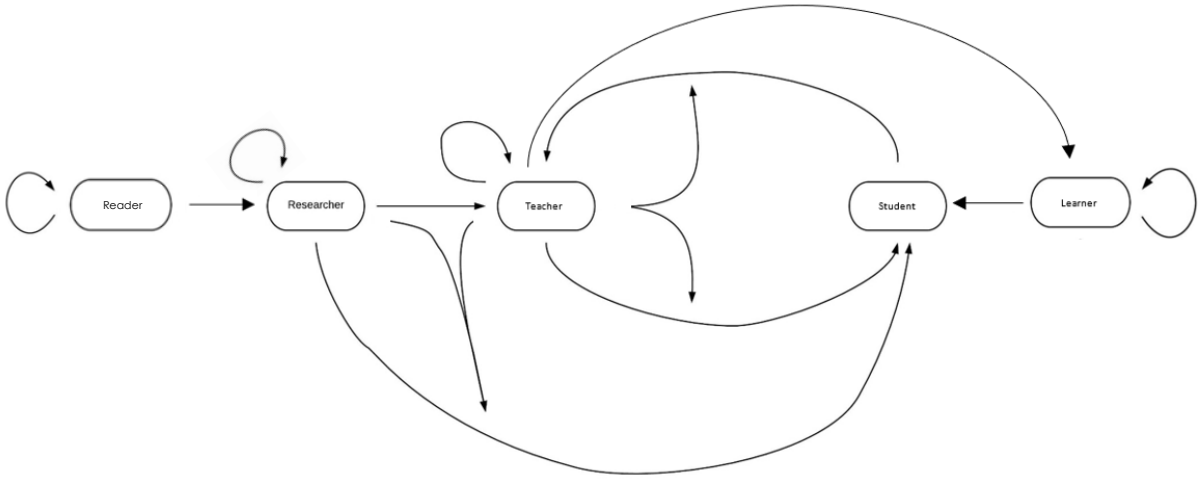


Figure 27: View of observational interaction with reflexivity, reversal and the observer as participant researcher (embodying both a participant and researcher role within the scenario), the student as both student (institutional identity) and learner (holistic, humane identity) and the reader (Adapted from Hauke, 2021: p87)

We're back to the lines versus circles for one last time

These diagrams (figures 12-15, 26-27) are all very well. But as I have said, you could make the argument for more or less arrows. And I'm really happy for you to scribble away and create a representation that works for you. I'm always adding and removing arrows, and can't quite seem to settle. But there is a way that I particularly like to ponder the relevance of the arrows. And that is to lift this linear sequence of observation off the page and hold it in my hands. In three dimensions.

Because this linear representation is static in time. And the production of this work, and your reading of this work is anything but static. The teacher can see something of the student. But then the teacher sees something of what the student sees of them. And that initial observation is altered. And with every arrow, every layer of

observation, the potential for difference is magnified. Our enjoyment of this idea of process is rhythmic. We move along the arrows on one occasion, and take away one thing. Then we move along them again, holding a new observation or perspective in mind, and it is the same but different.

So I have a request. This might not be my brightest idea (within the findings of a piece of research and this, my doctoral thesis), to say 'well, I don't really know, have a play and see what you think?'. But I don't think there is a definitive right or wrong way to think about this. And I think the more versions of this thinking that I work through, the richer my understanding. And the richer my understanding of how limited my understanding actually is. And that feels important. So it should be important for you as well.

You're going to need scissors.

Cut out the strip on the right side of this page (I really hope it is an outside edge in your copy). Hold it in your hands and just consider the perspectives. For simplicity, all those arrows are now summarised by the central 'encounter'. And this encounter can be accessed by you as the reader via the researcher and the teacher. You can travel from your position as 'reader' along the strip of paper, and see who and what you get to. And if you move through the encounter you can come to know something of the students and learners. But this is still all very linear. Can we do a Martha and origami our experience?

What about if you bend this strip of paper into a loop. Bring those ends together. Pull yourself as the reader into contact with the learner. What does that mean for your reading of this account? Is there a way that you can travel in reverse, via the learner and student to gain access to the encounter. And approach the teacher and researcher in that way? Is there enough in this account to allow you to do that?

And before you commit this loop to permanence with a morsel of sticky tape, a dab of glue or a dreaded staple, just put a twist in one end of the strip. Hold the strip with Reader facing up and turn the other end so that Learner faces down. Bring the ends back together and you've created a mobius strip. Trace your travel towards and

Reader Researcher Teacher Encounter Student Learner

through the encounter. But now, your travel is infinitely dissected by the blank back of the strip. What happens here? Run your finger around the loop. Think, imagine and conceptualise. What happens on that blank side? You decide.

It's time for some answers

As we move into our last moments together, we need to turn our minds back to those questions we asked at the beginning of Method(ish):

1. Does the curriculum design within the Change Makers programme offer opportunities for students to demonstrate genuine authenticity in their work?
2. Does the curriculum design within the Change Makers programme offer opportunities for genuine authenticity of engagement between members of the class (students with students and students with teachers)?
3. Does this curriculum design make the student learning experience explicit to the teacher in a way that facilitates robust contemporaneous data collection and research to be undertaken?
4. Does any research undertaken in this context offer insights that extend beyond these particular classrooms?

Have we explored these issues and begun to formulate responses?

Well, I think that along our way through this story, we have reflected a lot on the third question. We have considered the nature of the data 'available' to the researcher. We've thought about how this data arises naturally from the learning and teaching encounter and we have seen how these sources of data firstly perform important pedagogical functions, only secondarily being interesting for the purposes of research. We have explored what can and cannot be observed, and what this can and cannot mean. And we have thought about what value such 'messy' and 'uncertain' data can have in inspiring and driving our imagination and further thinking.

But when it comes to the first two questions about authenticity, you might be forgiven for thinking that we had forgotten about those completely. We have not, so

far, been explicit in thinking about how all those classroom encounters and experiences relate to authenticity in any organised way. So now is our moment.

Whose authenticity is this anyway?

As this story has progressed, a little bubble of worry has been forming at the back of my mind. A little spring of doubt. A sort of bracing for the seemingly inevitable impact of a strong and valid critique. Does anything that happens in my classroom represent the students' authenticity, or is the class so structured (by me), supported (by me), and driven (by me) that it is in fact either the teacher's (my) own authenticity that is being (re)produced by the students, or the teacher's projection of what the students' authenticity 'should be'. After all, there is a clear power dynamic, and the students do really want to please the teacher (me).

An interesting example of this very question came up in the early 1900s with the work of Franz Cizek. An artist and "pioneer in creative education" (Meyer, 1939: p133), Cizek started art classes for children in Vienna. He believed that children were being failed by the lack of culture within the family environment, and the lack of opportunities for individuality within education. He felt that all children had the capacity to be endlessly creative if they were given the correct conditions. Initially, their excess energy needed to be exhausted, to reveal their "heritage of the ages" (Meyer, 1939: p133). Akin to Jung's collective unconscious (Jung, 1958), or Anzaldúa's (2015) 'el cenote' (an archetypal inner stream of consciousness), Cizek believed that within us all is a 'meta-memory' of everything human, a repository of experiences and images of generations past, of what it means to be human and to have lived. He believed that in a conducive environment (his classroom, with unlimited materials, no instruction and a warm reception for the work produced), this could be expressed artistically. Further, he believed that this rich seam of artistic inspiration was closer to the surface in children, and could be expressed in ways that were unaffected by the accumulated lived experience of an adult.

The artwork created by the children in his classes was exhibited internationally, hailed as a new artistic movement of 'child art'. And for many, this was the ultimate expression of authenticity. The untapped, innocent expression of a child. He inspired a new form of pedagogy that was taken up in arts education (Smith, 1984; Leshnoff, 2006) around the world.

However, he increasingly came up against heavy criticism. Although Cizek stated that the children were freed from adult expectations of how art should be created, and he saw his role as "tactfully removing the weeds that would, if allowed, strangle a child's innate sensitivity" (Duncum, 1982: p32), it became apparent that his feedback to the children about the work they produced was highly instructive. He refused to tell the children 'how' to draw specific images (telling them, for example, that they already knew how to draw a horse, and when it was drawn they would see that they could indeed draw a horse), but praised work that filled the canvas, figures that expressed movement, and combinations of lines and colour that demonstrated pleasing symmetry. As time went by, the work of his students became stylised and had commonalities that couldn't possibly represent the 'freedom of expression' he claimed (Duncum, 1982).

Contrary to this critique, students of Cizek (Smith, 1985) have reported their experiences of learning with him. They understood that Cizek was not teaching them art, or to be artists, but to be able to express their inner creativity. They would create small drawings, producing many in an hour, and then Cizek would review the drawings and select a few to be painted on large canvases. Every child wanted their drawing selected so that they had the opportunity to paint on a large canvas and have their painting put up on the wall. They describe creating drawings that they felt would improve their chances of being selected to paint, but they were not instructed or constrained in the drawings that they created.

So here we see that same power dynamic at play – the students have the freedom to create what they want, but they also want to please the teacher. And the students have ideas about what will or will not achieve that. And that desire, potentially, corrupts their authenticity.

Chasing the sparkle

Let's cast our minds back to Leon and his final project submission. Leon wanted to submit a report. And I as the teacher believed that Leon could submit something more than a report. He had completed a wonderfully insightful and inspiring project, and I thought he could submit something that reflected more of the spirit of the work he had completed than a report.

At that moment in time, Leon's heartfelt, personally motivated individual choice would have been to submit a report. So surely that would have been Leon's authentic action at that moment in time?

But I, as the teacher, believed that something else was possible. Within my own ambition for the module and for the students, I wanted the students to try to embody some of their work, to find different modes of expression for their ideas. I wanted the students to find ways to authentically communicate their experience of the project.

Now this is different to 'being authentic'. I wanted the students to communicate in a way that was 'authentic to' the idea and experience being communicated.

But I also believed that this would unlock a new moment of 'being' for the students. That the students would experience and 'come to know' something of themselves in this action. That by communicating the work that they themselves had completed authentically, they would also experience some level of authenticity of being, or of being seen, in that moment.

Now this is a big ask. To be seen, when perhaps the last thing you want is to be seen. The students are safe within their 'Imperial-student' identity. And now, here I am asking for something more. Asking for something that perhaps draws from their inner 'learner'. Something personal and from a, perhaps, deeply private place.

And who am I to even imagine that this is possible? To insist that this is within the students? To believe that this is necessary or desirable? This could just be my own twisted little fantasy that bears little relation to the students' own sense of authenticity. After all, it doesn't seem possible to be able to know about someone else's authenticity.

We might recognise an authentic action, but it is much harder to know what an authentic action would have been when we suspect inauthenticity (Sartre, 1957).

So what on earth made me believe that Leon should submit something other than a report for his project? And furthermore, if you remember, I actually suggested that he film himself cycling and submit that video. This idea never came from Leon at all. Leon told me about the cycling and how important it was to him, but was at a loss for how to represent that, other than to write it in a report.

My intervention was based on the presence or absence of 'sparkle' when Leon was speaking. He didn't enthuse about the value and depth of his report. He spoke of it in a downbeat manner. As though, no matter how valuable his project had been, it would necessarily fizzle out with a report. Because that is the nature of things. Of being a student. Of life. Of the asylum. But when he spoke about the content of his project, Leon was alive with possibility. He fizzed with insight, bravery and passion.

And at that moment, I felt that my role was to try to find a way to bridge these two realities. To show Leon that he could be alive and express his feeling state within his final project. And that he could do that in a way that wasn't a reduction into words, a poor relation of the experience. He could do it in a way that lived up to the experience, that even heightened his own knowing of the experience in a felt sense. Not articulated on paper and referenced. But expressed in kind.

And Leon offered the idea of cycling being important to him, so I offered the idea of capturing this on film. A coming together of his idea, with a push from my idea. And Leon took it, and struggled with it. Struggled with himself. But found a way to rise to this challenge and submit his amazing, poetic video.

But the question is, did Leon express his own authenticity, or mine? My idea of his authenticity? Did he make the video because he wanted to do it, to express himself in this way, or did he make the video to please me?

And does it matter? Even if Leon made the video for the 'wrong' reasons, inauthentically, did he then experience some authenticity of expression in being seen?

What do you think?

I think that Leon authentically wanted to include something of his experience of his project, but didn't know how to do it. He knew that his recent experiences of cycling said something deeply personal about him. But he couldn't see how this was a tangible 'thing' that could be submitted. I provided a mechanism to capture something of his authenticity. And secondly I provided the support for Leon to find the bravery to share this personal thing, to risk his grade on the sharing of this personal thing.

And I think that makes it authentic to Leon. Facilitated and cajoled, but authentic none-the-less. I acted as the mirror to help Leon see the possibilities within himself. But I could only reflect what was already there.

And in our acknowledgement of the awkwardness of this conversation, the difficulty of trying to submit something risky, the collaborative to-and-fro to find a solution to the sparkly issue (and the ensuing many, many, many emails asking for reassurance) we had a genuine and, I think, authentic engagement. We genuinely put our heads together and figured something out. I didn't go into that conversation with any awareness of the importance of cycling to Leon. I had no ideas about a video poem. This all came out of our openness and willingness to expose something of ourselves. Leon shared the cycling and his emotional response to it, and I shared my desire for him to achieve something that revealed this. My ambition as a teacher wasn't, in that moment, some dirty secret that I needed to conceal. It was a naked ambition for Leon to achieve something that he didn't think was possible.

An ever-expanding universe

With Cizek, the critique centred around the convergent nature of the work produced by his students. The emerging artistic genre of child art defined by stylistic and material qualities. Do we see that same convergence with my students? Do they all start videoing themselves cycling? Taping maps to the ceiling? Dancing? Or do we see a divergence of expression, of risk taking, of achievement?

I would strongly argue for the latter. I have taught these modules many times (both before and since this year under the microscope), and I don't see repetitions, similarities or convergence in the work produced by my students. I have never

before or since had a student video themselves cycling. In fact, I don't think I've had a poetic video submission since. But if a student wanted to submit something similar, and it was appropriate to the assignment and spoke of their own authenticity, I wouldn't hesitate to encourage them to do so.

So unless I am an infinite source of new, challenging and 'authentic' ideas, I am not solely responsible for what is happening. I set up the space, I invite the students in, I nudge them into participation, I pull at the loose threads of their own ideas and passions, I watch and listen for clues from each student about what might be hidden within – sometimes deeply and privately held (Leon) and sometimes bursting out at the seams (Garrett). And I delicately try to draw this out. And when necessary, I share my own ideas, fears and experiences. I try to share in the risk. Lend bravery and confidence where it is needed.

And this is not something that can be written into the curriculum. This in itself is not designed for. Instead, it is the space that is designed. The opportunity that the curriculum provides. That allows these moments to be lived together.

Not long ago, I was watching a repeat of a TV interview with David Bailey, the photographer (Mark Lawson Talks to…, 2004). The interviewer asked him if he knew what photos he would take when he was on the way to a shoot. Did he already have in mind the image that could be captured, that was required to answer the brief. And he laughed, and said that would be ridiculous. If he knew what image he would capture, he could just tell someone else to go and take the photo. He wouldn't be needed. And this made me smile. This is how I feel about our curricula.

> "Teaching is a performative act. And it is that aspect of our work that offers the space for change, invention, spontaneous shifts, that can serve as a catalyst drawing out the unique elements in each classroom" (hooks, 1994: p11).

I don't enter the classroom with any idea about what will happen. I enter the room full of possibility and enthusiasm. Keen to get to know the students, to begin plotting our journey together. And primed, ready to respond to the opportunities that I am

confident will present themselves. I cannot instruct other teachers to 'teach this same class'. I can only support them to understand how the curriculum works, and to be ready and present in the moment to respond to the students. With their own response. That will necessarily be different to mine – to what I would do in that same situation. Because their response will require a part of them, just as mine requires a part of me.

Breaking down the barricades

> *"any radical pedagogy must insist that everyone's presence is acknowledged. That insistence cannot be simply stated. It has to be demonstrated through pedagogical practices. […] Often before this process can begin there has to be some deconstruction of the traditional notion that only the professor is responsible for classroom dynamics"*
> *(hooks, 1994: p8)*

Moving away from the traditional learning experience of the teacher being the expert and holding all the power within the learning encounter is challenging for students. And in many cases, if I just abandoned my (metaphorical and literal) podium in the first minutes of the first class together, it would be completely alienating. As hooks (1994) refers to the necessary deconstruction required to engage in this way, I would add that some of this deconstruction needs to be explicit and experienced gradually. It has to be approached and engaged with, at least somewhat, knowingly and willingly.

To impose this pedagogy on a class of students blindly would just be a further act of power, denying the students choice and agency in the encounter. And so how can this be approached in a setting where the dominant pedagogy is traditional and accompanied by a strong cultural identity?

As we saw with our first year class, this began with a deconstruction of the pedagogy through our disruption of the concept of a lecture and a lecture theatre. By focussing on our denial of the identity of the place, we were able to open up a new space for pedagogical engagement that eventually saw the students writing

their own mark scheme, and feeling free to present and share their own ideas. Furthermore, that presenting and sharing of ideas was not managed and supported by me, but by each and every student in the audience. By their eye contact, gentle nodding, warmth and generosity.

With the second year students, there was a more abrupt and rude awakening. When we began the concept-mobiles task, there was deconstruction raining down from the ceiling. There were no rules, no deadlines, no criteria for success. But this was ameliorated by my own retention of power in terms of holding the ultimate control of 'time'. And also by my own deconstruction. I set up the concept mobiles task as a response to my own, declared, failing as a teacher to move the students through the initial task. And that admission, was important.

> "When education is the practice of freedom, students are not the only ones who are asked to share, to confess. Engaged pedagogy does not seek simply to empower students. Any classroom that employs a holistic model of learning will also be a place where teachers grow, are empowered by the process. And that cannot happen if we refuse to be vulnerable while encouraging the students to take risks." (hooks, 1994: p21)

And with our third and fourth year students the deconstruction is apparent from the first moments. The roles of teacher and student are defined and refined explicitly within the team-based learning set-up. The students know that they are driving their own learning, their own explorations of events from history and will not be instructed. Instead they will be able to ask for unlimited feedback. With these more mature students, it is usually a single student (Garrett) who will publicly push back and articulate this deconstruction for the rest of the class. A back to front pedagogy that privileges the student experience of their own learning.

A break up and a make up

So it sounds rather as though the students are engaging in a transformation, from engaging with a traditional to radical pedagogy. From rote learning and teacher as expert, to something more indeterminate. A space that requires their engagement before it can be defined. And often accounts of my teaching evoke responses in others relating to transformative learning (Mezirow, 2000).

Traditionally this is viewed as a multi-step process whereby students experience a dilemma, a situation that cannot be resolved using their current approach. This leads to self reflection and recognition of the need to change that approach. New ideas are considered and rehearsed. New skills are sought and acquired. And a new competence emerges. The student has been transformed.

I have never quite felt comfortable with this view of transformation as it implies that the final stage of the process includes something new, that wasn't present before. And I think that with my students this is not necessarily the case. Their experiences in my classroom do not create 'new' selves. Or new skills even. Rather their experiences re-open existing possibilities and ideas. Re-centre the students in their own (learner) selves. It is a re-awakening and a re-valuing. A re-humanisation. A move away from the institutionally or culturally favoured, required or asylum-driven way of working in favour of a humane and self-celebratory approach. And much more aligned with Johansson and Felten's definition of an "ongoing process of aligning ones actions and behaviours with one's evolving sense of identity" (2014: p1).

In fact, there is a lot of decentering going on. Within the classroom as a whole, there is a perceived decentralisation of the 'academic' in favour of the 'personal' and 'authentic' (although the work the students present is still, arguably, academic in nature and quality). Within the encounter there is a decentering of power from the teacher to a collaborative and disseminated sense of power. And within the individual there is a decentering of the dominant institutionally driven 'student' identity in favour of the more holistic and person-centred 'learner'.

And this is not to say that the students (and teachers) are from this point forward transformed. My students don't attend their next lecture and begin disrupting the nature of the room with climbing rope. They don't reject a required essay and instead insist on submitting a video recording. But they do view those, more traditional encounters differently – as being part of a spectrum of ways of being and learning, rather than existing as the only ways to be and learn.

And so we circle back to polyvalence. To the holding of multiple realities. And to finding a way to bring these into opposition when necessary and into harmony when possible.

Neither this nor that

I want to return to Homi Bhaba's (1990) third space for a moment. That space rich in possibility. The space that is not about the set up, the origin or the who that created it. That is not about the constituent collaborators. But rather is about the infinite possible positions that might emerge.

I find a lot of the ideas we are exploring here, push me to be one thing or another. Push the students and our encounters in the same way. Either I have the power and expertise or the students have it. Either I decide what happens or the students decide. But what if that is not what is happening? Can we even conceptualise the possibilities without resorting to some form of binary?

In some moments in the classroom, I retain power. In other moments, the students hold power. In yet more moments, something completely other drives our actions and collaborations.

And although I 'know' lots of things, it is not thing-knowledge that gives me my moments of power. It is my experience of navigating these encounters. And at other moments, it is the students' self-knowledge that is the most potent form of power. And in yet still more moments, we are pulled along and informed by something else entirely.

And the recognition of this non-binary sense of being feels important. It is important for me as designer – to design spaces and moments in the curriculum that allow this un-named, un-known entity to be present in the classroom. It is important for me as a teacher – to know when to lead, when to be lead and when to sit back and see what is happening. And for me as a researcher, to accept that while I can both 'fit' and 'not fit' as a conventional, traditional, academically acceptable researcher, I can also try to find another way. A way that honours all that I research. The academy into which the research will be received, but also the participants, the

nature of the encounter and the learning, myself as a practitioner researcher and all that lies between and beyond.

It's time for a take-away (I'm too tired to cook)

> *"In formulating new ways of knowing, new objects of knowledge, new perspectives and new orderings of experiences, I grapple, half unconsciously with a new methodology[…] I come to know how to 'read' and 'write' […] I use various storytelling formats consistent with the experiences that I reflect on, and I use whatever language and style correspond to the ways I do the work […] I cannot use the old critical language to describe, address or contain new subjectivities. […] I reflect on the psychological/mythical aspects of my own expression. I scrutinise my wounds, touch the scars, map the nature of my conflicts, croon to las musas that I coax to inspire me, crawl into the shapes the shadow takes, and try to speak with them"*
> *(Anzaldúa, 2015: p4)*

And so we come to the final question. Does anything discovered, revealed or inspired by this research have relevance outside of my own classroom?

I have an answer to this question (I think), but you are going to have to bear with me. Because it is going to sound paradoxical. But stick with it.

I have chosen to explore and represent my classroom in the most authentic way that I could. Partly because my research is about authenticity, but also so that it can have meaning beyond my own four (classroom) walls. Only by being true to myself, my students and our experiences together, can anything of value be taken out of this context and imbued with new value in another, perhaps your own, context.

You might remember the poems you've been encountering between the sections of this story. And you might remember that they are derived from a transcript of a recorded conversation that formed the basis of a conference presentation that four of my students gave about their experiences learning on these modules.

This was a joint presentation, but I was really there to introduce the students' film and contextualise their experiences. The students were free to say whatever they wanted. We agreed that the students would talk to each other about their experiences of co-production in the classroom. All those moments when the students made choices in their own learning. And at the start of the conversation, we taped a piece of paper up behind the camera with four headings to guide their conversation (what were the classes like, what choices did we make, what was the role of the teacher, what did we learn about ourselves). The students thought that a natural conversation would work best, and so they asked each other about their experiences in their different classes. And the students spoke freely, joked and teased each other, and reflected on their experiences.

I had offered to write the abstract for the conference and we read it together before we started filming.

There was silence after the students finished reading. And no one was willing to break the silence. Eventually, Smithson was brave enough to say that he didn't like the abstract. My use of academic educational and theoretical language created an abstract (excuse the pun) reality that was irreconcilable with their experiences. It didn't feel like it was about them or their classes at all. I had alienated them from their own experiences.

I had been concerned with our abstract being accepted to an academic conference. I had been concerned with wringing epistemological and theoretical significance out of their experiences. With dressing up their reality to somehow make it 'more acceptable' to others.

Now you might argue that this was a valuable educational opportunity. For me to help the students understand how to present ideas in an academically acceptable fashion. To help the students understand the rules of engagement with the academy.

But I didn't see it like that. I saw it as a 'selling out'. As a 'being afraid' of my own authenticity. Of a failure to stand up for our experience on our own terms. Of a dismissing of the student experience as irrelevant compared to the reified, theorised and academicalised version that I was proposing to present.

I could have retained the 'student voice' to exemplify their experience, but then persisted in using academic language to present the key ideas. But this would have 'othered' the students. It would have signalled their 'voice' as inadequate and inarticulate within the broader academic discourse. This would not have truly honoured their experience or their reflection.

And so with this work, I have gone the other way. Far, far, far in the other direction. I have tried to retain every essence of myself and the students within this work. Authentically. I have represented my thoughts and ideas as I think them. Not elevated into academic language and jargon. But as they live and breathe within me. And I have tried to honour the students in the same way.

But at the same time, I have underpinned and defended my approach academically. I have explored academic, theoretical and cultural ideas that might help us to understand what is happening in this story. With, between and beyond the students and me.

And I think that it is precisely because of this authenticity that this account has meaning beyond my classroom. If I were to boil down this experience, detail and theorise it beyond its existence, it would fail to have experiential valency. It would not exist for you, the reader. You would take my word (or not) for what I was saying, for the meaning that I was imposing. And you would then seek to reverse this work, relating these theoretical musings back into experiences of your own. And they might have some value. But here and there, they wouldn't fit. They wouldn't work for you. And you would have no option, but to use (or not use) this misfitting distillation as presented.

But simply by presenting the whole, experiential world on its own terms, and by trying to only work within this world, within the terms of reference of this world, within the

aesthetic and linguistic reality of this world, you have a richness and multiplicity of ideas to play with. You might take away something completely different from the next reader. You might recognise something completely different in the story from the person sitting next to you on the train. Or in the staffroom. Or in the classroom. But your reading of this story is your own. And it is valid, it comes from a meeting of my classroom with yours. Of my reality with yours.

I am not presenting a solution to any specific problem, I am not presenting a blue-print that should inform your own practice, "to do so would undermine the insistence that engaged pedagogy recognise each classroom as different, the strategies that must constantly be changed, invented, reconceptualised to address each new teaching experience" (hooks, 1994, p10).

Rather, I am offering a world of experience for you to play in. For you to agree with, disagree with, be inspired by, be infuriated by.

I want to invoke, provoke and evoke your own authentic response. And if it is authentic, then it will not fail to permeate your practice – or at the very least, your experience of your practice.

And that is where the value of this work lies.

Found Poem 7: The iron grip

Marcus Smithson Daphne Garrett

I loved every minute

of what we've done

I felt the iron grip over my brain let go

above everything that I'll take into life

that is the greatest gift

I feel like myself again

that's nice

I haven't felt like myself for three years

we should really encourage this

getting people to appreciate themselves

the weird, strange ideas they have

they'll do better

I've actually learned something

I've just taken something

it's genuinely the best part of my week

I learned about myself

it was real good

We're learning a lot, but it doesn't feel like it

learning just happens

the environment is great

putting different people together

seeing what people come up with

feeling ok with sharing

talking about science

there's that pressure

not wanting to share

a lot of ego

I see what you mean, coming with my group

I start smiling, we're a bunch of cuties

Postscript

What would that have been like? To have had such a teacher who applauded you for letting your thoughts run wild? Encouraged you to live beyond gutters and margins, frames and apps, the limits of map and page?

(Danielewski, 2014: p x)

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Appendix 1

Table of Change Makers Module Development

Academic Year	Module	Detail
2012-13	Energy and Climate Change	New pilot 1st year module (8 weeks)
	Water and Global Health	New pilot 1st year module (8 weeks)
	Engineers without Borders Challenge	New pilot 1st year module (8 weeks)
	Visualising Global Challenges	New pilot mixed years module (8 weeks)
2013-14	The World Today	New 1st year module (8 weeks) replacing Energy and Climate Change
	Sustaining Our Future	New 1st year module (8 weeks) replacing Water and Global Health
	Engineers without Borders Challenge	Extended and adjusted 2nd year module (20 weeks)
	Visualising Global Challenges	Extended and adjusted 2nd year module (20 weeks)
	Economic Enterprise	New pilot 2nd year module (8 weeks)
2014-15	The World Today	Refined 1st Year module (8 weeks)
	Sustaining Our Future	Refined 1st Year module (8 weeks)
	Engineers without Borders Challenge	Refined 2nd year module (20 weeks)
	Visualising Global Challenges	Refined 2nd year module (20 weeks)
	Economic Enterprise	Extended and refined 2nd year module (20 weeks)
	Lessons From History	New 3rd/4th year module (20 weeks)

	Global Challenges Independent Project	New 3rd/4th year module (20 weeks)
2015-16	The World Today	Refined 1st Year module (8 weeks)
	Sustaining Our Future	Refined 1st Year module (8 weeks)
	Design for Sustainable Development	Refined and renamed 2nd year module (20 weeks)
	Visualising Global Challenges	Refined 2nd year module (20 weeks)
	Design for Economic Development	Refined and renamed 2nd year module (20 weeks)
	Lessons From History	Refined 3rd/4th year module (20 weeks)
	Global Challenges Independent Project	Refined 3rd/4th year module (20 weeks)
2016-17	The World Today	Refined 1st Year module (8 weeks)
	Mini Collaborative Research Project	New pilot 1st year module (8 weeks, delivered collaboratively with L.S.E.)
	Design for Sustainable Development	Refined 2nd year module (20 weeks)
	Visualising Global Challenges	Refined 2nd year module (20 weeks)
	Design for Economic Development	Refined 2nd year module (20 weeks)
	Lessons From History	Refined 3rd/4th year module (20 weeks)
	Global Challenges Independent Project	Refined 3rd/4th year module (20 weeks)
2017-18	The World Today	Refined 1st Year module (8 weeks)
	Exploring Democracy	New 1st Year module (8 weeks)
	Design for Sustainable Development	Refined 2nd year module (20 weeks)
	Visualising Global Challenges	Refined 2nd year module (20 weeks)
	Design for Economic Development	Refined 2nd year module (20 weeks)

	Lessons From History	Refined 3rd/4th year module (20 weeks)
	Global Challenges Independent Project	Refined 3rd/4th year module (20 weeks)
2018-19	The World Today: Analysing Global Progress	Refined and developed 1st Year module (8 weeks)
	The World Today: Collecting and Understanding Data	Refined and developed 1st Year module (8 weeks)
	The World Today: Innovating for Change	Refined and developed 1st Year module (8 weeks)
	Design for Sustainable Development	Refined 2nd Year module (20 weeks)
	Building Happiness	New 2nd year module (20 weeks)
	A Smart Life	New 2nd year module (20 weeks)
	Sustainable Me	New 2nd year module (20 weeks)
	Lessons From History	Refined 3rd/4th Year module (20 weeks)
	Creative Futures	New 3rd/4th Year module (20 weeks)

Appendix 2

The World Today: Analysing Global Progress Module Specification

Module Title	The World Today: Analysing Global Progress
Module Tagline	Evaluate global cooperation and progress in your choice of global issue
Module Introduction	The 17 Sustainable Development Goals provide us with a framework to organise our thinking and action around major global issues. But how effective are these goals at promoting change? How are issues conceptualised and communicated? How are communities engaged in enacting change for themselves and others? This module will give you the opportunity to focus on a global issue that interests you, along with a team of like-minded students. As well as your own area of detailed study, you will have access and be able to inspire and encourage the progress of other teams by reviewing their work and finding out about the issues that they have been studying. For each global issue, we will have students focusing on global progress, use of data and innovating for change. This means our work will build into a greater collaborative project with multiple dimensions. Although you will contribute individually to your projects, you will also be working in a student team with a co-learner to help your progress and keep you on track during the course. Our co-learners are PhD students with an interest in global issues and skill development. During the course we will help you to consider what skills are needed to tackle global issues

	and help you to set goals and work on these skills for yourself. This is an active learning module with continuous assessment. This helps to minimise hard deadlines and encourages you to work a little at a time throughout the course. We will engage in many practical large and small team activities to develop an understanding of the complexity of global issues. There will be many opportunities to receive feedback – both from the co-learners and the module leaders.
Module Learning Outcomes	On successful completion of the module you will be able to: • Write a suitably focussed research question • Perform library research to bring together a range of sources and resources pertinent to the research question • Understand the requirements and methods for evaluating progress • Analyse the range of sources collected to identify progress made, challenges remaining, and relevant policy and global co-operation initiatives • Situate your own findings in a wider research context • Show a developed understanding based on your own work • Work collaboratively with other students to contribute to a wider project • Make predictions about how the situation might change in the future

Module Indicative Content	You will work both in your module cohort and in teams alongside those in 'Global Challenges: Collecting and Understanding Data' and 'Global Challenges: Innovating for Change' to develop an in depth understanding of a single global challenge. In this highly interactive module, you will undertake several big collaborative tasks to develop your understanding of global issues and help you to develop the thinking, problem solving and creativity skills necessary to tackle these issues. In addition, you will focus on a small area of study with a team of students from the different streams of the module to present an overview of a particular global issue. Your role will be to provide some input into strategic cooperation and goal setting at both a local and international level on your chosen issue.
Module Assessment	• Module Performance (40%) - a continuous assessment of your critical engagement with the module content and process • Wiki (40%) - documentation of your research and data collection process, analysis and conclusions, produced in small groups in class time • Group Presentation (20%) - a short presentation of key points of your research findings
Module Credit Status	Non Credit
Module Dates/Duration	The module runs for eight weeks in the autumn term
Module Study Hours	16 contact hours and 8 additional study hours
Module Timetable Slot	Tuesdays 4-6pm

The World Today: Collecting and Understanding Data Module Specification

Module Title	The World Today: Collecting and Understanding Data
Module Tagline	Consider how data informs strategic action in your choice of global issue
Module Introduction	The 17 Sustainable Development Goals provide us with a framework to organise our thinking and action around major global issues. But how effective are these goals at promoting change? How are issues conceptualised and communicated? How are communities engaged in enacting change for themselves and others? This module will give you the opportunity to focus on a global issue that interests you, along with a team of like-minded students. As well as your own area of detailed study, you will have access and be able to inspire and encourage the progress of other teams by reviewing their work and finding out about the issues that they have been studying. For each global issue, we will have students focusing on global progress, use of data and innovating for change. This means our work will build into a greater collaborative project with multiple dimensions. Although you will contribute individually to your projects, you will also be working in a student team with a co-learner to help your progress and keep you on track during the course. Our co-learners are PhD students with an interest in global issues and skill development. During the course we will help you to consider what skills are needed to tackle global issues

	and help you to set goals and work on these skills for yourself. This is an active learning module with continuous assessment. This helps to minimise hard deadlines and encourages you to work a little at a time throughout the course. We will engage in many practical large and small team activities to develop an understanding of the complexity of global issues. There will be many opportunities to receive feedback – both from the co-learners and the module leaders.
Module Learning Outcomes	On successful completion of the module you will be able to: • Write a suitably focussed research question • Assess different methods of data collection • Collect your own data • Perfom basic analysis of your own data • Draw conclusions based on your own collected data • Situate your own findings in a wider research context • Show a developed understanding based on your own work • Work collaboratively with other students to contribute to a wider project • Make predictions about how the situation might change in the future
Module Indicative Content	You will work both in your module cohort and in teams alongside those in 'Global Challenges: Analysing Global Progress' and 'Global Challenges: Innovating

	for Change' to develop an in depth understanding of a single global challenge. In this highly interactive module, you will undertake several big collaborative tasks to develop your understanding of global issues and help you to develop the thinking, problem solving and creativity skills necessary to tackle these issues. In addition, you will focus on a small area of study with a team of students from the different streams of the course to present an overview of a particular global issue. Your role will be to provide some input into the use of data to support local and international progress on your chosen issue.
Module Assessment	• Module Performance (40%) - a continuous assessment of your critical engagement with the module content and process • Wiki (40%) - documentation of your research and data collection process, analysis and conclusions, produced in small groups in class time • Group Presentation (20%) - a short presentation of key points of your research findings
Module Credit Status	Non Credit
Module Dates/Duration	The module runs for eight weeks in the autumn term
Module Study Hours	16 contact hours and 8 additional study hours
Module Timetable Slot	Tuesdays 4-6pm

The World Today: Innovating for Change Module Specification

Module Title	The World Today: Innovating for Change
Module Tagline	Create new ideas and strategies and see how they could be applied in the real world
Module Introduction	The 17 Sustainable Development Goals provide us with a framework to organise our thinking and action around major global issues. But how effective are these goals at promoting change? How are issues conceptualised and communicated? How are communities engaged in enacting change for themselves and others? This module will give you the opportunity to focus on a global issue that interests you, along with a team of like-minded students. As well as your own area of detailed study, you will have access and be able to inspire and encourage the progress of other teams by reviewing their work and finding out about the issues that they have been studying. For each global issue, we will have students focusing on global progress, use of data and innovating for change. This means our work will build into a greater collaborative project with multiple dimensions. Although you will contribute individually to your projects, you will also be working in a student team with a co-learner to help your progress and keep you on track during the course. Our co-learners are PhD students with an interest in global issues and skill development. During the module we will help you to consider what skills are needed to tackle global issues and help you to set goals and work on these skills for yourself.

	This is an active learning module with continuous assessment. This helps to minimise hard deadlines and encourages you to work a little at a time throughout the course. We will engage in many practical large and small team activities to develop an understanding of the complexity of global issues. There will be many opportunities to receive feedback – both from the co-learners and the module leaders.
Module Learning Outcomes	On successful completion of the module you will be able to: • Write a suitably focussed problem definition • Perform library research to identify innovations that are in development to address the problem • Understand the process of developing, testing, implementing and evaluating potential innovations • Analyse the range of innovations identified to understand progress made, challenges remaining and relevant next steps • Situate your own findings in a wider research context • Show a developed understanding based on your own work • Work collaboratively with other students to contribute to a wider project • Make predictions about how the situation might change in the future
Module Indicative Content	You will work both in your course cohort and in teams alongside those in 'Gloabl Challenges: Collecting and

	Understanding Data' and 'Global Challenges: Analysing Global Progress' to develop an in depth understanding of a single global challenge. In this highly interactive module, you will undertake several big collaborative tasks to develop your understanding of global issues and help you to develop the thinking, problem solving and creativity skills necessary to tackle these issues. In addition, you will focus on a small area of study with a team of students from the different streams of the module to present an overview of a particular global issue. Your role will be to provide some input into existing innovations being implemented in your challenge area, and to suggest areas for future innovation.
Module Assessment	• Module Performance (40%) - a continuous assessment of your critical engagement with the module content and process • Wiki (40%) - documentation of your research and data collection process, analysis and conclusions, produced in small groups in class time • Group Presentation (20%) - a short presentation of key points of your research findings
Module Credit Status	Non Credit
Module Dates/Duration	The module runs for eight weeks in the autumn term
Module Study Hours	16 contact hours and 8 independent study hours
Module Timetable Slot	Tuesdays 4-6pm

Building Happiness Module Specification

Module Title	Building Happiness
Module Tagline	Explore the concept of happiness and design and test a variety of measures to improve happiness in your own life
Module Introduction	Have you ever thought that you might be happier if only you could... (fill in the blank)? In this module, you have the opportunity to think critically about your own life and consider what happiness means to you. That might be having a purpose in life, spending quality time with friends, taking care of your body or being grateful for what you have. Whatever the answer, it will be different for everyone. Work alongside other students studying sustainability and smart living, to explore the concept of happiness. What is happiness? What is it for? Does it matter? How can we measure it? Using a variety of 'theories' of happiness, think about what happiness means to you in your life and community. Through discussions, research and reflection you will develop your own personal theory of happiness. You will then develop a range of ideas to increase happiness and test your favourite idea in the real world. This module will provide you with the foundations to evaluate happiness in your life and provide you with the space and time to consider what is important to you.

Module Learning Outcomes	On successful completion of the module you will be better able to: • Examine key theories relating to 'happiness' in the world • Define how 'happiness' can be promoted, supported and measured • Create a personal definition or theory of happiness • Create a personalized brief – analyzing your own life to identify opportunities to increase happiness • Develop a rationale for assessing the needs, benefits and successes of implementing such a change • Design and test a targeted happiness initiative in your own life • Evaluate the impact of the initiative
Module Indicative Content	This module will create an overarching critique of the concept of happiness and how it applies to you. You will begin by examining a range of theories of happiness, and develop you own theoretical understanding of the concept. You will then create your own design briefs using video or photo diaries and rotate through a series of mini design and creativity exercises before picking one idea to develop, test and evaluate.

Module Assessment	• Practical: Personal Happiness Footprint Poster (10%) • Coursework: Video/Photo Diary Brief and Analysis (30%) • Practical: Design Process Assessment (20%) • Practical: Final Design Portfolio (40%)
Module Credit Status	Degree Credit or Extra Credit: 7.5 ECTS
Module Dates/Duration	20 weeks in the autumn and spring terms
Module Study Hours	40 contact hours and 150 independent study hours
Module Timetable Slot	Mondays 4-6pm

Sustainable Me Module Specification

Module Title	Sustainable Me
Module Tagline	Explore your own sustainability footprint and design and test a range of sustainability innovations to limit your impact on the environment
Module Introduction	Have you ever thought that you would be more sustainable if only you could... (fill in the blank) ? In this module, you have the opportunity to think critically about your own life and consider what sustainability means to you. That might be eating more thoughtfully, eliminating plastic, or conserving energy. Whatever the answer, it will be different for everyone. Work alongside other students studying smart living and happiness to explore the concept of sustainability. Is sustainability all about energy and recycling, individual action, political will or something else entirely? What can you, as an individual, do in your life and community to live more sustainably? Through discussions, research and reflection you will develop your own personal theory of sustainability. You will then develop a range of ideas to improve your sustainability and test your favourite idea in the real world. This module will provide you with the foundations to evaluate sustainability in your life and provide you with the space and time to consider what is important to you.

Module Learning Outcomes	On successful completion of this module you will be better able to: • Understand the premise, benefits and challenges of sustainable living • Develop an individual analysis of your planetary footprint • Create a personalised brief – analysing your own life to identify opportunities to increase sustainable practice • Develop a rationale for assessing the needs, benefits and success of implementing such a change • Design and test a targeted sustainability initiative in your own life • Evaluate the impact of the initiative
Module Indicative Content	You will begin by investigating your own planetary footprint. You will then explore the idea of sustainable living on an individual level. You will develop a method of monitoring your own impact on the planet. You will then create your own briefs using video or photo diaries and rotate through a number of mini design and creativity exercises before picking one idea to develop, test and evaluate.
Module Assessment	• Practical: Planetary Footprint Poster (10%) • Coursework: Video/Photo Diary Brief and Analysis (30%) • Practical: Design Process Assessment (20%) • Practical: Final Design Portfolio (40%)

Module Credit Status	Degree Credit or Extra Credit: 7.5 ECTS
Module Dates/Duration	20 weeks in the autumn and spring terms
Module Study Hours	40 contact hours and 150 independent study hours
Module Timetable Slot	Mondays 4-6pm

A Smart Life Module Specification

Module Title	A Smart Life
Module Tagline	Explore the concept of SMART living and investigate whether any areas of your daily life could be innovated with a data-driven approach
Module Introduction	Have you ever wondered why there wasn't a better way to use data to... (fill in the blank) ? In this module, you have the opportunity to think critically about your own life and consider what influence SMART technology has on you. That might be maximizing your efficiency, helping you identify problems, improving your sleep or keeping you glued to your phone. Whatever the answer, it will be different for everyone. Work alongside other students studying happiness and sustainability to explore the concept of smart living. What does a data-responsive environment really look like? What elements of your own life are 'data-driven?' What is the point of smart technology? Using a range of innovative techniques, map the impact of 'data' on your daily life. Through discussions, research and reflection you will determine an area of smart technology to focus on. You will then develop a range of ideas or potential applications to utilize or improve smart tech and test your favourite in the real world. This module will provide you with the opportunity to evaluate the impact of data on your life and provide you with the space and time to consider how you want to leverage that data.

Module Learning Outcomes	On successful completion of this module you will be better able to: • Understand the premise, benefits and challenges of a 'smart city' • Apply the responsive, data-driven approach to innovating other aspects of daily life • Create a personalised brief – analysing your own life to identify opportunities to innovate • Develop a rationale for assessing the needs, benefits and success of implementing such an innovation • Design and test a targeted innovation in your own life • Evaluate the impact of the innovation
Module Indicative Content	You will begin by examining the SMART technology around you. You will then explore the concept of smart living and apply the responsive data-driven approach to various different elements of your life (e.g. transport, education, household, healthcare, arts, entertainment). You will develop a rationale and method for assessing the benefits (or not) of smart processes. You will then create your own briefs using video or photo diaries and rotate through a number of mini design cycles before picking one idea to develop, prototype, test and evaluate.

Module Assessment	• Practical: Smart Living Footprint Poster (10%) • Coursework: Video/Photo Diary Brief and Analysis (30%) • Practical: Design Process Assessment (20%) • Practical: Final Design Portfolio (40%)
Module Credit Status	Degree Credit or Extra Credit: 7.5 ECTS
Module Dates/Duration	20 weeks in the autumn and spring terms
Module Study Hours	40 contact hours and 150 independent study hours
Module Timetable Slot	Mondays 4-6pm

Lessons From History Module Specification

Module Title	Lessons From History
Module Tagline	Take a look at historical global phenomena and disasters to see what lessons can be taken forward to help better prepare the world to tackle global challenges
Module Introduction	In Lessons From History you will spend time exploring different historical disasters. These include technical, environmental, health and social disasters. For each disaster, you will work through a cycle of activities that will develop a range of different skills. Beginning with the whole class together, we will consider what it means to understand a historical event. How much do you need to know? How many perspectives do you need to consider? Is it ok to not know things about an event? We will then consider each new event together, identifying important aspects to guide your independent research. Working in teams, you will research what happened and develop your own 'knowledge base' that documents the facts, controversies and mysteries about each event, whilst also considering what types of information and sources are available. You will write your own question and answer in your team for each disaster and you will receive really detailed feedback about your writing – specifically aiming to develop your persuasion and argumentation skills. In class, there will be many opportunities to develop your negotiation and communication skills – both within your teams and between teams. Some of the

	disasters that we study are selected by the lecturer, but you will also have the opportunity to pick different disasters in your teams and to vote on one disaster to study as the final cycle of the module. By the end of the module, every student will have explored thinking and writing about history in new ways and we work together as a class to help everyone write their own individual essay. We will look at how each skill we have developed in the module can help you write your essay – and there will be lots of writing support and time available in class. You will have lots of opportunities to discuss your essay ideas – and help other students think about their ideas, before following a writing formula to help you write something very individual and personal to you.

Module Learning Outcomes	On successful completion of the module you will be better able to: • develop a systematic knowledge and critical understanding of historical events • synthesise a set of key learning points from historical events and their legacy • apply these to current approaches to managing global challenges, suggesting areas where improvements could be made • identify areas for further self-directed study and develop considered insights using inputs from a range of sources and disciplines to construct a critical review of our attempts to manage the world in which we live • engage with the ethical, social, economic and political aspects of historical events • plan, monitor and evaluate your own learning, and develop methods of accountability within your teams

Module Indicative Content	This module examines of a number of key historical events that can inform our thinking about risk and disaster management, and reflect the complexity of our interactions with the world. You will develop your own understanding of these events, before considering the event from a specific perspective. A range of events will be considered (some set events and some nominated by students), which might include: • Chernobyl (nuclear safety) • Aral Sea Regression (ecosystem destruction) • Challenger Disaster (technological and political disaster) • South East Asia Tsunami (large scale, multinational natural disaster) • Haiti Earthquake (natural disaster with problematic disaster response) • Great Chinese Famine (food security) • Sudan Conflict (war and fragile states) • Eyjafjallajökull Eruption (risk management) • L.A. Riots (civil unrest) • B.S.E. Crisis (public health crisis)

Module Assessment	• Practical/Examination: (Individual and Group) – team based learning comprehension quizzes (20%) • Coursework: short answer questions applying key learning points to contemporary issues and strategy. Includes annotated bibliography, knowledge base, question and 250-word answer (40%) • Coursework: (Individual) - Essay integrating learning from several of the events covered to create a plan for future disaster management - 1,500-2,000 words (40%)
Module Credit Status	Degree Credit or Extra Credit: 7.5 ECTS
Module Dates/Duration	20 weeks in the autumn and spring terms
Module Study Hours	40 contact hours and 150 independent study hours
Module Timetable Slot	Thursdays 4-6pm

Appendix 3

Change Makers Observation Policy

(as provided in the student handbook)

Observation by lecturers and co-learners

All Global Challenges modules are designed to be responsive and dynamic. This means that the exact activities that you complete in class, and the way that the module is designed is flexible and can be adjusted to best suit you as an individual student and your class as a group of students.

This is a very exciting way to approach learning and teaching, but it requires careful monitoring and consideration throughout to ensure that we make good choices. We want to make sure that you have enough support to tackle the things you find most difficult, and enough challenge to push you further on the things that you find easier. These choices are not the same from group to group, so it is really important that we get to know you and your class as well as we can.

For this reason, we engage in continuous observation during classes. We will pay attention during class discussions to remember what has been said and follow this up at a later point. We might join in with your group working discussions, or just listen in to see how you are getting on. We might watch how people are getting on – are people interested, bored, working through problems quickly or taking more time than we anticipated. We will also observe how you are working online by reviewing your contributions on Blackboard Learn. We can see how you are working as a team, how you are putting ideas together, and how you are approaching completing your work.

All this observation means that we can offer you choices on how to proceed with the module, and make adjustments to make sure that the module is offering you the best experience that it possibly can.

As well as using these observations in real-time to help you and your classmates specifically, we also review these observations within our teaching team to make changes to the modules for the following year. In this way we can continuously respond to your feedback and experience to improve the modules for future students. Furthermore, we can sometimes share these observations more widely across college to help other modules and departments improve their student experience.

When we use our observations in this way, we do not talk about individual students, and if we want to share an example of something that happened or something that you said, we do this anonymously, without identifying you.

Of course, if we want to share something amazing that you have done, we want you to take credit for this. In this case, we will always contact you to ask your permission to share your work or your experience.

In summary, our observations include:
Things that we see and hear in class
Examples taken from your work in progress or your final submission on Blackboard Learn
Data from Blackboard Learn about how you have been working – such as how much time you have been logged in, at what time of day and on which days
Comments or questions that you have made or asked in person or via email

Observation by external individuals

The Global Challenges modules are very different to a standard learning and teaching experience, and we have won both student-nominated and international education awards for the design and delivery of the modules. This means that other people are often very interested to come and experience what happens in a typical class.

You might see teaching staff from across College sitting in for a class, or even international guests who have travelled from around the world to observe a class.

These guests are not observing you as individuals, and are not judging you in any way. They have come to try and understand how our modules work, and to experience and understand a little bit of what you are experiencing in the class.

We will always introduce the guests, and give you as a class an opportunity to bring them up to speed on how the class works, and the specifics of your work. You are very welcome to talk to the guests if you would like to do so. However, if you don't want to talk to them, this is absolutely fine too.

Observation by you

With all this observation going on, it would be a shame if you were to miss out on joining in. There are lots of ways that you can observe other students to help improve your own learning and experience in the class.

If you pay attention to what is going on around you, take an interest in the work of other students and share how you are getting on, you will have a much richer learning experience. Learning from your fellow students, or peer learning, is one of the most important and enduring ways to learn in class. See how other students approach their individual work or seeing how another team is collaborating can provide you with valuable insights into good practice and into your own approach.

Sometimes you will see something that is an excellent example of how to do something. You could try to incorporate something of this into your own approach. Sometimes you might see something that is an ineffective way of working – this might give you the opportunity to avoid following that same path or making that mistake.

As long as you are not copying the work of another student, there is nothing wrong with learning from those around you. Take inspiration from what you see and you'll soon find that you're inspiring other students too.

Appendix 4

The design-pedagogy-research triptych in action

Design Feature	Pedagogical Rationale	Research Utility
Observation Policy - we publish and discuss with the students our policy of observing the students' working in class and remotely (online), and encourage the students to observe us and each other	Prepares the student to engage with being observed and to observing others, enhancing their learning experience and encouraging them to make the most of informal feedback opportunities	Allows observational 'teaching' data to be collected as a valid and useful part of the learning and teaching experience. With ethical approval, this data can later be interrogated for research purposes
Learning Pre-Assessment - the students reflect on what resources and skills they bring to the module, and rate their ability against a range of skills; the students select two skills to focus on developing during the module	Engages the student to think about their prior learning as well as consider themselves as a whole person; self reflection engages the students with the activities to come, and personalising their learning adds ownership to their experience; allows the activities to be tailored to provide optimal challenge for each student	These paper questionnaires can later be interrogated to provide individual and cohort level insights to the students' identity, their approach and to their aspirations for the module
Use of in-class photography - activities are photographed and all images are shared in a private album (students can delete images)	Photographs are used to drive reflective activity and to highlight different elements of good practice to the cohort; students are more able to consider the value of different activities with this visusal source material	Photographs can later be consented for research use, and can be used to supplement observational data
Documentation of research within online 'wikis'	Students can freely collaborate, adding to and deleting each others' work; additionally students can see but not edit the work of other teams - picking up and applying good practice; ongoing feedback is provided as the teachers and co-learners can 'see' the work in progress	The wikis can be interrograted contemporaneously or post-hoc; all work on the wikis is time and date stamped and identified to the individual allowing forensic investigation of the collaborative working process
Learning Post-Assessment - the students re-do the skills assessment; they complete a learning reflection that has the prompt ' write something about your learning experience during this module'	The students reflect on their skill development and consider what they have learned about themselves by completing the activiries in the module; the students write a final statement that allows them to express something of their experience, often integrating their learning on this module with their wider edcuational experience	Provides 'found data' and some insight into the learning experience of the students, in their own words and as expressed as a part of the learning experience itself; this insight can be triangulated with direct observational data of the same student for depth and richness of understanding

Appendix 5

Learning Self-Assessment Part 1 (completed in week one)

The World Today – Self-Assessment: Part 1

Name: CID Number:

1. List any school projects or additional experience relating to global issues, global data or entrepreneurship (e.g. Model UN, summer placements/projects, volunteering etc)

2. Is English your first language? Yes / No

3. Any other comments (use this space to tell the module leader if there is anything that might make it difficult for you to join in with group work and complete the wiki)

4. Mark yourself according to the following scale for the components of the course performance grade – think about what your skill level is now, and what skills you would particularly like to work on during the course.

Learning fitness (balancing your workload, time management, ensuring that you don't work late at night, eating well and preparing for classes):



Learning independently, staying motivated and moving beyond set tasks:



Reasoning and formulating a persuasive argument:



Reflexive working and responding to feedback about my performance:



Asking good questions and accessing and evaluating a variety of sources:



Organising your work and referencing appropriately:



Collaborative working, respecting and understanding the ideas of others:



Group hygiene skills – getting to know everyone in my group, looking after each other, communicating, learning well together:



Thinking outside your discipline – bringing together all your experience, expertise and ideas to understand a complex topic:



Imagineering – working with the implausible, the impossible and the unimaginable (moving beyond technical possibilities to imagine novel futures)



5. Describe two skills in the boxes below. You should focus on improving these skills during the course and your assessment will be weighted towards these skills, as agreed with your co-learning tutor

Learning Self-Assessment Part 2 (completed in final week)

The World Today – Self-Assessment: Part 2

Name: CID Number:

1. Mark yourself according to the following scale for the components of the course performance grade – think about what your skill level is now at the end of the course.



Learning fitness (balancing your workload, time management, ensuring that you don't work late at night, eating well and preparing for classes):





Learning independently, staying motivated and moving beyond set tasks:





Reasoning and formulating a persuasive argument:



Reflexive working and responding to feedback about my performance:



Asking good questions and accessing and evaluating a variety of sources:



Organising your work and referencing appropriately:



Collaborative working, respecting and understanding the ideas of others:



Group hygiene skills – getting to know everyone in my group, looking after each other, communicating, learning well together:



Thinking outside your discipline – bringing together all your experience, expertise and ideas to understand a complex topic:



Imagineering – working with the implausible, the impossible and the unimaginable (moving beyond technical possibilities to imagine novel futures)



Finally please write a short statement about your learning experience on this course.