

'Fieldwork in the Far, Far Away: Exotic Experiences and Geographical Understanding'

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Abstract

With DCSF encouragement for fieldwork, geographers should maximise the use of their locality for practical reasons. However, trips beyond the student's familiar world offer an unparalleled opportunity for the development of geographical understanding, and the further away the better. Moving away from positivist approaches to fieldwork, it is argued that an open-ended experiential approach can have a powerful effect on the development of geographical understanding. An A2 fieldtrip to Morocco is followed. Students' geographical understanding is analysed through their journals, essays and statistical exam data.

The importance of fieldwork for geography?

'Geography without fieldwork would be like science without experiments' (Bland 1996) and the importance of out-of-classroom learning as part of the 21st century school curriculum has been clearly reiterated by the DCSF through the revised National Curriculum (2008) and Manifesto for Outdoor Learning (2006). Schools are given a responsibility to provide children with out-of-classroom learning as a means to enhancing children's motivation, inclusion and well being. And as HMI put it 'fieldwork give opportunities for learning that cannot be replicated in the classroom' (HMI 1992 p1).

Where should we go?

The 'Action Plan for Geography' and 'Learning Outside the Classroom' urge schools to use their local area and school grounds as a starting point. This allows out-of-class learning to become properly embedded in the school curriculum, is low cost and practical with much written to support teachers in this (Job, Day & Smyth 1999). Students' skills can be developed by frequent return visits, and their geographical thinking developed within familiar environment.

However in contrast, although residential trips involve practical and financial costs, they introduce new environments and new social situations. By capturing students for an extended period, residential allow geographical thinking to penetrate deeply into their terms of reference. Without them, how could schools expose students to the world beyond their own?

Crucially, by removing students from their familiar environment and routine or 'comfort zone', residential expose them, making them more susceptible to new experiences. Being removed from the familiar is disorientating. Students have no choice but to be open to new ways of doing things, ranging from questions of basic needs to making sense of unfamiliar surroundings. Assumptions developed over the years are temporarily stripped away. The experience has an emotional effect -

affective learning- which heightens the impact . The degree of geographical learning can be enhanced by the intensity of this 'affective experience'¹ (Kern & Carpenter 1984 & 6). One might assume that this intensity would increase incrementally the further students are removed from their comfort zone and immersed into the unfamiliar especially if this is imbued with a sense of threat or risk. Such circumstances might allow a real exploration of 'geographical imaginations' and a genuine opportunity for some 'awe and wonder' experiences.

Since EasyJet started low cost flights to Marrakesh in 2006, Morocco has come within affordable and practical reach from Britain. An overseas fieldtrip to an Islamic, African, sub-tropical LEDC provided a practical and appropriate opportunity to remove British students a long way from their familiar. In February 2008 we took a group of twelve seventeen year old A2 Geography students from an inner London 6th Form college with an 'open access' admissions policy. The group was socio-economically and ethnically mixed. Their experience of the world beyond inner London varied from some who had living memory of living in other countries to others who had never been outside inner London. The college paid a blanket subsidy for all, and further subsidies according to need. There was therefore no financial limitation on participation.

The fieldtrip involved a seven day visit to Morocco, spending two days in Marakesh and four in the Kasbah de Toubkal field centre, High Atlas mountains. There was an important rhythm to the student experience, and through the week they were moved progressively further from comfort and familiarity:

It began with the sleepless excitement of a 5am start for an 8am flight from Heathrow Airport, landing in the midday heat of Marrakesh airport. The first two days were spent exploring the souk of Marrakesh, gradually feeling more confident to move further from whole group security in small groups with teachers. We then drove into the High Atlas, where they spent two days on a mountain trek visiting remote villages, walking above the snow line, riding mules and sleeping in a mountain lodge.

What will we do when we get there?

How teachers design a fieldtrip will of course affect learning opportunities. Having previously run numerous fieldtrips based on a positivist model of data gathering and hypothesis testing, including one with this group of students the previous year, it was decided to try an interpretivist approach which would involve minimal teacher guidance and would seek opportunities to maximise experiential learning for students.

For all its scientific method, positivist geography fieldwork is often defeated by the very complexity of interacting physical processes and the difficulties of isolating variables for measurement. When applied to human activity these levels of complexity increase further. As a result children are often left

¹ 'Affective learning' addresses a learner's emotions towards learning experiences. A learner's attitudes, interest, attention, awareness, and values are demonstrated by affective behaviours. Bloom, B, Mesia, B., and Krathwohl, D. (1964). *Taxonomy of Educational Objectives*. New York: David McKay)

with data that does not clearly corroborate what their text book suggested they should find, for example the relationship between channel erosion and stream velocity: this shows different patterns during safe low flow periods when fieldwork might take place and dangerous high discharge events when erosion is more likely to take place. Huge effort is spent by students too often without a clear sense of satisfaction in an outcome.

Too often positivist fieldwork follows a hypothesis testing, deductive model where enquiry is theory-driven. The theory therefore needs to be taught in advance. The ethos of enquiry can be lost. By the time the pupils arrive in the field they have varying extents of prior understanding and a set question to answer. Unless the theory has been skilfully elicited from them, they may have had no involvement in generating the questions for research and so limited sense of ownership or motivation in the exercise.

Even more worrying, by applying the scientific microscope to aspects of the environment and objectifying it, we create a cold distance between young people and their environment; this risks desensitising them to it and denies opportunities for any affective reaction. It is paradoxical that activities intended to enhance our understanding of an environment can result in increasing our distance from it. Furthermore, positivist fieldwork involves a 'tunnel vision' approach as we explore the selected variable, consciously trying to block out the interference of other aspects of the environment and in so doing requires us to 'close down' our awareness of these.

In contrast, the interpretivist approach which draws on approaches of deep ecologist earth education (Van Matre 1977), seeks to heighten a sense of connectedness between the field investigator and environment. It is making slow but steady inroads to school geography in response to criticisms of positivist fieldwork. David Job (1999) advocates the use of experiential and sensory activities such as blind-folded tree touching, matching colour charts to vegetation diversity or writing haiku poems. Interpretivists are tapping into an earlier vein of environmental education (Cornell 1984; Van Matre 1977) whose intention is to provide environmental connection or immersion opportunities for pupils with a minimum of guided task or reflection structure. Where tasks are set they are simply vehicles for activity through which experience will be generated; a Trojan horse for the aim of connective experience. It is hoped that this connective experience will lead them to their own questions and inductive enquiry.

With a kindred ethos after years of positivist fieldwork, Trudgill (2003) has become more interested in withdrawing guidance and structure from his students believing this closes down their geographical and investigative imagination. The interpretivist model of fieldwork prioritises student experience and encourages active involvement in interpreting the world through a close personal connection. This involves 'affective' as well as cognitive learning. It has been argued that there is a strong link between student affective response and successful cognitive learning. Not surprisingly, students are cognitively more receptive and retentive when they are enjoying the learning experience (Fink 1977;

Kern and Carpenter 1984 & 6). As adults, our abiding memories of school fieldtrips are testament to this.

Our Methodology: The Data

What effect would this experience have on the students' geographical understanding? We hoped to answer this by gathering the following:

Baseline data was gathered 2-3 months before the trip in the form of timed essays for a natural hazards module, and notes made on their 'pre-conceptions of Morocco', made during a trip planning meeting. Following the trip, another hazards essay was taken in for analysis.

As the teachers, we adopted the role of facilitators and withdrew guidance. During the trip, the principle 'work' required of pupils was to keep a daily journal. These were all copied for later analysis. Every evening of the trip, a video diary room was set up and students were invited to record their thoughts for later analysis. Each evening, a fresh set of questions would be given for discussion. Incidental comments were noted down by teachers on a regular basis. This loose framework for reflection placed no expectations on students to respond in relation to geographical knowledge or understanding. It was explicitly unassessed although the students were repeatedly warned that their journals would be taken in and looked at, and this may of course have influenced their approach to journal entries since they were aware of an impending teacher audience. On the last day they were involved in a role play about a fictitious proposal to flood the valley with a multi purpose dam scheme.

Statistical data was also gathered for the whole class, allowing a contrast between those who did and didn't participate on the trip. This included baseline 'g-scores' representing an averaged value of their GCSE results on entry to the college and their Geography GCSE result, their minimum predicted grade based on these (ALPS), their AS and A module results including resits both before and after the trip and a note of those choosing to pursue Geography at University.

Our Methodology: Data Analysis

The essays, diaries and video diary transcripts were all analysed using coding criteria which were chosen to reflect the development of geographical understanding. They combine criteria for 'geographical knowledge' as defined by the Edexcel A level specification grade descriptors (A) with others chosen to indicate the impact of the trip on students (B). These are, in no particular order of importance:

- *The use of geographical terminology(A)*
- *Application of real examples/use of names/facts/figures(A)*
- *Appreciation of a range of values or perspectives(A)*
- *Student analysis leading to a conclusion(A)*
- *'Eureka' moments; eye opening experiences; sense of awe and wonder(B)*
- *A recognition of one's own geographical understanding; meta-cognition(B)*
- *Sensory impact or stimulation.(B)*

The data was approached at sample level, although some impressionistic comments have been made about the individual students' learning journeys.

Once coded, frequencies were noted for comparative analysis. Phrases within code categories were further analysed to detect common patterns of occurrence across the group. Journal and video diary data were presented as sub sets but generally amalgamated since it was recognised that some students were more competent with oral than written communication and vice versa.

The student journals recorded their personal responses to the trip experience. As expected with any group, there were natural variations in their intellectual ability, sensitivity and ability or willingness to express themselves in writing. And so the experience had allowed for a genuine journey of personalised learning.

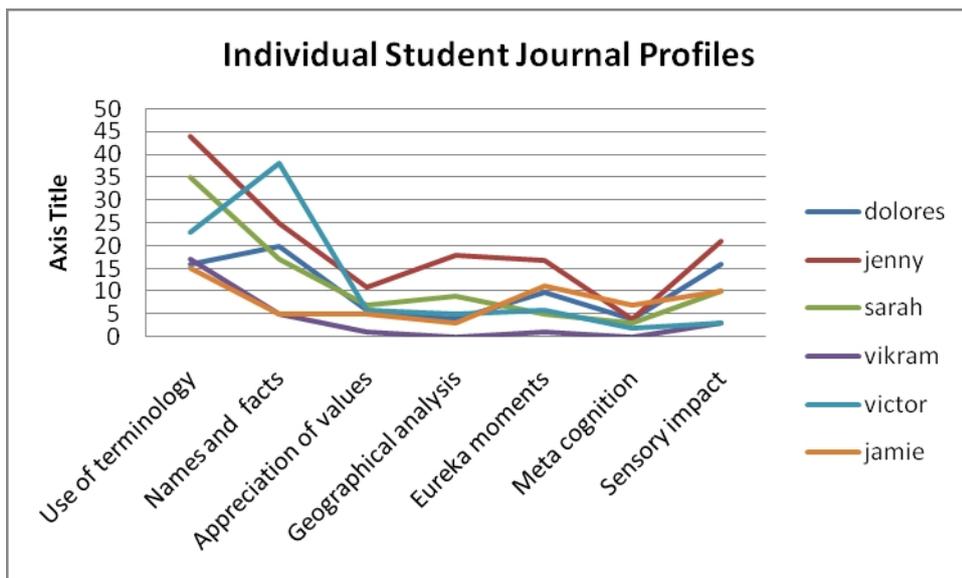
THE RESULTS

Individual Impressions

Having read the journals we tried to identify, in a brief sentence, what the trip seemed to have meant for each student. We were struck by the range which included, in our words:

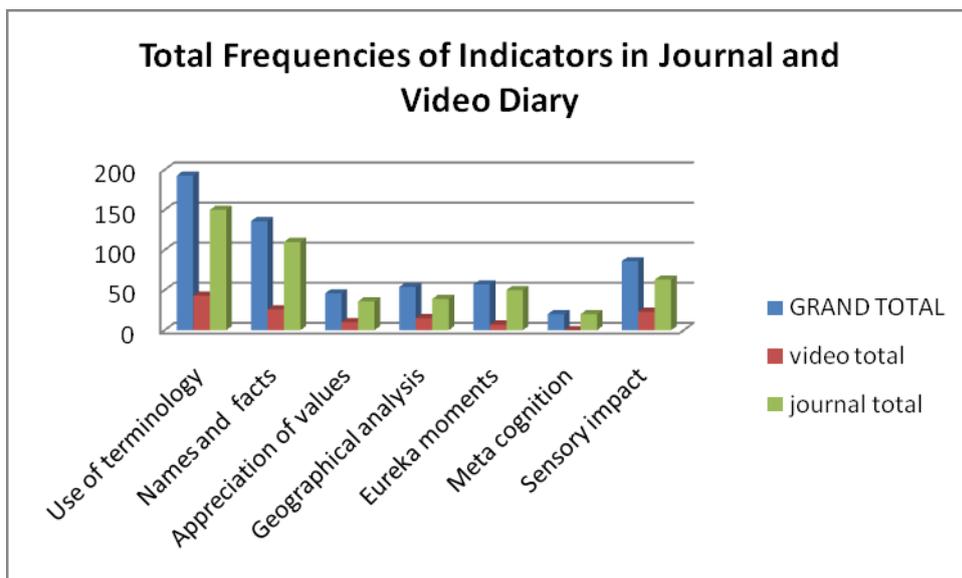
- Learning to respect another way of life and thereby reflecting on one's own
- Reflecting on the way of life in Britain and South Africa (student's country of birth)
- The difference between experiencing Morocco during a previous family visit
- The development of confidence to observe, comment and write about the world
- Developing an analysis of African under-development and pan Africanism
- A sense of genuine connecting with 'living geography'
- An awed experience of the cultural difference.
- Eyes wide open and enjoying every experience
- Appreciation of life in Britain
- A vivid description of the land and cityscapes
- A challenge to all preconceptions of an LEDC
- Surprise and wonder at the tranquillity of the scenery

We then turned to a systematic analysis of the journals and video dairies. Here individual differences also emerge and can be clearly illustrated by the graph of their individual profiles of journals.



Group results of Journals and Video Diary

However, from here on our analysis treated the students as a sample group rather than as individuals. When the students' coded criteria are grouped together as from a single group sample, a clearer pattern can be seen.



Those criteria which occur most frequently in the data, *The use of geographical terminology(A) and Application of real examples/use of names/facts/figures(A)* drawn from the Edexcel exam specification and are those most easy to attribute to geographical understanding. However, we realised in the course of analysing the data that these criteria reflected a previously developed lexicon that the students had brought with them on the trip rather than reflecting development *during* the trip. While their frequency may indicate their attempt to think and talk geographically, and to apply their knowledge to their experience, the frequencies do not in their own right indicate shifts in geographical understanding.

In contrast, we thought that the criteria which best reflect the ongoing impact of the trip and affective learning were 'sensory', 'eureka moments' which represent experiential and eye opening moments although neither of these were Edexcel criteria for geographical understanding. Another strong indicator, we thought, was 'appreciation of other values'. This suggests a deeper reflectivity on their own world view as a result of gaining greater understanding of that of others, and is an Edexcel indicator.

Journal & Video Diary Criteria in Depth

'Sensory impact or stimulation' were strikingly prevalent making this the most frequent if *The use of geographical terminology (A)* and *Application of real examples/use of names/facts/figures (A)* are disregarded. Comments were broadly divided into those which described an aspect of the environment for example, references to sights, smells, food, cold; secondly, a group which described a sense of psychic or emotional discomfort for example a sense of chaos, fear, guilt, feeling lost; and thirdly, those which described positive or euphoric sensations for example, excitement, heaven, serenity, fun. Taking journals and video diary together, *environmental descriptors* were most common followed by *discomfort* and finally *euphoria*. It is interesting to note that students were more likely to express sensory indicators in their journals than in discussion, perhaps suggesting that the privacy of the journal is a more effective means of encouraging and recording personal reflection.

'Eureka moments' were the next most common comments in journals and as with the *sensory* comments they were very rare in the diary room discussions. There was a striking range of frequencies between respondents whether this suggests a variation in their effective learning or their ability to recognise or record it. During the analysis it also became evident that it was often difficult to differentiate 'eureka' from 'sensory' comments and so in these cases they were double counted.

The geographical phenomena behind these 'Eureka moments' were broadly grouped around a number of themes which seemed to have affected the students (examples are shown as footnotes): An appreciation of the common humanity and appreciation of the hard work of people in ledcs in the struggle against adversity², A realisation of the ingenuity of people and their technology in Morocco³, Awe and wonder of the environment⁴, An appreciation of value in the way other people may do things differently⁵, An appreciation of what they take for granted in the UK⁶. Even where comparison to the UK was not explicit, a considerable amount of the eye-opening involved an element of comparison between what they were experiencing and their familiar lives.

² People want to get on with you, Young people working with hammers, Leather production, Cook and eat with ever present smell, Manual labour for women, 15 people to a house

³ Management of the area, Sophistication of irrigation system, People work around environmental barriers, Poor air quality and working conditions, Value placed on water, Terraces, How they came out with words (eg Eastenders)
I walked all the way without riding a mule

⁴ Sights of the market, Drive from the medina, The Kasbah, The hike. Changes in scenery..atmosphere
Sitting on the roof, Walking and learning about rivers, Covered in snow, Sun tan lotion while having snowball fight
Scenery, High road in Imlil...dependence on tourism, Mountain terrain, Amazing views of snow capped mountains while riding a mule

The way in which students expressed their revelation gave an interesting window into the nature of their realisation and so their choice of words or 'qualifying terms' were also grouped into categories which were as follows (coded phrases shown as footnotes): 'Beyond belief'⁷, 'Awe'⁸, 'Inspiration'⁹, 'Increased reflection'¹⁰, 'Personal achievement or enjoyment'¹¹. The high frequency of 'increased reflection' indicates high level of conscious learning has been taking place and one can only wonder if this could have been replicated during fieldwork closer to home. There are also a considerable amount of comments indicating a 'sense of personal achievement or enjoyment' which can be related to the experiential nature of the fieldtrip and the aforementioned power of affective learning.

The prevalence of *sensory* and *eureka* occurrences underline the significance of the affective learning dimension to the fieldtrip experience. But how do these translate into geographical understanding at an intellectualised and analytical level? The criteria which best reflect the achievement of this are 'Appreciation of a range of values or perspectives' and 'Student analysis leading to a conclusion', both Edexcel criteria.

It is not surprising that British teenagers visiting a North African LEDC would be struck by cultural differences. It is interesting therefore to find them beginning to empathise with the cultural or socio-economic positions from which these differences emerge. We grouped their comments on 'Appreciation of a range of values or perspectives' into a series of categories, which in order of frequency (shown in brackets) were: 'behaviour in relation to economic necessity'(37), 'domestic culture & entertainment'(33), 'different gender roles'(7) and 'state regulation'(3). Comments grouped around 'Student analysis leading to a conclusion' generated some similar sub categories which in order of frequency were: The 'logic of traditional culture and economy' (22), 'Economic development' (16), 'Economic necessity' (9), 'State regulation' (7), 'The role of tourism' (7), 'Social structure & gender' (7), 'The physical environment' (6), 'People –environment relationships' (2). 'Hazards' (1). Taking the two criteria together, those topics featuring the most expressed areas of geographical discussion then were: 'Social Structure and gender roles', 'behaviour in relation to economic

⁵ The tea, Behaviour of men, entertainment of the mulateers, playing drums and singing,

⁶ The opportunities we have in medcs, My freedom,Life in ledcs... and UK., Disregard for hygiene

⁷ Unbelievable, Completely different, So different, Completely different to anything I've experienced

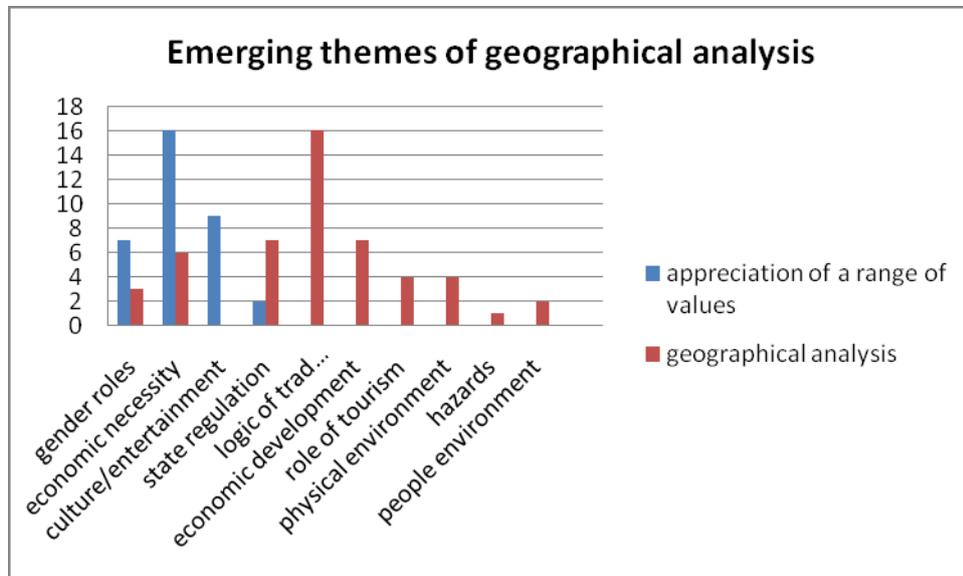
⁸ No words can do it justice, Amazing, Fascinating, I'm completely in awe
A magic moment, What sticks out in my mind

⁹ Inspiring

¹⁰ Makes you think, Proved me wrong, Challenges the way I perceive, I didn't realise how, I could really see, Made me realise, I've seen for myself, My change in perception, What we've learnt in college isn't always right, Taught me to be more appreciative, To think people live, Made me feel quite privileged, Made me realise how difficult, Appreciate the life we have, Before I came I thought

¹¹ Great sense of achievement, I did enjoy, I was very glad, It was touching,
The experience has allowed me, Very humbling, I discovered, Decide for myself, Extremely impressionable, A real adventure,
The highlight of the **holiday**

necessity' and issues of 'state regulation'. From the display of this data on the graph below, the dominance of thinking about 'economic necessity' and the 'logic of traditional societies' is clear. It is unlikely that so much thinking about these themes could have been generated without participation on this trip.



As teachers have become more interested over recent years in 'thinking skills', we have come to realise the importance of the learner's reflection on the very processes of thinking that they have engaged in as a means to refining and replicating these in the future. This awareness of one's own thinking process is known as meta-cognition, and we thought it important to analyse the journals for 'recognition of their own geographical understanding; meta-cognition'. It is particularly challenging for teenagers since it requires sufficient maturity to objectify oneself in addition to being analytical. It therefore came as no surprise that this was the lowest frequency criteria in journals and diary room.

As with Eureka moments, these were analysed to identify a) the words used to qualify the meta-cognition for example 'I now see...' and b) the geographical focus through which the student reached this moment.

SUMMARY OF METACOGNITIVE QUALIFYING PHRASES

it gave me the opportunity to **see...**(2)

I've seen for myself...

I...is more of an **experience...**(5)

bring the case study to life....will never be forgotten...

Infinitely more interesting than sitting in a class room...

...has taught me more than a curriculum based fieldtrip would...

This fieldtrip has taught me more...

Allowed me to put my own **questions**...(2)
This trip was so much more...training me to think for myself...

Walking through and **learning**...inspiring (3)
I learnt a lot from
My knowledge...has increased

because it is more interesting place an **differs so much from our norm.**

...become apparent...**raised conflicts** within myself...

What has been learnt will undoubtedly change their **perceptions**...(3)
Made me think differently about how I see....
After coming here i now realise....

...many seemed to **appreciate** the differences...(4)
How to appreciate...
I gained a true appreciation...
It really helped me appreciate...

My geographical **understanding** has changed for the better...brought the case study to life
..a greater understanding of the world around them...
I have gained an understanding...

The biggest thing i've got out of this trip....

The metacognitive qualifying words have been grouped and ordered according to a Bloomesque taxonomy of learning, beginning with observation and experience and moving towards understanding and evaluation. Again, the most commonly associated phrases relate to experience and appreciation through exposure to difference.

SUMMARY OF TOPIC FOCUS WORDS

Rivers Rural and mountain environments Harshness of mountain environment Links between hazards, rivers, Morocco	PHYSICAL ENVIRONMENT (4)
Influence & pressure of tourism	HUMAN GEOGRAPHY (3)

<p>The geography of the area Geography has many levels</p> <p>Experiencing Morocco Orangey pink Marrakesh New culture Enveloped in such a different way of life Differences between Western and Islamic culture Moving from Marakesh to Imlil, the transition Report to the 'mayor' Lifetime skills and experiences</p> <p>LEDC compared to UK Gap between LEDC and MEDC Perceptions of LEDCs (2) Life in LEDCs LEDCs, poor countries and people who live in them</p> <p>How small is Exmoor Appreciating what we have in UK. Our necessities, their luxuries</p>	<p>EXPERIENTIAL (9)</p> <p>DEVELOPMENT GAP (6)</p> <p>REFLECTION ON HOME (3)</p>
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Although there might be many other ways of grouping these topics, our cursory analysis reveals a high frequency of what could be broadly called 'experiential' factors mentioned in a meta cognitive context. These are topics which suggest the meta-cognitive moment resulted from a direct physical or cultural experience. This is closely followed by a grouping of comments around a deepening understanding of the 'development gap'. It is particularly interesting to see comments which reflect back on life at home which can only be realised with the imposed distance of the trip.

Positivism vs Interpretivism

To this point the journal entries discussed were generated without guidance and so represent the spontaneous reaction of students to their experiences. However on the last evening of the trip, students were asked to evaluate their experience of this trip in contrast to the previous year's fieldtrip to Exmoor on which they had conducted a sequence of traditional, positivist fieldwork investigations.

Nearly all comments were favourable to the semi structured experiential approach. Some liked the absence of structured 'work' because they had negative associations with the traditional concept of 'work' or described themselves as 'lazy'. One notably describes the trip as a 'holiday' implicitly associating the experience with leisure and being unconscious of the learning taking place . For

others it was intellectually stimulating to be left to ask their own questions or use their own frameworks to explore the fieldwork opportunity. The exoticism of the location has also raised the impact of the trip and is commented on many times.

The students' comparison of the two trips speak for themselves and we have selected some striking phrases:

- *"More of a journey of experiences"*
- *"I also discovered a lot more about humanity here, and the human ability to survive."*
- *"Being enveloped in such a different way of life has taught me more*
- *Allowed me to find my own questions"*
- *"Think about it in my own terms",*
- *"Differs so much from our norm"*
- *"More an experience and requires less class work because it is so spectacular."*
- *"The trip has widened rather than changed my geographical understanding"*
- *"It hasn't felt like a fieldtrip because of the lack of written work, but I feel like I have learnt more"*
- *"Help me to remember especially because the trip was enjoyable"*
- *"The style of teaching was a lot better (than Somerset). Because even though writing our diaries felt like a chore, it cemented the knowledge I had learnt during the day."*
- *"It was just for us to absorb the culture and have a better understanding of LEDC. "*
- *"Here we are allowed to take the experience in,"*
- *"Learnt far more than last time, difficult intense in past. Wider range of skills used on this trip"*
- *"We are learning on our own therefore have more time to see and think about the geography of the areas of the things we are learning"*
- *'We used a wider range of skills on this trip'*
- *'More mature & more adult!'*
- *More time to see and think about the geography of the areas of the things we are learning*
- *It was better for us to absorb the culture and have a better understanding of what an LEDC is like*
- *'We were put in a whole other country in places which are full of local people and local customs.'*

Analysis of Exam Results

Four months after the fieldtrip, the students sat their exams. They all sat three modules for their A2 and a number of them also re-sat AS modules originally taken the previous summer. We have compared their exam performance in these modules to that achieved previously and to the performance of those students who did not come on the trip.

Although the class were overall of high ability as reflected by their g scores and geography GCSE results, a value added analysis by ALPS shows that their group final grades achieved a 10% increase

in value added compared to the previous year's cohort. The twelve students who came to Morocco did significantly better in their final A level grades than the five students who stayed behind. Their mean and median Uniform Mark was higher (396 and 322 vs 377 and 309 respectively), in spite of the fact that the travellers had a wider range of final results (range of 255 vs 200) reflecting a wider ability range.

However a more interesting measure of the traveller's advantage is the extent to which they were able to improve their module marks through resits following the trip. Results for the four module re-sits involving travellers and non travellers show that travellers were able to increase their marks by, on average 15.5 marks, compared to non travellers' 12.7. Even including resit grades for module 6471 which travellers could not sit but non-travellers did, their average re-sit gain is still only 12.8.

When looked at in terms of percentage change, traveller re-sits yielded percentage improvements of 33%, 12%, 30% and 60% for four modules. These increases were 5-6% greater than percentage improvements for the non-travellers.

It is also worth noting that non-traveller re-sit percentages may be unduly inflated by their smaller sample size (9) and within this there were some spectacular individual gains; compared to a larger sample of traveller re-sits (23). Both groups contained a rogue result, with the student doing worse on the re-sit and thereby skewing the overall group results. But if these rogue results are eliminated, the traveller group's results for module 6476 increase improvements from 60% to 78%.

Analysis of Essays

In addition to re-sit grades, further evidence of improvements in the traveller's geographical thinking can be found by quantitative analysis of their 'hazards' essays, written under comparable conditions before and after the trip. In contrast to fieldtrip journal data, *sensory*, *eureka* and *metacognitive* measures were non-existent while *appreciation of values* were very low. However *The use of geographical terminology*, *Application of real examples/use of names/facts/figures and analysis leading to a conclusion* were all very high. On reflection not surprising given the nature of the written material. However what was very striking was the phenomenal level of improvement with essays written under comparable conditions following the fieldtrip. Expressed as percentage changes, student's usage of *terminology* increased between 16% and 566%, their application of *names/examples* between 33% and 2,100% and their *analysis leading to a conclusion* increased up to 600%.

This higher level of attainment cannot be ascribed to higher ability of the travelling group. The average 'g scores' of the travellers was only 0.44 higher than that of the others, less than half a gcse grade difference across the whole sample. Although the g score range of the traveller group was wider (4.12 to 7.33 vs 4.42 to 6.5) reflecting the more mixed ability, the difference in their medians is just 0.5 higher.

Conclusions and Evaluation

The message of this research goes beyond a reiteration of the importance of fieldwork. It illustrates how an unstructured interpretivist approach can provide very effective geographical learning which, in the words of the students themselves, taught them more than highly structured traditional positivist fieldwork. Although teachers are constantly tempted to teach what needs to be learnt for the exam, too much guidance can be blinkering and close down students' geographical antennae. Our open ended approach coupled with daily journal reflection was successful in switching these on. By the last day, they were increasingly confident and emanated a sense of achievement. They had all developed a tangible empathy for the Moroccan people they had been meeting, in particular our mountain guide and muleteers. They showed interest and concern for the future of the village community and genuine interest for issues of sustainability. By removing students as far as practically possible from the familiarity of their comfort zone we maximise the learning impact. It illustrates the power of the exotic.

In hindsight we do have some ethical concerns about our approach. For while our back-seat approach was educationally informed, we wonder whether as teachers we should have assumed a greater level of involvement and guidance and been more proactive to challenge misconceptions. As practitioners we found ourselves torn at times between positivist and interpretivist models, whether to provide greater teacher guidance or facilitate student experience. But we struggled to maintain the latter.

Do the exam results prove our case? It is possible that the travellers were a more motivated group as a result of the fieldtrip experience, and indeed before; it may have been a higher degree of original motivation that brought them to sign up for the trip originally. This motivation, whether original or resulting from the trip may have led them to work harder for re-sits and final revision. It is of course arguable that improvements in grades are simply the result of general maturation or the increased effort of students as exams draw nearer.

Past efforts to prove the effectiveness of fieldwork have not convincingly succeeded as reviews have shown (Fuller 2006; Kent 1997). It is an impossible task to categorically prove that the fieldtrip experience alone is responsible for improved results since we cannot experimentally isolate out all other variables in students' lives over such an extended period of time. It would be practically and ethically impossible. We would find ourselves subject of the same criticisms which we have made of traditional positivist geography fieldwork. For these reasons it may never be possible to conclusively prove the effectiveness of fieldwork. However, the data analysis of this project convince us that the students' geographical understanding has been profoundly affected by their experience. Our belief in the importance of fieldtrip experiences and the unparalleled power of the exotic has been vindicated.

11.3.09

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