Yawning sixth formers: An action research project examining how we can move beyond passive learning in sixth form teaching of case studies in urban management

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Abstract

This research examines how active learning can be incorporated into A-level geography teaching. It was identified that the teaching of case studies often relied on passive teaching strategies. An action research approach was taken using an AS-level geography class learning about urban management theory and case studies. Five lessons were taught using various active learning activities. Data was then collected through lesson observations, students' work and focus groups. This allowed ideas to refined, developed and examined. Many of the active learning activities conducted highlighted the individual nature of student learning. Some students were seen to be more suited to it than other. A key element identified in active learning and post 16 education is the shift in responsibility towards the learner. Again differences were seen with some pupils embracing this while others did not. Finally the role of passive learning is considered in this research. Evidence existed that learning still took place and was at times necessary to construct knowledge and understanding. This research has implications for practice at not only post-16 education but also the wider geography teaching. Geography teachers should consider what balance is needed between active and passive learning.

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Introduction

> "...students are active participants and investigators, not just the passive recipients of knowledge." (GA, 2009: 33)

The end of compulsory education at sixteen leads young people to make decisions over their future in education. At a superficial level it may seem as simple as a decision to stay in education or not. However a consideration of subject and qualification route is required. For me this was an easy choice due to my love of geography. I had been inspired by excellent teaching that propelled me forwards and maintained my interest. However sixth form is often characterised by passive learning. Turton (1997) comments that A-level traditionally covers large volumes of syllabus content in a short period. The way we address this content will either engage our students or turn them into 'yawning sixth formers.' The Geographical Association's (GA's) quote at the start of this project advocates this. This project therefore aims to examine how we can move beyond the traditional passive approach to A-level geography education to more active methods.

With geography being more relevant in today's society than ever, it is important we strive for the highest standard of geographical education. This research focuses in on the teaching of case studies, an identified area of weakness in the school. This is focused on the environmental issues apparent in urban areas. Case studies form an intrinsic part in learning about urban areas as it anchors the theory of the topic into the real world. For this reason the theme is suitable for the requirements of this research.

The topic comes under the OCR (2008) Advanced Subsidiary (AS) level specification, AS unit f762 (OCR, 2008). The unit is titled 'Managing Change in Human Environments.' Within this a sub-topic, as shown in figure 1, is used for this project. Students are required to know the background information regarding environmental issues as well as two in-depth contrasting case studies. The

lessons for this research explored the environmental issues using smaller examples and case studies. This then cumulates into larger case study teaching in the final column of figure 1.

| What are the environmental issues associated with urban change? | Urban change can put increasing pressures on the environment including:
• traffic congestion;
• atmospheric pollution;
• water pollution;
• urban dereliction;
• waste disposal. | The study of **two** contrasting urban areas, including practical research or out-of-classroom work – fieldwork, to illustrate:
• the problems of traffic congestion and atmospheric pollution and their management;
• the problems of managing increasing volumes of waste;
• the problems of managing the growing demand for services such as water and sanitation;
• how urban change can create areas of dereliction. |

Figure 1. Specification extract of topic (OCR, 2008)

I conducted this research while on a professional placement as part of teacher training during the 2009 spring term. To maintain the anonymity of the school it is not named. The school is within the state sector and is non-selective, providing comprehensive compulsory education for 11-16 year olds. Additionally the school has a sixth form. On the last Ofsted Inspection the school was rated as satisfactory. Additionally Ofsted (2008: 3-4) summarises the social background of the school:

> "The proportion of students eligible for free school meals is below average. There is a lower than average number of students from minority ethnic groups or those who speak English as an additional language... The proportion of students with a statement of special educational need is above average but, overall, of those with learning difficulties or disabilities it is below average."

As part of my placement I took over an AS-level class of nineteen students. The class consisted of a slightly higher proportion of males than females. In the last examined topic in the January grades ranged from As to unclassified. Several members of the group failed to attain their predicted grade. Issues had existed over the behaviour of some members of the class during lesson time.

To guide, drive and focus this project four research questions in table 1 were used. These were devised from the literature review in chapter two as well from examining the problem identified within the school.

The methods of data collection are discussed in the methodology chapter. All questions are answered in the results and discussion chapter. The conclusion brings together a summary of all the findings related back to the research questions.

Education is a major part of today's society. Learning has been acknowledged in Europe as the very core of economic development (Niemi, 2002). With this level of importance research is constantly taking place. The Institute of Education alone had a research income of £18 million in 2008 (IOE, 2008). This research may not be of revolutionary proportions but it does aim to further the development of learning. The scale of the study is small and narrow in focus so it is therefore necessary to consider this in making any generalisations outside of the study environment.

Research Question Number	Research Questions
1	What should year 12 AS-Level OCR Syllabus students learn about urban management case studies?
2	How are AS-Level case studies currently taught in school?
3	How do the learners feel about the effectiveness of case study teaching? And what changes can be made to the teaching/learning to increase the effectiveness of A-level case study teaching?
4	How effective were the new methods in actively engaging the students in learning?

Table 1. Research questions

Literature review

A necessary part of any study is a consideration of the background literature. In conducting a literature review ideas can be refined and broadened, gaps in research can be identified, comparisons can be made and methodologies shown (Healey, 2003).

This section will first examine case studies, their definition followed by their use and role within geography. This will lead on to the literature regarding A-level geography, further subdivided into the A-level learner and the A-level teacher. Having ascertained the background to the project this section then explores active learning by first examining its definition then moving onto examples.

This review does not provide a comprehensive review of all the available literature. However a breadth and depth approach is taken to gain an insight into the background and current research.

Case studies - the definition

The geography topic focus of this study is the teaching and learning of case studies. Fry*,* Ketteridge & Marchall (1999) suggest that case studies are complex examples, which provide an insight into the context of a problem as well as illustrating the main point. They are coming from the view of a resistant materials subject rather than geography. A similar theme emerges from Davies and Wilcox (2003) who see case studies as demonstrations of theoretical ideas in an applied setting. A theme of application and illustration of point emerges.

Following this, geography case studies can be seen as way of adding depth to the study of a topic (Hill, 1999). They are defined as a real example of something that has been studied (Blades, 2000).

Case studies - their use and history

Case studies are necessary at many levels within geography. The OCR exam board specifies that students must study them (OCR, 2008). Davies and Wilcox (2003) see them having three major uses from their own experience: first to encourage active learning, second to bridge theory to practice and finally to increase student enjoyment of a topic.

Walford (2001) presents a detailed history of the teaching of geography within Britain. Figure 2 presents a time line of the development of geography teaching of case studies. This shows how they have developed and become more important today.

A-level teaching and learning

Literature is quick to place an opinion on A-levels. Turton (1997) sees the A-level as being characterised by the need to cover large amount of information in a relatively short time. He continues to cite a past problem of a jump between an enquiry based Geography GCSE to a highly theoretical A-level. It maybe argued therefore that case studies are more important than ever at A-level, referring to Davies and Wilcox (2003) that case studies allow the demonstration of theoretical concepts in application.
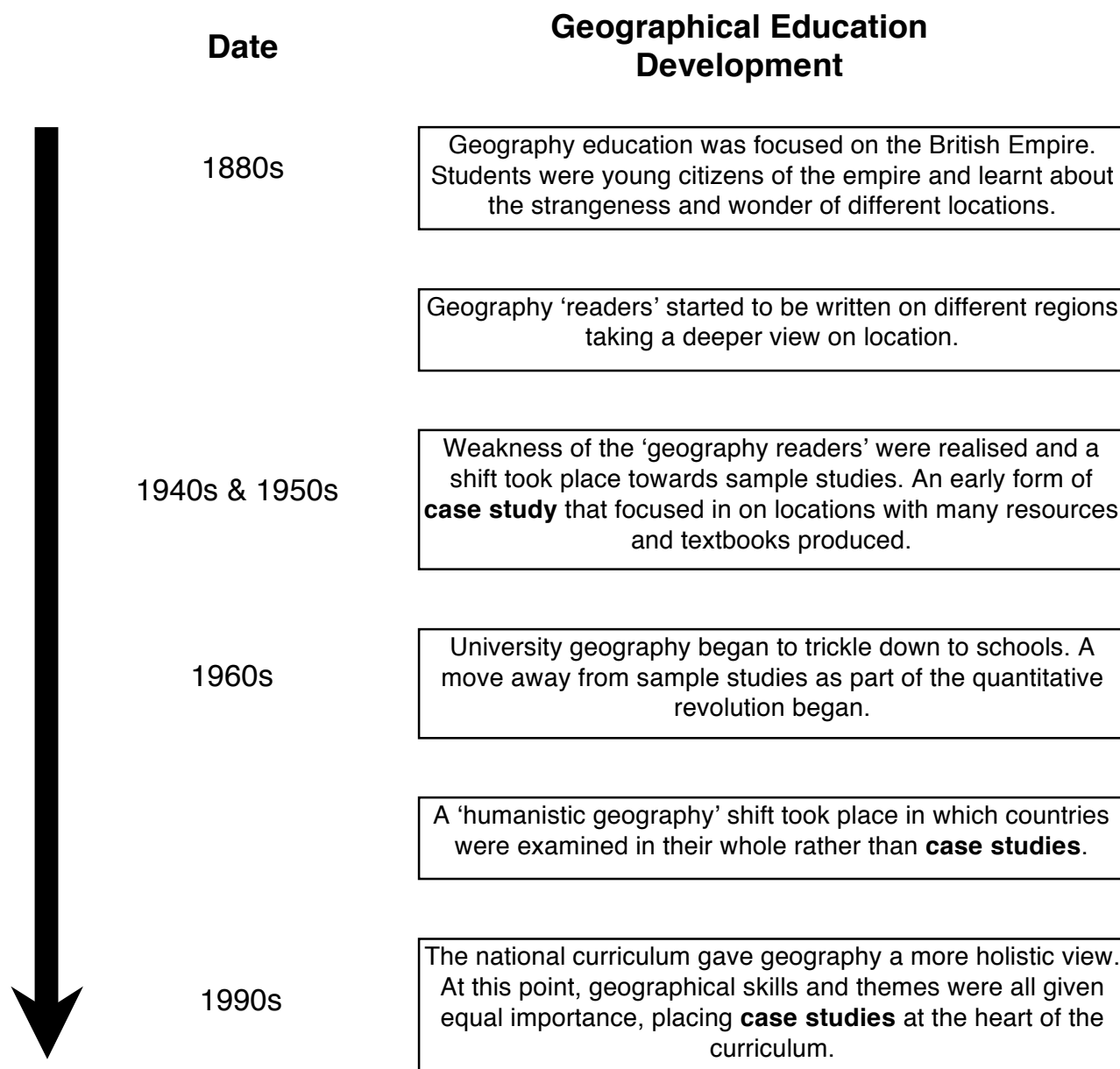
Date	**Geographical Education Development**
1880s	Geography education was focused on the British Empire. Students were young citizens of the empire and learnt about the strangeness and wonder of different locations.
	Geography 'readers' started to be written on different regions taking a deeper view on location.
1940s & 1950s	Weakness of the 'geography readers' were realised and a shift took place towards sample studies. An early form of **case study** that focused in on locations with many resources and textbooks produced.
1960s	University geography began to trickle down to schools. A move away from sample studies as part of the quantitative revolution began.
	A 'humanistic geography' shift took place in which countries were examined in their whole rather than **case studies**.
1990s	The national curriculum gave geography a more holistic view. At this point, geographical skills and themes were all given equal importance, placing **case studies** at the heart of the curriculum.

Figure 2. Teaching of geography case studies adapted from Walford (2001)

In 2008 the A-level specifications were changed by the examination boards, in response to the Qualification and Curriculum Authority (QCA). The new syllabuses are less restrained in content, however they have many traditional elements with similar topics being carried from GCSE to A-level (Pointon, 2008). Additionally Pointon identifies that the focus is on topical themes rather than theoretical concepts.

With a change seen through the progression from GCSE to A-level the nature of the student must also change. Coffield *et al* (2004) state that post-16 students should try to have a greater self

awareness and metacognition. Lambert and Balderston (2002) see that in post-16 education it can be useful for students to be aware of the different learning styles, as well as taking time to reflect and take responsibility for their own learning. This final point is also noted by Turton (1997), who believes that the responsibility for learning should be transferred towards the learner during A-Level. This suggests that A-level teaching should differ from that of Key Stage 3-4. This may not be in all respects of teaching, for example the need for engagement at all levels, but a shift is argued for.

Beyond this shift in learner responsibility Turton (1997) also sees the role of a teacher in post-16 education move towards that of a facilitator. He states the main teaching and learning styles being the overhead projector, video, IT, DME, games and simulations. In reality these slightly dated technological methods are strategies for teaching and learning rather than styles. The use of learning styles is somewhat controversial with some seeing them as more fashionable ways in which to define the different people's learning (Watkins, 2003).

In continuing to consider the teacher at A-level, Ferretti (2004) found that the choice to take A-level was not influenced highly by the expectation to get good teachers. This expectation was rated joint ninth out of fifteen possible influences. This should however be taken with some caution. The study was very narrow with only thirty-eight students which makes generalisations outside of that particular class difficult. However, it does raise the issue of considering the perceived importance by students in getting good teachers.

Active learning

The title of this project refers to passive learning, which is the situation where the learner just takes in what is being taught and is characteristically surface learning only (Roberts, 2001). The research questions aim to improve case study teaching and learning to actively engage students. Within the literature a method of doing this is found to be active learning.

Active learning is not a new idea within geography. James Fairgrieve (1870- 1953), an influential geography teacher of his time, believed in the development of active learning (Walford, 2001). It would therefore be appropriate at this point to discuss what is meant by the term 'active learning'. Lambert and Balderstone (2002) see learning as an active process that connects knowledge and meaning, in which new ideas, thoughts and skills are assimilated. However Bonwell and Eison (1991) do not see learning *per se* as actively learning. They define it as instructional activities

involving students doing things and thinking about what they are doing. This is a definition supported by Sceynenes *et al (*2008) who sees it as a wide range of learning strategies aimed at encouraging participation in learning to develop curiosity and student attention. Lunberg and Volman (1999) see the defining point as students taking an active role in their own learning. This is expanded upon by Sivan (2000), with moving learners beyond passive recipients of information to participants in activities that include analysis, synthesis and evaluation. Baldwin and Williams (1998) go further in describing the main principles of active learning:

• The learning process is started from the needs, desires and perceptions of the learner

• Learning is structured to support the learner

• A learner centred environment is created

• The primary responsibility over learning should be shared with the learner

• The teacher should take the role of enabler and facilitator

• Independent learning should be promoted

It is clear to see that active learning is a difficult to define. The definitions have different amounts of detail, yet similar themes emerge. The idea of the learner being involved, using higher thinking skills and taking responsibility are the core elements found in defining active learning.

Active learning application

Having establisehd what active learning is, this section now considers its current application in the literature. This starts at higher education before moving into secondary schooling. Finally a consideration takes place of some of the arguments for and against active learning. This then provides the basis for this research, feeding into research questions three and four.

Research by Charman and Fullerton (1995) was intended to improve understanding in a geography theory lecture module for undergraduates. They wanted to make a more stimulating, interactive, active and motivating environment by using several different active learning strategies. These included hand out notes, small discussion sessions as part of the lecture and an anonymous questions box after each session. A questionnaire was then used to gain student opinion. This found that 80% of students preferred having a hand out before the lecture, however only 60% had read it before the session. Additionally only 19% of students had asked a question. However 66% felt

learning had been improved. This is slightly subjective, as the learner had no formal assessment as part of this study. It does however provide some strategies that can be adapted for use.

Bonwell and Eison (1991) in their guide to active learning suggest several ideas to implement active learning into lecture scenarios. These include pausing in the lecture to give students time to think, increasing learning. The use of brief demonstrations and conducting short writing exercises followed by group discussions are also championed. Additionally the use of discussion to develop deeper thinking skills and aid longer-term information retention is suggested.

An active approach to learning with geography is suggested by Grant (1997) using a case method of teaching. This is more commonly known as the enquiry approach in the UK. Roberts (2006) sees the approach being a contrast to the learning style of transmitting or delivering information to students. Grant (1997) comments that this leads to greater knowledge retention than more passive approaches. In addition, he see lectures as being unable to teach the skills of judgement, analysis and problem solving which are all characteristics of active learning. This can be expanded on by Roberts (2006) who believes enquiry supports knowledge retention and construction.

An in-depth study took place at the Hong Kong Polytechnic University by Sivan (2000). Active learning was implemented onto three courses in Hotel and Tourism Management. Student opinions were compared to that of the traditional lecture. They gauged the extent of enjoyment, enhancement of learning and contribution to the students' futures through a questionnaire. Activities such as games, role-play, simulation, discussion, students' presentations, videos and library exercises were implemented within the course seminars. They found that active learning helped student to learn effectively, apply knowledge, develop independence, learning skills and prepare for future careers.

All the studies discussed show some form of evidence that active learning can be implemented successfully in higher education. This is the destination for many A-level students. Although the studies had limitations a consideration of them should still be made.

Some work has been undertaken with the secondary and sixth form environments of this matter. Within secondary education Niemi (2002) conducted a large-scale study into how teacher education may promote active learning and the obstacles to this. The research was conducted in Finland, therefore only the more general ideas can be taken into the UK context. Data collection took place through surveying student teachers, teacher educators, teachers and pupils. A small number of interviews also took place with teachers, 11 in total. These interviews were also conducted in 1996-

97 some years previous-to study publication. In addition, sixty-eight lesson observations took place but it is not evident that they fed into the study. The typical active learning strategies found included the working on assignments, students setting their own learning objectives, group work and problem solving. The findings showed teachers viewed active learning as having high amounts of preparation work coupled with a lack of resources on the strategy. In addition, a consideration of the teachers' pedagogical role was also taken. This was found to include greater metacognition on the students' part as well as some students being more ready than others for active learning. An opinion existed that students need to get used to active learning. The element of metacognition fits in with the opinions of Coffield *et al,* (2004) on A-level learning in the UK.

In Klein's (2003) paper he suggests examples of active learning activities for teaching on world geography courses. He leads a university module in the USA. However he believes the strategies can be easily adapted for the high school (UK Secondary School). Despite this very little literature exists in regard specifically to active learning in post-16 geography or within secondary school education.

In Baldwin and William's (1998) guide to active learning they see reflection by the students playing a core role. The first level of reflection being on themselves; and the second in giving and receiving feedback. However the findings of Niemi (2002) would suggest that for both levels it is necessary for students to get used to activities like this.

With Niemi (2002) starting to pick up on some of the difficulties of active learning, it is appropriate to consider this further. Kirschner, Sweller and Clark (2006) feel that minimal guided instruction is less effective than instructional approaches. With active learning having a greater element of responsibility on the learner, a minimal guided approach could lead to less effective learning. Mayer (2004) conducted a literature review, which concluded that sufficient evidence exists to show problems of discovery-based learning. He concludes that guided learning is more effective as it sits within the constructivist paradigm. Sceynens *et al (*2008) see active learning sitting in the constructivist paradigm. In addition Mayer (2004) advocates a need for activity to move beyond behaviour in type to cognitive, learning by thinking not by doing.

In an article by Sceynenes *et al (*2008), the authors aim to explore the concerns over active learning in the context of geography. This is conducted with four case studies from the authors' own experiences at undergraduate teaching. This may not constitute the most ideal method of data

collection, but it does raise some important issues of discussion. They structure this around the 'myths' of active learning. The myths related to this study are presented in table 2, with reference to other authors work already discussed in this literature review.

Myth Number	Myth (Sceynenes *et al*, 2008)	Links to other literature
1	Doing is active learning.' They argue that 'doing' require no deeper thinking.	Agreement: Mayer (2004) believes that it is necessary to move beyond behavioral activities to cognitive activities.
2	Active learning does not suite students in their first geography class. An assumption taken from students lacked prior knowledge of active learning.	Disagreement: Within Mayer's (2004) study teachers did believe that students required time to get used to active learning.
3	No place exists for passive learning in an active learning approach. They argue that lecturing is a useful and necessary teaching method to transmit information	Agreement: Transmission of information is needed within A-level geography as discussed earlier by Turton (1997). However it has been shown that active learning can be incorporated into lectures (Charman & Fuller, 1995).
4	Active learning requires too much work for students and lecturers. They argue that it does not necessarily require more preparation time. This goes on to consider that for students active learning could reduce their exam preparation time in the long run. They do however comment that for active learning to work it require students to be mature enough to see their own responsibility for learning.	Disagreement: In the study by Niemi (2002) they found that active learning did require more preparation time. Agreement: The issue of a shift in responsibility is also considered by Tuton (1998). However Baldwin and William's (1998) guide highlights that the learner can be resistant to the shift in power.

Table 2. The myths of active learning according to Sceyenens et al (2008), with reference to other literature

It is evident in this review that the work of active learning has been focused within higher education. However, many of the principles are the same in post-16 learning. A gap therefore exists within the research on active learning in this age group. The background, strategies and arguments feed into the research of this study.

Questions	Analysis
Article Reference: The Authors:	Wong, S. W., Tang, B. S. & Horen, B. V. (2006) Strategic Urban Management in China: A case study of Guangzhou Development District. *Habitat International*. 30, 645- 667 The authors are established writers in their field from Hong Kong Polytechnic University and The University of Queensland, Australia
What was the research trying to achieve? How does it relate to urban management teaching?	-The paper aims to review the concepts, principles and approaches to urban management -The authors want to present a set of evaluative criteria based on a strategic approach for assessing urban management performance -The findings of the paper are expected to assist in identifying problems in cities to make improvements (including environmental issues)
When and where was the research undertaken? Who is the intended audience?	-Guangzhou Development District (one of the fastest growing district in China) -The paper was published in 2006 with references being dated up to 2004, however the paper does not make the time scale of research explicit -The intended audience is urban managers
What was being researched?	-The practice of urban management in China
What method of data collection were used in the research? Were these appropriate to answer the research questions?	-The main source of research was a literature review of urban management concepts. This is done to argue for a holistic point of view. -Using literature the paper creates a strategic model using the principles of good planning and management guidance from the literature -The model is applied to a case study for exemplification -The methods were appropriate to the research questions as they attempted to use best practice from other studies. A problem may exist if the studies in the literature review contain any unknown weaknesses. -The paper lacks a method of evaluation for the model created
What methods of data analysis were used in the research?	-The paper lacks data analysis to compare the findings of the model to an independent verification. The model is applied to the case study of Guangzhou Development District.
What are the main conclusions that the report draws? Are levels of generalisation appropriate from the evidence generated?	-The use of the model can provide direction and change in the way urban areas are managed during times of growth. With the current problems highlighted with urban management in the current system the model should assist in shifting the management approach. -An important part of the strategic model highlighted is the need for criteria for measuring the outcome for continual evaluation -The case study highlights that performance assessment is a core element in using this approach from the case study. However this conclusion is reached from evidence from the one case study only.

Table 3. An in depth analysis of Wong, Tang & Horen (2006) urban management paper

The urban management topic

The topic and subject matter is part of the exam specification. However it is necessary to consider the wider need to learn this. Hamnett (1999) puts forward the importance of the subject due to the majority of the UK population being urban. We need to know more about cities due to them

changing and the likely implications of this in the future. Further discussion of what should be taught can be found below.

It is not necessary to consider a full literature review and search of urban management in the academic world. However it is necessary to consider what is currently taking place within urban management research. Table 3 analyses the work by Wong, Tang & Horen (2006) on urban management in China. Despite some shortcoming within the research, it does show that urban management is a current and important topic. China's rate of urbanisation is accelerating, making the need for urban management even more important.

Within the new National Curriculum for Key Stage 3, (QCA, 2007) the study of urban environments can take place within all the geography concepts, providing a base for further study at GCSE. Within the study school a change of syllabus is taking place to the new OCR specification B which includes work on settlement and sustainable cities (OCR, 2009), which can be developed at A-level.

Methodology

Introduction

All research requires a methodology and method to guide, give direction and process. This is crucial throughout the research from data collection to analysis. This section will outline what took place in this project. The methodology forms part of all the research questions.

This section will set out first the methodology used, followed by the methods for data collection, and then a brief discussion of data analysis and interpretation.

Methodology selected

To fulfil the research aims a methodology was used to organise the collection and analysis of data. In this instance an action research methodology is applied, which has seen success in educational research (Herr & Anderson, 2005).

The very nature of this research trying to improve learning in post-16 education is implicit of action research. Denscombe (2003) sees action research leading not only to understanding but also change. Koshy (2005) views it as an enquiry process which constantly refines practice.

With this Denscombe (2003) define four principles. First it is a practical approach that deals with real world issues and problems. The title and the research questions of this project fits this. Second the idea of a change approach to practical problems. Within this project I refer to the shift from passive to active learning. Third the concept of a cylindrical feedback process being undertaken. Here we see a process of improvement through reflection and planning before moving on in the research. An active intervention takes place in collaboration with the parties involved (Hitchcock and Hughs, 1995). Figure 3 demonstrates this cycle.

Fig. 3 The action research cycle (after DET, 2008)

Finally Denscombe (2003) sees the fourth defining feature as participation. Researchers conduct the research on themselves in the company of other people (McNiff and Whitehead, 2002). Within this work I conducted the research as well as taught, reflected and planned as part of the cycle figure 3.

To enable this research to be as open and useful as possible, it is important to consider the weaknesses of action research and how this study responds. Table 4 documents the methodological issues of action research and how this study addresses these.

Action Research Methodological Issue	Reference	How does the referenced author address it?	How is the issues addressed in this research?
Action research does not work well in comparison or statistical based studies.	McNiff, (1998)	Action research should take a humanistic point of view	The research is based on teaching and learning of individuals with no comparison or statistical study. The project takes a humanistic view.
The cycle of research can be too prescriptive and restrictive.	Costello, (2003)	The level of prescribed method depends on the research cycle model being used. However the prescriptive and restrictive nature can ensure structure in the method.	A basic research cycle is used as per figure 3.
The terms 'action' and 'research' are not interchangeable. Without clear distinction there is confusion between practice and theory.	Hitchcock & Hughs (1995)	Ensure clear definitions	Actions are the teaching of the lessons. This leaves the research as the literature review, focus groups, reflections, observation and pupils' work. The research being an analysis of the action of positives and negatives to feed into future actions.
Reflection is a wide and loose term. The issues also incorporate the different abilities of people to reflect.	Hitchcock & Hughs (1995)	Ensure clear definition. Consider the different reflections taking place.	Reflection is placed as part of the action research cycle. The reflection aims to examine the active learning as well as the achievement of learning objectives. Reflection is conducted by myself on the lessons, the focus group and pupils work. Observations are taken by the teacher observer.
Emancipation can be a key issues in action research. However the main issue surrounds emancipation of whom?	Hitchcock & Hughs (1995)	Refer to the current education and political context.	The focus of the research is the improvement of learning within one class, in the current British AS-level education system.
Action research is seen by some a 'soft science.'	Hitchcock & Hughs (1995) Andrew-Evans (2006)	Research must provide rigor. Data triangulation is used in the study to overcome the concerns over validity of the methodology.	Data triangulation is used with pupils work, focus groups, teacher observations and personal reflections.
Contribution of action research to educational theory and political context of education	Hitchcock & Hughs (1995)	Factors of local structures, legislation and views on the role of teachers must be taken into account.	The small scale research is kept within the context of the study location.

Table 4. Methodological issues with action research

Paradigm

In considering where this research sits in the wider context we must consider the research paradigm. The very nature of action research being a cylindrical enquiry makes it an opposition to the positivist social research paradigm (Hitchcock and Hughs, 1995). Further, Hitchcock and Hughs (1995) note it can sit in the qualitative, interpretative or phenomenological paradigms. Cohen *et al* (2007) suggest a critical paradigm has the characteristics of action research; taking the ideas of small groups and individuals to understand, interrogate, critique and transform actions. Clearly different researchers use different definitions and structures with paradigms. The aims of this research, in examining and improving an element of post-16 teaching, fits in with the ideas of a critical paradigm as suggested by Cohen *et al* (2007).

The research diagram

Figure 4 documents the process undertaken. The action research cycle used feeds data from the reflection, observations and focus groups back into the research.

The remainder of this chapter will discuss the methods used in this research.

Department research

To assist in answering research question two, work was carried out within the Geography Department. This consisted of the examination of department lesson plans and discussions with staff. This feeds into the start of the research cycle.

The department lesson plans were examined for passive and active learning using the research in the literature review. To retain continuity of the urban geography topic, two year 13 lesson plans of case studies in managing urban areas were reviewed.

Department research was also conducted through discussions with geography staff. I gained an insight into the teaching methods of case study topics. This does not form a key part of this research due to time restrictions but feeds into the overall 'feel' of the research.
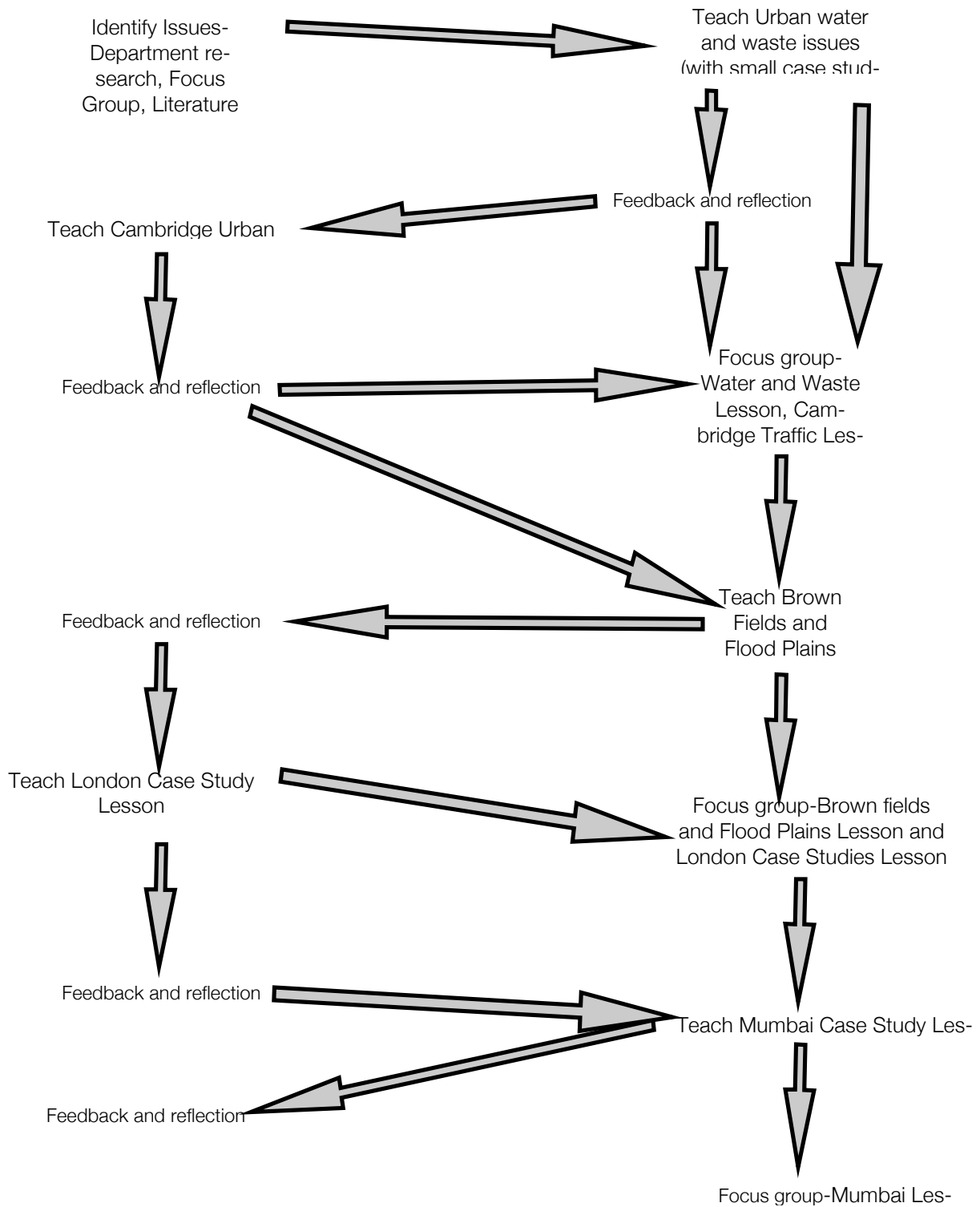
Identify Issues-
Department re-
search, Focus
Group, Literature

Teach Urban water
and waste issues
(with small case stud-

Feedback and reflection

Teach Cambridge Urban

Feedback and reflection

Focus group-
Water and Waste
Lesson, Cam-
bridge Traffic Les-

Feedback and reflection

Teach Brown
Fields and
Flood Plains

Teach London Case Study
Lesson

Focus group-Brown fields
and Flood Plains Lesson and
London Case Studies Lesson

Feedback and reflection

Teach Mumbai Case Study Les-

Feedback and reflection

Focus group-Mumbai Les-

Fig. 4 The Research and Lesson Sequence Diagram

Topic research

To ensure that correct topic and subject knowledge was taught consultation took place of the OCR syllabus (2008). In addition, background information including the case study data was taken from the exam board approved textbook by Dove *et al (*2008). My own subject knowledge for teaching was supplemented through academic text. This enabled the answering of research question one on what students should be taught.

Activity Selection

To move beyond passive learning it was necessary to devise lessons that incorporated elements of active learning. These elements were taken from research discussed in the literature review. In addition the action research cycle was used to change and alter activities to build and improve upon through reflection and planning. Table 5 provides an overview of the lessons that were taught. These can all be seen to fit into figure 4.

Observation and Reflection

A key element of the action research cycle is the observation and reflection stage. This is the driving force for the next set of actions. For this research this is answering research question 4. These reflections fed into the planning of lessons at several stages as shown in figure 4. This project used four inputs for this:

Lesson Observations

Personal Reflections

Examination of Pupil Work

Focus Groups

Personal reflections conducted by myself were focused on the lesson from the teachers point of view. I considered what went well, what had room for improvement and the reasons behind this. In addition I reflected if the students had met the learning objectives. To assist in this student work was examined.

Lesson observations were undertaken by a geography teacher. To maximise the use of the observations copies of the lesson plans were supplied with comments that related to the theory of active learning and the learning objectives.

Lesson Number	Lesson Title	Lesson Objectives	Main Lesson Activities
1	How thirsty and dirty to the environment are we?	-Students will understand the main environmental issues associated with urban change -Students will know the problems within water and waste created by urban growth -Students will use the UK as an example	-Pictionary -Multiple rotational activity
2	Movement in Cities: Is it all about getting from A to B?	-Students will understand the traffic and transport issues in urban areas -Students will develop possible strategies for dealing with traffic congestion -Students will understand the issues connected with transport (oil, air, pollution)	-Picture discussion -Power point presentation -Group poster work -Presentations -Reflection of notes
3	Is not building on Brownfield Sites and Flood Plains a Missed Opportunity?	-Students will understand the main causes of urban dereliction -Students will consider the issues associated with urban dereliction -Students will develop the arguments for and against building on a flood plain -Students will know an example of a local flood plain and brown field site	-Mini essay -Discussion -Poster planning
4	Does London have Environmental Issues?	-Students will understand the case study of the London urban area in relation to its' environmental issues	-Examination of specification -Concept mapping -Question box
5	Urban Mumbai: What are the Environmental issues?	-Students will understand the environmental issues associated with urban change in Mumbai -Students will apply the concept mapping method of organising information and ideas	-Examination of specification -Concept mapping -Mini-essay

Table 5. The sequence of lessons taught.

For this study a selection of students work was collected for analysis. Work was collected from the same six students (referred to by letters A-F in this research) who also formed the focus group discussed in the next section. Work was examined for the learning objectives. The selection of students followed two stages. First the project was outlined to the students and volunteers were

sought. Following this the class teacher was asked to select students whom she considered to represent different types of students. Criteria were set to include both sexes and range of abilities. This has worked successfully in other studies such as Niemi (2002).

Focus group

The focus group was used to feed into research questions two, three and four. This research is not only concerned with achievement of leaning objectives but also the wider opinion of the learners in the effectiveness of learning.

The use of a focus group allows the probing of topics (Cohen *et al,* 2007). It gives the flexibility to explore attitudes, perceptions, feelings and ideas (Denscombe, 2003). An approach was taken to have less structured questions to get the participants talking about the broader thoughts in their learning. However due to the nature of the groups' maturity level I took a more structured approach to moderating, in which direction was given to maintain focus (Morgan, 1998).

Focus Group	Main Themes to discuss	Main Guiding Question
Initial Focus Group	-Past case studies -Positives and negatives	-How have case studies been learnt in the past?
Post lesson 1 and 2	-The learning experience of the water and waste lesson -The learning experience of the Cambridge Urban Traffic lesson	-What worked well in learning? -What could be improved upon?
Post lesson 3 and 4	-The learning experience of the Brown fields sites and flooding lesson -The learning experience of the London Case Study Lesson	-What worked well in learning? -What could be improved upon?
Post lesson 5	-The learning experience of the Mumbai Case Study Lesson -Effectiveness of active learning	-What worked well in learning? -What could be improved upon? -How effective has learning been over the last five lessons?

Table 6. Summary of the focus group objectives

The students were selected as discussed above. This would be defined as a small group but does allow each person to say more leading to greater depth in discussion (Morgan, 1998). In total four

focus groups were conducted as show on figure 4. Each focus group had slightly differing themes as shown in table 6. Notes were taken during the interview. Each focus group then fed into planning of lessons according to figure 4.

To analyse the focus group data an interpretative approach was taken. Patterns and themes were noted giving clusters of units of relevant meaning (Cohen *et al,* 2007). This was aided by using the focus group themes and main question to drive the analysis (Kruger, 1998). The diagram of figure 5 represents the analysis continuum used. It can be seen that the recommendation could then be fed into the action research cycle.

Raw Data → Description (Summary)   Interpretation (Understanding)   Recommendations (practical consequences)
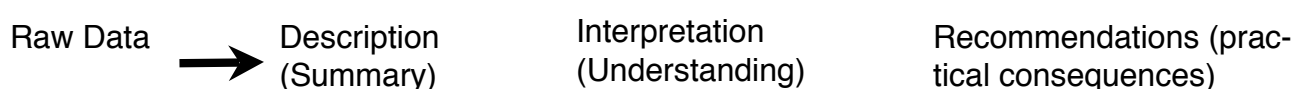
Fig. 5 The analysis continuum (after Kruger, 1998)

Triangulation and data analysis

A major criticism of using focus groups is the difficulty of separating content of discussion from what was unique in that focus group (Morgan, 1998). This research takes a triangulation approach, in which several sources of data are used to reduce this problem.

Overall data analysis takes a thematic approach. The main ideas and themes were extracted from the focus group data first. A mind map was constructed from the individual focus groups with ideas then linked across the sessions. On to this, lesson observations were added to link in with the themes from the focus groups. New themes identified were included. Finally on examination of pupils' work, in relation to the lesson objectives, ideas were grafted onto the mind map where appropriate. All pupils' work examined was annotated concerning the learning objectives of the lesson. This allowed the overall patterns and themes of the research to be identified, discussed in section 4.

Ethical considerations

To uphold the ethical standards of educational research this project has withheld the names of the school and pupils to ensure anonymity. Further all those that took part in the research gave their

consent to do so and were free to not take part at any point. A 'gate keeper' was used in the form of the students' normal classroom teacher to monitor the research and provide a point of contact for the students. In addition the classroom teacher ensured that the learning taking place as part of the study was still appropriate for the exam specification. The guidelines as set out by the British Educational Research Council for ethics were carefully followed.

Methodology overview

This research used an action research methodology to attempt to improve post-16 learning. Several forms of data collection were used as part of a triangulation approach. The data collection and research fed into the planning and deliverance of the lessons or actions.

This sits within the critical paradigm, characterised by small-scale research in trying to understand the actions taking pace.

All the data is examined as a whole to look for the main themes and emerging ideas for discussion below.

Findings and discussion

This project consisted of the researching, teaching and evaluation of five lessons. Rather than taking a temporal descriptive tactic, a thematic approach is used. By examining the overarching ideas coming through it is possible to explore the ideas and issues researched.

The research questions are answered through exploration of the following identified themes:

Activity Highlights (including discussions, concept maps, mini-essays and posters)

Time

Responsibility

The role of passive learning

Table 7 documents the quotes and evidence regarding the different themes discussed in the subsequent sections. This is referred to in the discussion.

Row No.	THEME	SUB-POINT	OBSERVATIONS	FOCUS GROUP QUOTES
1	Current Practice	Geography GCSE		"I *used to like it when we used games in case studies.*" Pupil A "*Case studies were structured and the teacher told us exactly what we needed to know, it was easy.*" Pupil B
2	Current Practice	AS-level Geography		"*...boring, dull, repetitive with too many numbers. But we know what we have to know from the teacher*" Pupil A
3	Discussion based activities	Short Discussion	"*...gets them thinking and using a range of higher thinking skills...interesting discussion.*" Lesson 2 Observation	
4	Discussion based activities	Structured Group Discussion	"*...be useful to have key questions to guide note taking...some seem a little confused.*" "*Try to encourage all students into the discussion...*" Lesson 3 Observation	"*Being able to argue as a group showed that we don't all think the same. It was interesting to see what other people thought, even if I didn't agree. I was more independent*" Pupil C "*We could get more ideas.*" Pupil A
5	Concept Map Activities	The Activity	"*...linking ideas together...the broader context of explaining the relevance of case studies.*" Lesson 4 Observation "*The concept mapping is working better this time...the use of an example helps...they are focussed and working...action research really works.*" Lesson 5 Observation	"*I liked the way is broke the whole thing up. It wasn't like we had to see every thing at once.*" Pupil A "*We got to build it back up from the start.*" Pupil D "*We were a bit limited on time.*" Pupil B
6	Concept Map Activities	Use of mini-essay		"*It made me put my brain in gear.*" Pupil C "*It was good exam practice and I had to think really quickly.*" Pupil D "*I didn't have enough time.*" Pupil A
7	Time	Use of board timer	"*time indicator...puts necessary pressure on a class that needs a quick pace or gets distracted.*" Lesson 2 observation	"*I don't usually take much notice when the teacher says how long we have. I just plod along. But with a timer it's in your face.*" Pupil A "*It really put the pressure on to work.*" Pupil C
8	Responsibility	Student Opinion		"*...it is nice to have control over your own work, but I don't want too much, I wouldn't want any more than we had. It did make me work harder though.*" Pupil A
9	Role of Passive Learning	Knowledge Building		"*We need to be told what we need to know some times, otherwise how do we know it?*" Pupil A "*I need receiving time, I don't want to be doing things all the time.*" Pupil D "*Twenty minutes of getting things from the teacher is ok.*" Pupil C

Table 7. Evidence in relation to the themes discussed

What should students learn?

Research of the exam board syllabus and textbook shows a fairly prescribed topic. This is in contrast to Pointon's (2008) belief that the new A-levels are less restrained in content. The specification in figure 1 gives clear direction on what students must learn. Freedom is included in how this is completed and a choice can be made on case studies. For this research the exam board syllabus was implemented. It worked well taking the theory first then linking it in to case studies.

It is necessary to consider the wider reasons why the environmental problems of urban change are taught. A shift has been taking place in cities from traditional finance and production to one dominated by culture and consumption (Speake & Fox, 2002). This is likely to impact the environment. The quality of the environment is seen by some to be inseparable from that of quality of life for people (Witherick, 1999). With the world becoming more urban the impacts are becoming more important and therefore the next generation needs to understand these processes. Pacione (2001: 286) summarises the importance of this "The futures of our world is an urban future."

The current practice of teaching case studies

In examining the department lesson plans it was clear that qualities of active learning are present. However they also have high amounts of passive learning. The examples (annotated for evidence of active and passive learning) in appendix one explore similar urban case studies from the A2 scheme of work. The idea of getting students to create their own presentations follows the principles of active learning. However the actual listening and note taking by the rest of the class is steeped in the passive. Information is still taken from the textbook alone.

During informal discussion with staff it was clear that the use of textbooks and PowerPoint are common in teaching case studies. The focus group showed this was not liked in table 7 (row 2). Students did however identify that the information in this format is well structured and easily accessible. Despite this is was felt that they liked to do things for themselves as "copying from books means we write it but do not know it." This was said by one student in the first focus group.

In the past the students had enjoyed learning case studies at Geography GCSE. Here they characterised the learning as being more practical, involving games, structure and spoon feeding.

They felt the teachers' role at all levels was to structure and direct students to the information. This is shown in rows 1 & 2 of table 7.

Discussion-based activities

Discussion was used through the sequence of lessons in various amounts. The work by Koklarais *et al (*2008) identified the use of discussion in active learning.

A short discussion was sparked following group presentations in lesson two. The discussion was short but the lesson observations (row 3, table 7) highlight the development of higher thinking skills being present. Students started to question each other's ideas as well as defend their own strategies to combat traffic congestion in Cambridge.

A larger discussion activity was used in lesson three. Here the lesson observer noted the impact of "students enjoying themselves." In addition time was given to take notes with strategic pauses in discussion. However problems did exist in this; some pupils were found to be confused in the note taking time, see row 4 in table 7. In reflection the use of questions to guide note taking may have prevented this.

Despite the small group size, some students were more willing to participate in group discussion than others. The observer noted (row 4, table 7) the need to encourage student to participate. This created a split in the group between active and passive learners. However the focus group (see row 4, table 7), felt that discussion did allow the sharing of ideas as well as giving a more balanced perspective over the issues.

Kokarais *et al (*2008) suggest that the critical factor in using debating as an effective learning tool is debate preparation. The structure and main ideas of the debate were planned by myself. However students were not required to do any preparation for the discussions before the lesson. A short question was posed to the students at the start for them to make some notes, which they could use during the discussion. Future work should examine this to see if full class involvement can be achieved through pre-lesson work ensuring whole class active learning.

The discussion in lesson three served as a knowledge building as part of the lesson objectives. A piece of work followed to check their learning in the form of a mini-poster to bring together different ideas. The focus group found this to be engaging, "something different" one student

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commented. Examples of pupils' work were collected in which I annotated for evidence of the learning objectives. None of the work showed evidence of examples or case studies that we had discussed. Pupil A showed a basic understanding with some figures included. Pupil C showed some knowledge of the issues and causes. The work of pupil D was unfinished, with several possible causes. The pupil may have run out of time or may have had a lack of understanding. In examining pupil B's work in more detail in figure 6 it can be seen that evidence of learning objectives 1, 2 and 3 is seen at a basic level. No evidence in the work exists for the learning objective regarding the use of case studies. It may be the case that this type of exercise is not the most appropriate for assessment. Overall this exercise suggests that the learning objectives were not fulfilled, casting some doubt over the success of discussion based learning in these lessons.

Concept map activities

The concept mapping activity (Nichols, 2001) was used twice in the lesson sequence in the London and Mumbai case studies (lessons four and five). Concept maps allow connections to be made between new ideas and prior knowledge (O'Brien, 2002). The use of the activity twice allowed the explicit use of the action research cycle. Concept maps are also seen to be explicitly active learning due to the students' centred approach and level of participation (O'Brien, 2002).

Following lesson four, the observer commented that an example would have aided the explanation as well as using pre-cut concept sheets to save students time. The use of separate cards is also suggested by O'Brien (2002). The issue of time is discussed in detail in section 4.5. In the second lesson using concept mapping an example was shown as well as pre-cut sheets being provided. This led to a smoother running lesson with a clearer idea of what was expected (observer notes table 7 row 5).

The students liked this form of learning as it broke down the ideas and issues and provided the structure they preferred, identified earlier. They did comment that time was a limiting factor for them in the activity (table 7 row 6). With the limited available lesson time, the opportunity for debriefing and discussion was curtailed in lesson four. Again samples of work were collected and annotated. None of the pupil A-C had placed any links between the main concepts. Pupil C's work shown in figure 7 does show evidence of one link being made between two headings. Nearly all students had correctly sorted the information into the correct headings. However, Pupil B was an exception to this with two errors being present. The use of discussion may have allowed this to be

corrected during lesson time. Work using concept mapping as a research tool by Walshe (2008) found that students had difficulty with concept maps when they lacked the context to base understanding. One of the aims of the sequence of learning was to develop this context. However the evidence may suggest that pupils still saw the topics as separate and individual.

With improved time management and experience, a limited amount of time was taken to debrief and discussion in lesson five. Within this students were raising the links between issues, ideas and concepts. Nichols (2001) suggests that the debriefing of a concept map can lead to discussion. Some of the students' concept maps for lesson five showed improvement on the London maps of lesson four. Pupil A constructed a correct diagram, but failed to connect the deeper links except for one concerning population. Pupil B, in figure 8, added many links onto the diagram across the different concepts, but did not take it further explaining these links. In contrast pupil C showed a basic understanding of some of the links through their own notes written on the page. Pupil D showed no links at all.

A mini-essay was used to help pupils apply their knowledge in a different way and check their understanding. This activity was discussed in the focus group, table 7 row 6. It was felt this was good practice for the exam developing question structuring as well as encouraging quick thinking. An examination of a sample of work showed a different perspective on the completion of the lesson objectives to the concept maps. Pupil A included the case study details as well as links between the issues, causes and impacts. A sequence of issues and impacts was evident from pupil B. However pupil C still only demonstrated the main issues seen within the concept map.

Time

Time often appears to be against us, in either the school day or for the deadline of exams. With active learning several perspectives of time are examined.

In lesson one, using a rotation of different activities, it was observed that student behaviour made time difficult to manage. In later lessons a timer was used on the projector to add pressure on the students to stay focussed. My own reflections as well as the teacher observations found this to be very effective. The quotes in table 7, row 7, highlight the benefit of the timer.
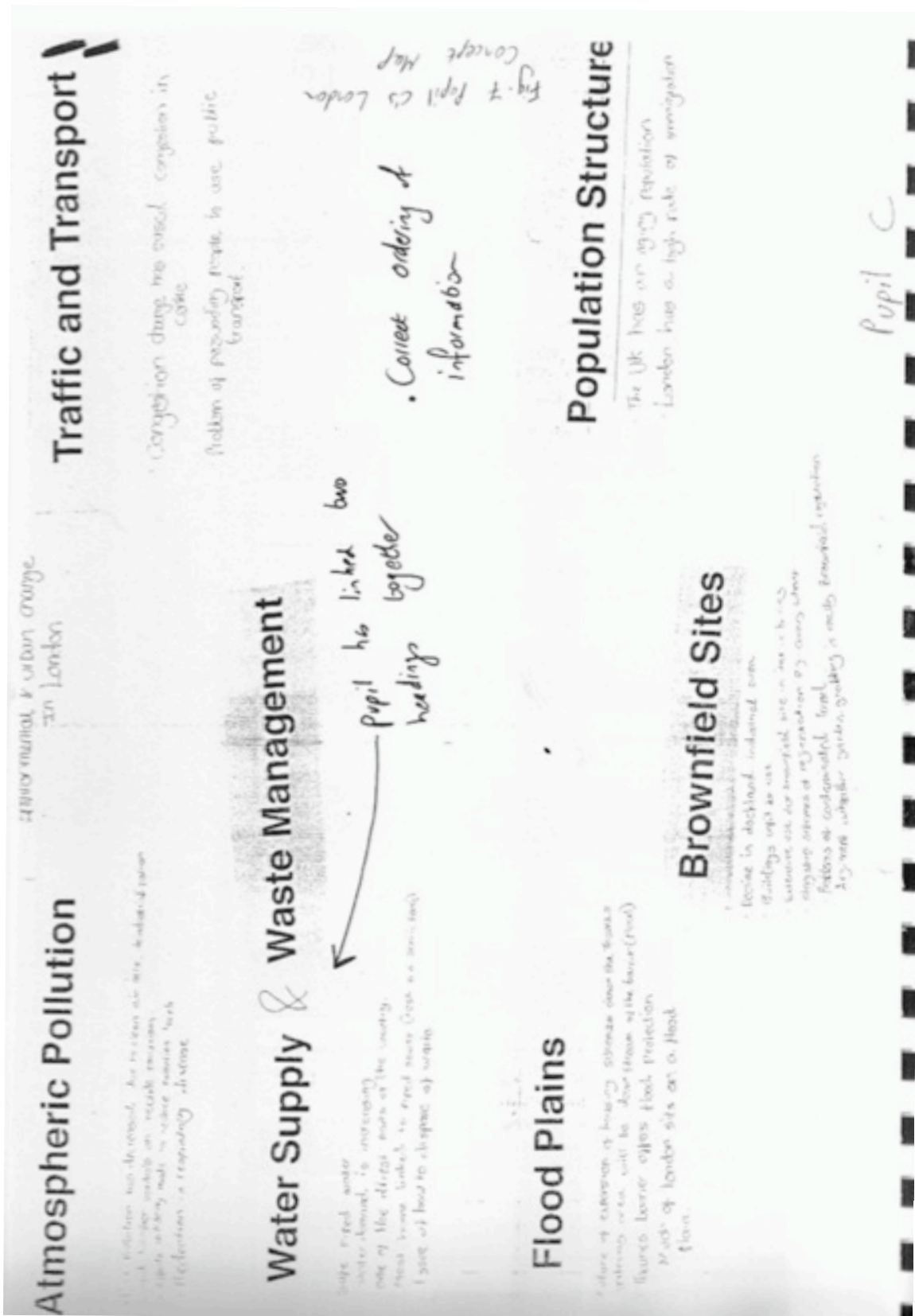
Fig. 6 Pupil B's Poster Work

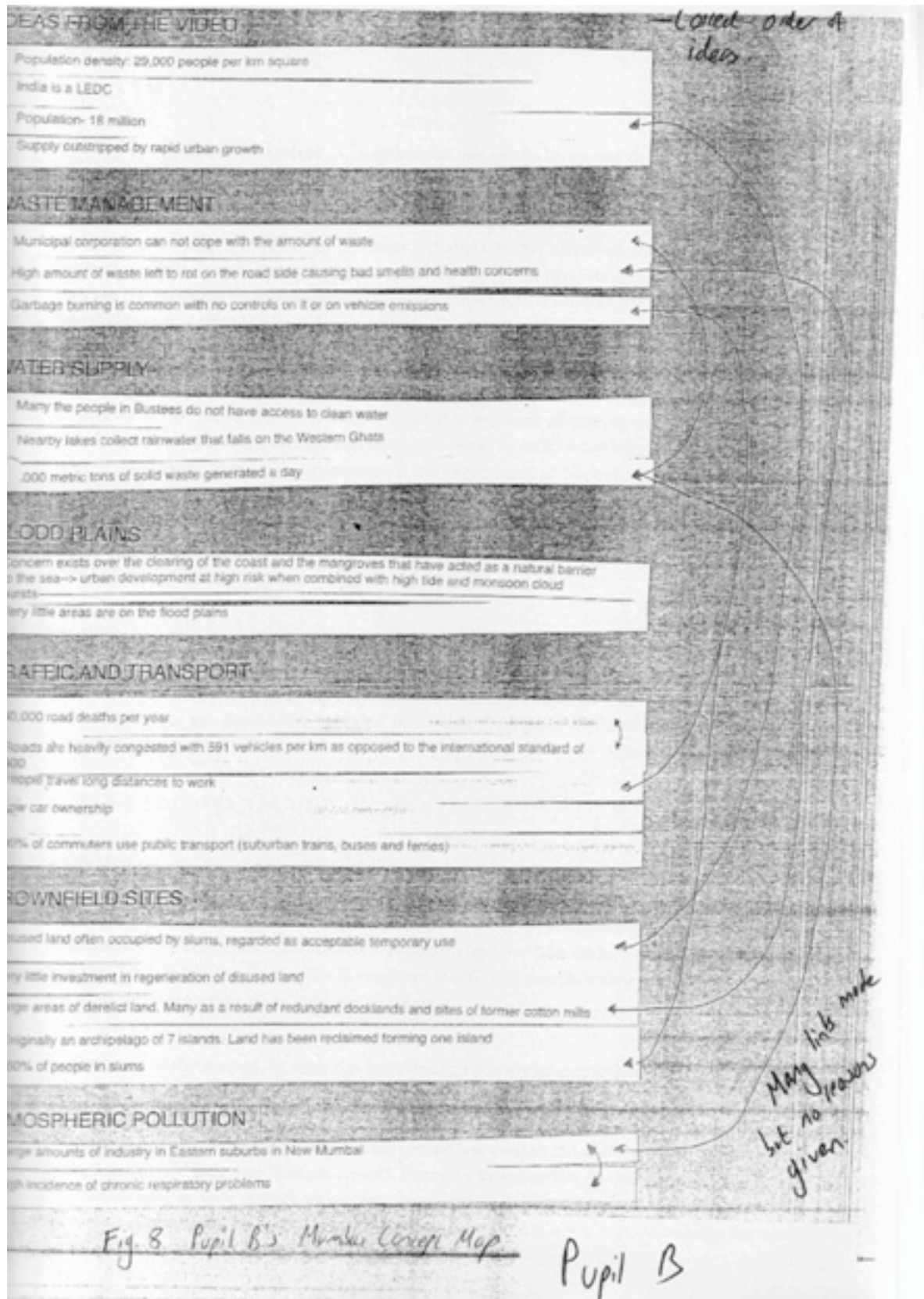**Fig. 7 Pupil C's London Concept Map**

Fig 8. Pupil B's Mumbai Concept Map

A major part of teaching is the issue of preparation. In my experience planning the activities for active learning does take considerable amounts of time to ensure an effective lesson. It can be easy to talk, lecture and use a textbook to build knowledge in students without their involvement. Even with assistance of resources such as Nichol's (2001) mind mapping, time is still required to create the resource. The work by Sceyenese *et al (*2008) brought up similar time constraints. However Niemi (2009) believes that active learning does not necessarily require more preparation time. This would be the case with the reuse of resources once they had been made.

The active learning activities and methods used varied in the length of class time required. The focus group highlighted that students felt they did not always have enough time (table 7 row 5 & 6). An example they gave being the mini-essays in which a couple of extra minutes would have allowed them to get their ideas together more fully. The length of lessons will vary from school to school.

Responsibility

A key element of post-16 education and active learning identified in the literature is the shift in responsibility from the teacher to the learner. The focus group students believed more responsibility led to harder work as seen in table 7, row 9. In considering the sequence of lessons students believed that the activities brought together "the ideas, resources and revision together"; a comment backed up by Sceyenenes *et al (*2008) in which they see active learning as reducing the exam preparation time for students.

As discussed in the section on time, the behaviour of some students in lesson one caused some difficulties. Within the focus groups, students liked the increased responsibility but with a clause shown in table 7, row 8. It is encouraging to see that students want responsibility over their learning. It has been seen that learners can be resistant to the shift in power from teacher to the learner (Baldwin and Williams, 1998). However it seemed in the lesson that some pupils may not be fully mature enough to see their own responsibility within learning as suggested by Seyevenes *et al* (2008). The concept mapping may have required too much responsibility for some students. My reflections showed a lack on concentration by some, which is a possible cause of the differences in concept maps. The more focussed were able to engage more fully with the task.

An activity used to specifically encourage a shift in responsibility was the use of exam specification in lessons four and five. The observer found this got the students "thinking, concentrating and focussed." Within lesson four students were asked to formulate their own questions from the specification. However, the observer noted that active involvement could be increased by inviting each person to pose a question. This was undertaken in lesson five, in which all students produced an appropriate question. The focus group commented they felt they had a "higher awareness" and as well as being "more prepared for the exam."

Role of passive learning

This research has concentrated on active learning. Nevertheless it is important to ask if 'passive learning' has a role. As part of lesson two I delivered a ten-minute presentation for knowledge building. The focus group found this necessary to know the background; a time to receive information as shown in table 4 row 9. They did comment that the availability of a "handout of the slides was helpful." In lesson two, following the passive presentation, students were asked to create poster presentations of ideas to reduce traffic in Cambridge. For homework they were required to write a speech to local residents on the causes, impacts and solutions. The work of pupils A and B showed a clear level of understandings, with the annotations regarding the lesson objectives. Pupil B's work in figure 9 shows a clear progression in the work from causes to impacts through to solutions and strategies. This understanding is seen with the content covered in the passive and active aspects of the lesson. This would suggest that learning can be effective, in this instance, in both active and 'passive' modes.

Several members of the focus group commented they would not want to be involved in the lessons all the time with twenty-minutes of passive learning being acceptable and some times necessary, as seen in table 7 row 9. This agrees with the discussion presented by Sceynenes *et al,* (2008) in which lecturing is suggested to be a useful and necessary teaching method to transmit information.

One student said that he was a "note person" and found summarising information from a textbook useful. This provided a difference in possible learning styles within a group. This is similar to the scenario experienced in the discussion with some students taking an active part of the lesson while some remained passive. It is therefore possible that active learning may be more appropriate for some students than others.

L/O = learning ~~state~~ objective

Pupil B

Talk on the Causes of Congestion and Associated Impacts in Cambridge and a Possible Management Plan that could Solve the Problem.

Causes of Congestion in Cambridge:

Cambridge is an old city and many of the roads in place today have grown up with the city. As the area has developed and the population density increased the road system is no longer adequate to support the traffic using it.

As car prices have dropped and salaries increased there is an growing number of people that are in possession of a car. This increased possession has lead to and increase in the number of cars on the road.

The CBD is an important area of the city and id therefore where the majority of the services are located. This has lead to people gathering into this centre and wanting to park their vehicles as close as possible.

Cause.
L/O1

Impacts of Congestion:

The current road network is overwhelmed by the traffic using it on a daily basis and it is putting a strain on the services. The mass of vehicles is causing daily congestion, especially at rush hours, and as a secondary effect a lot of pollution is being emitted into the atmosphere.

Impacts
L/O3

Current Management Plans:

All traffic is currently banned from the heart of Cambridge apart for bus services and emergency vehicles. This has led the pedestrianisation of the inner CBD.

Park and Ride services are available from the outer ring of Cambridge which many visitors and shoppers already choose to use. However many people working in Cambridge that commute in from the suburbs are still relying on their cars to get them to the centre.

Solutions + strategies

Potential Management Plans:

If there was an unlimited budget I would propose a Park and Tube service. This service would consist of an underground network connecting all of Cambridge's CBD with car parks on the outside and the suburbs. People living within Cambridge or commuting in from the suburbs would not have to pay for this service however visitors and shoppers living outside of the Cambridge area would have to pay a small fee for a day ticket, monthly pass or annual pass.

The advantage of this service would be that it would be operational whatever the weather and would increase the amount of visitors when it is raining as they would not be getting as wet. Because it would be underground it would not damage the scenery that the old City of Cambridge provides. It would also reduce the number of buses that can sometimes be a nuisance to pedestrians.

L/O2

Fig. 9 Pupil B's Traffic Speech

Fig. 9 Pupil B's Traffic Speech

Conclusion

This research has followed an action research methodology that does not aim for closure (McNiff and Whitehead, 2002). However a sequence of five lessons were researched, planned, taught and evaluated to answer the research questions and project title. This concluding section will address these questions before drawing together the findings.

What should year 12 AS-Level OCR Syllabus students learn about urban management case studies?

The first research question was found to be prescribed by the exam board syllabus. The approved textbook provides the background behind the topic. The reasons behind urban management being taught were also discussed using literature. The world is becoming more urban which affects people and the environment, thus we should ensure the next generation is educated upon the issue. The quote from Pacione (2001, pp 286) exemplifies this "the futures of our world is an urban future."

How are AS-Level case studies currently taught in school?

The research showed that the case studies were characteristically taught using passive learning techniques. This often involved the use of presentations, note taking and textbook work. Elements of active learning were found in the lesson plans as well as past teaching at GCSE level. The plans did not make the learners participants in activities that used the higher thinking skills of analysis, synthesis and evaluation associated with active learning (Siven, 2000).

How do the learners feel about the effectiveness of case study teaching? And what changes can be made to the teaching/learning to increase the effectiveness of A-level case study teaching?

The findings suggest that students were not engaged when learning case studies during their AS-level studies under the current passively dominated approach. This study implemented a range of different active learning strategies using ideas from published literature. A shift took place in the responsibility of learning from the teacher to the learner. Students were encouraged to be involved with the lesson through the different activities. Some activities were repeated and used as part of the action research cycle, for example the use of concept maps and the exam board specification exercise.

How effective were the new methods in actively engaging the students in learning?

The new methods can be seen to have successes as well as shortcomings. The learners enjoyed being involved in their own learning. They felt responsibility helped drive them to work. However they still felt a place existed for passive learning as well as not wanting too much responsibility. On the other hand their work did not always show a full understanding of the lesson objectives. Some showed a good level of knowledge and understanding in their work. Certain activities were seen to be more successful than others, while all could be developed further with time.

The difficulties behind active learning were found to be the time constraints with preparation and class time. Additionally the behaviour of some class members during activities hindered their progress in the shift in responsibility over learning.

A pressure to achieve in examinations means students need to learn information very quickly. If we look to teach all lessons using active learning this may not occur. This forms part of the debate regarding the philosophy of education, of teaching to be geographers or teaching for the exam.

Can we move beyond passive learning in post-16 education?

This project is not fully able to answer the above question. With benefits and difficulties found in active learning we can only assume from what has been found that a balance is required. We see students longing to be involved with some, but not too much responsibility, and a teacher desperately trying to balance engagement with subject content. Coupled with this is the complication of students being individuals, all willing to be engaged, wanting to be engaged differently at different levels and at different times.

Active learning in this project did engage students with urban geography case studies and examples. However, the evidence suggests that it does not fully comply with the need to build knowledge and understanding. The comments made in the focus group of the requirement of passive learning, as well as evidence in individual pupil's work not meeting the learning objective showed this. A role therefore may exist for passive learning.

The implications for myself are clear. I believe that active learning has a role to play in every post-16 lesson to aid engagement. The findings about learning were limited in this research. However, the pupil opinion of engagement was strong. I will need to consider the way that I implement the

strategies further to ensure a higher level of learning. Further I realise the need for passive learning in transmitting some knowledge and suiting the needs of all of my students.

Beyond post-16 learning the same principles can be applied in secondary school geography. All years, all classes and all lessons should engage students. If this can be done through active learning it should be. Yet we must remember the role and possible necessity of passive learning in our teaching.

As discussed this research did not aim for or succeed in having closure to the issue of active learning in post-16 geography education. Scope exists for further exploration of different activities of active learning and how we can ensure successful knowledge building as well as engagement within the topic. The balance between the passive and active learning styles needs further exploration. Consideration needs to take place on how we balance and address personal preferences to these very different styles. These are areas of possible future research.

The study is small in scale and used only a small focus group for data collection. It is therefore important that generalisation outside of the context is not taken. This is the main limitation of this study. I hope this research can prevent a yawn in a class somewhere.

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Appendix 1-Geography Department Lesson Plans

Geography Department
A2 lesson plan

Active learning- Group work, including the sharing of ideas

Unit	Rural-urban interrelationships
Lesson	5 of 18
Aim	Management of cities
Objectives	Know a range of case studies for urban management
Outcomes	Research in to one case study, then present to others

Time	Content
10	**Starter** In pairs, get as many facts as possible about Curitiba (from homework). Pair with most get to choose their case study later.
10	**Examples of urban management** Briefly go through the case studies and the resources needed and allocate them: • Docklands (*GAIA* p.440) - single • Singapore (*GAIA* p.450-451) - pair • Cairo (*GAIA* p.447) - single • Shanghai (*GAIA* p.619-670) - pair • Mumbai (*AG* p.471-472 and p.477) – pair • Birmingham (*AG* p.475) – single • Mexico City (*Changing Environments* p.218-221) – pair
25	**Research case study** Give them 25 minutes) to read through and jot some notes down – next lesson they are to present to the others.
5	**Plenary** Go through their ideas for their case study, highlighting which are political and which are economic factors.

Homework
Sort out their 'presentation' for next lesson

Resources
GAIA book
AG book
Changing Environments book

Active learning- Students begin to classify information

Passive learning- Teacher led talking on case studies

Passive learning- Students copy information from textbook

Geography Department
A2 lesson plan

Unit	Rural-urban interrelationships
Lesson	6 of 18
Aim	Management of cities
Objectives	Know a range of case studies for urban management
Outcomes	Have notes on a range of case studies Write an essay plan for a relevant essay

Passive learning– Repetition of facts from previous lesson

Time	Content
10	Starter Give five political factors for managing urban areas, then five economic reasons. Discuss.
25	Urban management case studies In turn, they present their findings, others make notes.
5 10	Plenary Write the essay question on the board: Assess the relative success of urban management schemes. Get them to write an essay plan for it. Go through

Homework

Resources

Active learning– Pupils presenting information

Passive learning– Pupils listening to presentations

Active learning– Application of information in a different format/situation