

A study exploring approaches for enhancing deeper learning on international field trips in Human Geography and Planning.

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Abstract:

The field trip is a well-established component of Human Geography and Planning curriculum in Higher education (Rynne, 1998), and seen by many to be both an essential and enjoyable learning method (Kent, 1997; Fuller et al., 2003). The role that these visits can play in skills development and the building of group identity, team spirit and good staff–student relationships should also be considered (Clark, 1996), however assumptions of the overall effectiveness of field trips remain. “Deeper learning” refers to the combination of a deeper understanding of core academic content, the ability to apply that understanding to novel problems and situations. This article explores the approaches to enhancing deeper learning on residential field trips through the design of preparatory resources and activities in relation to an international field trip embedded within a Level 7 module. A critical review of pedagogic strategies specifically intended to foster student attainment and engagement on field trips was undertaken, focussing on pedagogic interventions which could be applied to a residential field trip for home and international students studying Sustainable Planning. Through the literature review several key themes were identified which highlight the changing approaches have occurred in recent years with a distinct shift from passive to active learning techniques on field trips and the importance of identifying atypical considerations such as emotional geographies, the ‘place’ in which learning takes place and importance of preparation to ensure effective learning can take place.

Aim and principle:

The aim of this study is to explore the effectiveness and value of field trips in more detail, to question and examine to what extent they help to engender a deeper learning experience. The study comprises a Literature Review examining theoretical approaches to experiential and deeper learning and a review of specific strategies used at various stages of the experiential learning development process. It also considers preparatory methods in the organisation and design of residential field trips and identifies areas of positive contribution and disruption. Findings from this study will offer useful insights to support the approach and design of future residential field trips for an existing residential field trip for postgraduate Planning students and in the development of a new international field trip which will be open to level 5 and level 7 students within Human Geography and Transport Planning, respectively.

Introduction

Bland (1996, p. 165) once stated that “Geography without fieldwork is like science without experiments” suggesting that the perception of geography outside the immediate subject area is that field trips and fieldwork are inextricably connected. Within Higher Education establishments in the UK fieldwork and residential-field trips comprise a key part of national subject ‘benchmark statements’ for Geography and Planning (QAA, 2014; RTPI, 2014; RTPI, 2015).

An international field trip can be best defined as a delivery mechanism providing students with experiential learning opportunities to enhance their learning in the classroom. Edwards (2009) suggested this approach is therefore an ‘optimal’ model for positive learning outcomes, building on existing knowledge through observation, experimental research or place-based problem-based learning (see: Lonergan & Andreson, 1988; Fuller et al., 2006; Houser et al., 2011). Most of all students have the opportunity to experience ‘real world’ issues (Stoddart & Adams, 2004) and when conducted in an international setting it benefits students’ resilience to global market forces, cultural awareness and transferrable skills.

Gerber stated in 2000 (p. 197) that “fieldwork as one of life’s experiences should not be underestimated”. The importance for students’ skills acquisition has grown dramatically in Higher Education in recent years, with the increasing marketisation of higher education and shifting of focus on transferrable and graduate attributes (QAA, 2014). It’s therefore important to consider the role field trips might play in the acquisition and development of these skills. In the case of the author, the introduction of reflective journals in a level 7 field trip was specifically included to help link skills enhancement with benchmarking standards and expectations of RTPI (2014).

The Royal Town Planning Institute’s guidance specifically requires that the accredited courses should include a ‘comparison with other countries e.g., the UK and EU spatial policy, planning and environmental policy and legislation’ as part of its core knowledge components (RTPI, 2014). There is a distinct value for students that take part in residential visits and use experiential-learning techniques to understand and reflect on different planning systems, organisations and processes. This example of cross-national learning technique has been explored by several researchers from both the student (Datta, 2014) and lecturer (Pence & Macgillivray, 2008) perspectives to challenge inherent assumptions of their subject area and practices.

The field trip has featured as a staple component of Geography and planning education in Higher Education for over 100 years and there have been numerous studies demonstrating the effectiveness, importance and value of the field trip (Rynne, 1998; Fuller et al., 2006; Butler, 2008; Datta, 2014) but this is largely skewed to physical geography and

environmental sciences education. Only recently have we seen a widening of research exploring the benefits of field trip to the Human Geography and planning fields despite there being almost universal acceptance (and assumption) that field trips should be integral to any University course curriculum (Yigitcanlar, 2013). Field trips come in various formats and at various levels of instruction. They often act as an add on to existing lecture-focused modules or, in the case of this research project, can be an outright module offering a thorough and holistic interface between learning and teaching (Kent, Gilbertson, & Hunt, 1997)

Approaches to learning

Biggs (1987) identified three approaches to learning that consisted of a motivational and a strategic component that defined each approach (Table 1). These are framed as a surface, deep and achieving approach (later conceptualised as a strategic approach by Entwistle and Peterson (2004)). However, despite their conceptual accessibility, the notions of the three approaches to learning raises questions as to the causes of a learner adopting a particular approach, particularly as there is a limited number of studies that characterise learner approaches for particular disciplines within higher education (Healey & Jenkins, 2000).

Table 1: Approaches to learning, adapted from Biggs (1987) and Entwistle & Peterson (2004)

Approach	Motive	Strategy
<i>Surface</i>	Main aim is to gain a qualification with pass-only aspirations. Desire to avoid failure.	Learning targeted to bare essentials and reproduction of knowledge through rote learning
<i>Deep</i>	A deep motive in studying to understanding ideas with personal interest in subject	Meaningful learning strategy through wide reading, inter-relating knowledge with previous knowledge and understanding
<i>Achieving/ Strategic</i>	Based on competition and personal goals, often to obtain highest grade regardless of interest in subject	Strong organisation and time-management through adherence to guidance by instructors and alertness to assessment requirements

Students with a surface approach are motivated to cope with the course requirements and avoid failure with a strategy focussed on the minimum syllabus requirements and selective memorisation of information without necessarily seeking meaning or value. Students with an achieving or strategic approach are characterised by an applied and organised approach to study that is motivated by an intention to do well in the course and achieve personal

goals. In contrast to ‘surface level’, students with a deep approach are motivated by a personal and intrinsic interest in their studies and this is characterised by engagement with learning activities and a learning strategy that seeks meaning and understanding. This usually involves a student having a full understanding and awareness of the core academic content and the ability to apply that understanding to novel problems and situations. Deeper learning (knowledge and understanding) will be facilitated where fieldwork enhances student interest, enjoyment and recognition of importance (Kern & Carpenter, 1984, 1986).

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Fieldwork and the three domains of learning:

Whether deep or surface learning, it is important to consider these within the wider domains of learning. Table 2 outlines the various skills obtained within the three primary ‘domains’ which were developed by various pedagogic researchers in the 50s, 60s and 70s and all originating from Bloom’s taxonomy (1954). The cognitive domain has since been through several major revisions with Bloom’s taxonomy revisited (Anderson & Krathwohl, 2001).

Table 2: *Three principle learning domains. Adapted from the following: Cognitive (Bloom, 1954) Psychomotor (Dave, 1970) and Affective (Kratwohl et al,1964).*

Cognitive (Knowledge)	Psychomotor (Physical skills)	Affective (Attitude & emotion)
Evaluate	Naturalise	Characterise
Synthesis	Articulate	Organise
Analyse	Be precise	Value
Apply	Manipulate	Respond
Recall	Imitate	Receive

It’s important to note that the learning process takes place within all three domains and therefore requires a consideration of whether the teaching, learning or assessment activities are aligned with learning outcomes of the activity or field trip as a whole. Considerable weight is often put on the cognitive activities as they involve the processing of information and deriving meaning from this while learning activities within the affective domain consider the attitudes, values and emotions and is seldom thought of as a learning outcome (see: Isen, 2003; Boyle et al., 2007).

As outlined within Figure 1, there is a clear distinction between all three domains, and it is important to note that all three spheres cannot be separated and depending on the teaching activity they can often complement each-other (Boyle et al., 2007). For example, where specific learning activities like lectures are likely to focus on cognitive development, more practical activities would focus more on cognitive and psychomotor skills.

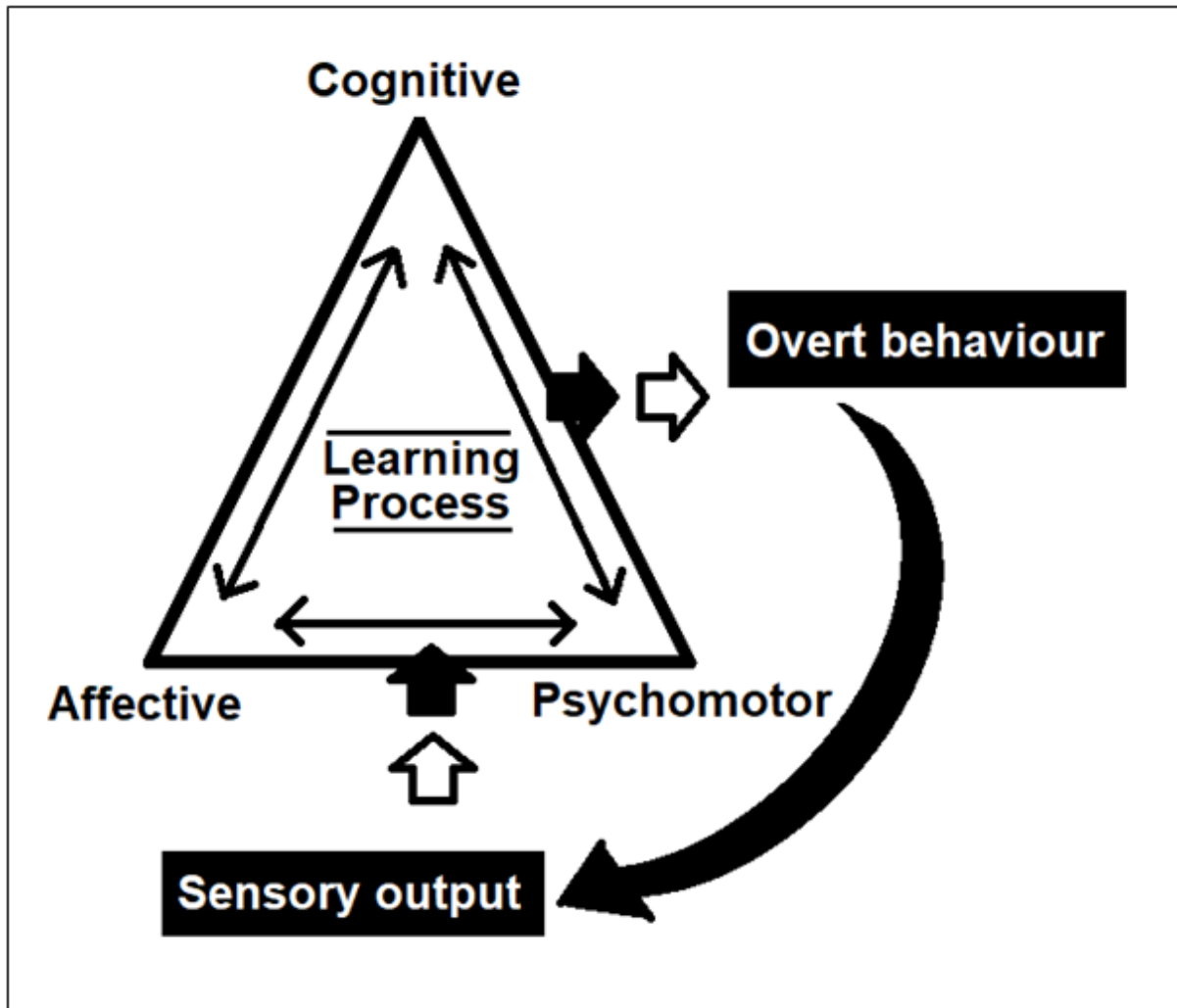


Figure 1: Three learning domains and the learning process (adapted from Eiss & Harbeck, 1969).

There is increasing evidence which suggests that domains of cognition and affect are much more connected than once thought, and that both positive and negative affective aspects such as willingness, motivation, social barriers and insecurity help to strengthen the cognitive processes that take place (see Gray, 2004; Storbeck & Clore, 2007; Pessoa, 2008). The notion of 'novelty space', first outlined by Orion and Hofstein (1994), suggests that students pass through various learning stages which help reduce their anxieties and concerns (i.e. novelty space) which acts as a negative and distracting factor within the geographical, psychological and cognitive domains. The relationship between novelty space and learning is therefore one that can't be ignored and reducing students' uncertainty and

unfamiliarity is of utmost importance to ensure they are able to maximise learning while on the field trip.

Taking students outside of the classroom can also help with students' motivation and willingness to learn. A higher level of sensory stimulation helps for a more memorable learning experience which positively impacts on recollection and the application of concepts. Chawla's (1994) study into how students perceive and experience the field in which they learn highlights the positive experience for both participants (students) and planners (staff) in developing meaningful and memorable experiences and the role of engaging multiple senses in the affective dimension.

Role of place in field trips:

Similar to the influence that a classroom might have on the effectiveness and value of learning within a typical lecture environment, the learning environment of a field trip is of significance as it is the 'place' in which the learning takes place. Cresswell (2004) stated that place is not just a thing in the world but a way of understanding the world, it is a way of understanding the way in which people and their environment interact with each other. In the case of field trips, the setting provides a unique interactive and social learning environment and these experiences help stimulate strong emotions linked to that specific environment. One of the distinct features of learning within the field is that students receive direct experience with the concrete phenomena and materials (Orion, 1993).

This 'situated learning' that takes place also helps a deeper understanding of issues and ideas than if presented 'artificially' within a classroom setting (Goodwin, 1994). The understanding that places themselves generate emotional reactions is important when considering how students may prepare for and reflect on their experiences within the field. It is also important to consider the role that 'psychogeography' can play in shaping students' experiences and learning on field trips. Psychogeography explores the emotional impact of places and the way in which this may influence learning that takes place (Haigh, 2008), for example for many, the international field trip may be the first significant time abroad which places students in an unfamiliar situation with varying sensory and emotional disruption (Simm & Marvell, 2015).

Preparation and design:

Reflecting on the above and considering the design and planning of field trips there are evident opportunities to build-in strategies and activities to help ensure effective learning can take place. Some of these considerations are explored herewith:

A structured knowledge base is one way in which deep learning can take place (Biggs, 1989). Therefore, careful consideration should be taken when designing teaching and learning activities within a field trip. The importance of students' preparation cannot be understated when designing field trips. For one, it can significantly help to reduce the novelty space which is usually experienced at the beginning of field trips. It is also important to consider the role and importance of preparation for staff in order to ensure suitability and effective deliverability of field trips (Rebar, 2012). Indeed, there are a limited number of educational programs preparing staff for field trips, and a limited field trip pedagogy to support preparation. Opportunities may lie in cross curricular learning and considering ways of drawing out best practice in field trip design by decoding the disciplines between subjects e.g. Environmental Sciences, Tourism and History (see: Middendoft & Pace, 2004; King, 2009).

In the case of the international field trip a series of briefing sessions could be arranged which can help students prepare academically and emotionally for various aspects of the trip. Activities like pre-activity assignments, itinerary briefings, slide shows and virtual previews of environments (e.g. via street view) can help to reduce the novelty space and thus provide positive effects on the cohorts learning outcomes.

It is also important to consider the role that unplanned activities can play in influencing students experience and learning on field trips. Non-formal learning through activities like evening discussions and reflective discussion. Observation from studies showing that fieldwork provides opportunity for learning to be reinforced during 'evening conversation' and in less formal lecturer–student and student–student interactions

Proposal – matrix for considering/critiquing deeper learning opportunities on field trips:

Below is a list of typical activities which take place on field trips within the subject area:

1. **Activity A - Initial visit to site location** - On a previous field trip there was an opportunity for staff and students to visit a study site the day before the main appraisal activity took place, helping with students' familiarisation and allowing those particularly keen to undertake further preparatory research.
2. **Activity B - Series of perspective/sensory experiences.** Students were presented with a series of urban data collection techniques which record senses subconsciously experienced in the urban landscape – this could be undertaken individually and independently following the field trip and applied elsewhere.
3. **Activity C – Informal discussions** during evening conversations following day's activities.
4. **Activity D – Group preparatory exercise identifying and evaluating overall aims and objectives**

5. **Activity E - Co-constructed session.** A current placement student was invited to speak to existing students as part of a one-day field trip, the session was co-designed by the student and staff member ensuring content and learning was aligned to overall module learning outcomes (see Cox-Petersen & Pfaffinger, 1998)

6. **Activity F – Reflective peer group learning exercise** – previous students were asked to reflect on their experience of an activity and current students were subsequently asked to discuss this with their peers (see Outhred & Chester, 2010).

As an initial task the above activities have been ‘mapped’ onto an overlaid model of Krathwohl’s taxonomy model and Kohl’s experience learning cycle.

Table 3: Adapted model based on Krathwohl’s taxonomy model (1964), Kohl’s experience learning cycle (1984)

		Field trip stage (adapted from Kohl 1984)			
		Experimentation	Experience	Reflection	Conceptualisation
		1. Pre-field trip	2. During Lecturer-led	3. During Student/Peer-led	4. Independent exploration
Krathwohl’s taxonomy (1964).	A. Receiving	B	A	C	
	B. Responding				B
	C. Valuing	D		C, E	
	D. Organisation	F, D		F	
	E. Characterisation		E		

The above model, although rudimentary, assists in the placement of specific teaching and learning activities at the various stages of learning that takes place over an afternoon, day or week. It maps out potential teaching and learning activities for students and allows for a systematic review and reflection of field trips:

- It will be assessed alongside learning outcomes - to ensure appropriate alignment),
- Considered alongside student assessment and feedback – to measure the level of student’s knowledge and understanding
- Compared with activity-based feedback and satisfaction surveys - to ascertain the level of student enjoyment.

Wider implications:

The findings of this study clearly show that field trips provide an effective and useful learning experience for students and that many of the impacts are not yet fully understood

and realised. There are many opportunities for field trip learning to positively impact the affective domain; improving students' graduate attributes notably their abilities with problem-solving activities, value of team-working and societal/global awareness. The 'situated learning' that takes place helps apply existing acquired knowledge and supports students' feelings of being part of a wider community of learners which further impacts confidence in academic abilities and overall cohesion. However, when considering the above within the context of the affective learning domain, it is clear to see inputs and outputs but can often be tricky to establish exactly where the various learning processes take place.

Several significant questions remain when considering the overall aim of this study which provide some useful context for further investigation and implications:

- How can and should the impacts of specific pedagogic teaching approaches be measured within the context of a field trip?
- How can educators address assumptions of the effectiveness of fieldwork activities providing deeper learning opportunities, particularly in considering (and excluding) the 'embodied' feel-good value field trips provide - i.e. it is undisputedly enjoyable but is it completely effective?
- What role does 'place' itself play in the shaping of students' acquisition of knowledge and the level of acquisition.
- How can learning best practice be shared and communicated within other subject areas and at various levels of instruction?

It is not uncommon for students to experience feelings of anxiety, loneliness and confusion when on international field trips which can also impact on the learning that takes place. There were very few studies exploring this aspect of 'cultural shock', representing an area in need of significant attention, and perhaps a consideration of the five stages of culture shock within the context of international field trips and exploration of strategies to minimise negative impacts.

Conclusion:

Indeed, this study is only intended to be cursory in its application and outcomes but it does present considerable scope for further investigation of the learning and teaching practices best suited to engendering a deeper understanding in addition to further insights into the changes in approaches to learning over time and their causes.

Multiple studies have found that fieldwork alone provide students with a more enriched learning experience than traditional, classroom-based activities. Combining this with a variety of learning activities at all stages of the field trip (from planning to reviewing) offers students shallow, deep and strategic learning opportunities and ensures this pedagogic approach takes place in structured, multi-stranded and enriching educational environments.

Significantly, students also learn how to apply the information and observations they obtain on field trips into their own knowledge and understandings and in doing-so the fieldwork profoundly changes the students themselves.

It is evident that a fuller understanding and appreciation for how this transformation takes place is immensely valuable to those working within these pedagogies and continues to inspire and motivate me to investigate further as I continue to develop my role as an educator within higher education.

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