



STRETCHING AND CHALLENGING LEARNERS

Melissa Ling



JANUARY 18, 2013
OAKLANDS COLLEGE

Contents

Introduction.....	2
Action Research	3
Literature Review	5
Project Hypothesis.....	10
Methodology.....	11
Data Collection.....	14
Data Analysis	18
Summary and Conclusions	28
Reflection	31
References	33

Introduction

I am going to research how to stretch and challenge my students during their lessons. The phrase “stretch and challenge” can relate to the whole class, and be included within the lesson to the whole class, but equally it can be interpreted to mean pushing the most able students to think beyond what has been taught, perhaps focusing on the implications of what they have learned or evaluating the effectiveness of a particular model or method. I am interpreting “stretch and challenge” to mean the stretching of all the students within a class to suit their ability level. I want all my students to feel challenged in the lesson and to overcome these challenges. What is a challenge to one student will be different to another student and I would like to adapt my teaching methods to reflect this. I am choosing this topic for the following reasons:

- The Common Inspection Framework has placed an increased emphasis on teaching, learning and assessment. It states that all students should be “engaged with the right learning for them to enable them to achieve and progress.” A method for doing this is to include stretch and challenge activities within your lessons.
- I teach a level 3 class, however the students vary greatly in their abilities, I would like to develop strategies to challenge all the students in my class, whatever their ability.
- I would like to develop a profile of resources which I can use easily within my classes to ensure my students are progressing with their learning.
- The concept of “stretch and challenge” can be incorporated into all elements of teaching work including planning lessons, setting objectives, developing resources and working with students, therefore completing my action research on this will benefit my teaching practice across all areas.

The first section will discuss the concept of action research and how it can be used to improve teaching practice. A literature review will then be completed in table format highlighting the main areas which have been researched and leading to the formulation of a hypothesis based on stretching and challenging learners. Methodology will then be covered, where the method of testing the hypothesis will be discussed. Data from the classroom will be collected and analysed and finally a summary of the project and conclusions will be made linking it to the original hypothesis. The final part of this project and probably the most important will be the section on self-reflection where the main learning points of the action research carried out will be identified and evaluated.

Action Research

The following is a definition of Action research by McNiff (2002):

“Action research is a term which refers to a practical way of looking at your own work to check that it is as you would like it to be. Because action research is done by you, the practitioner, it is often referred to as practitioner based research; and because it involves you thinking about and reflecting on your work, it can also be called a form of self-reflective practice. The idea of self-reflection is central. In traditional forms of research – empirical research – researchers do research on other people. In action research, researchers do research on themselves. Empirical researchers enquire into other people’s lives. Action researchers enquire into their own”

Investigating how best to stretch and challenge students in my lessons will improve my practice by giving me time to reflect on how I question students and monitor their learning progression throughout the course. It is an investigation I can complete easily within my lessons as I can introduce new ideas on challenging and stretching learners, reflect on the ideas and modify my approach if needed. It is also a key requirement for the Common Inspection Framework and has been identified as a key element in teaching.

The Action Research cycle is detailed below:



Source: <https://www.det.nsw.edu.au/proflearn/research/actres.htm>

For my study I can research into different ways of stretching and challenging learners by speaking to colleagues, completing training courses and reading books and websites on the topic. I can then use these ideas and plan to include them in my lessons. I can implement these ideas in my lessons and observe and monitor the impact on the students of my methods. I can then reflect on how these methods have worked on my students and whether they have improved my teaching. The final stage will be an evaluation of the process which will include adaptations and improvement of the methods used. This evaluation will then improve my teaching practice in the longer term. The basic steps of the action research process are identified in the table below:

Action Research Steps	How these will be implemented
Review current practice and identify what area to investigate	I have identified the area of stretching and challenging learners within my lessons to research.
Plan how to implement methods to help you improve your practice and try these methods out in class	I will collect ideas from a variety of sources to help me formulate a plan for my lessons to incorporate different ways I can challenge individual learners.
Monitor and record what happens	I will record my results and reflections at the end of each lesson to help me come to conclusions on my teaching practice.
Reflect on results	I will draw conclusions from my results to inform my teaching practice and to give me an adequate teacher toolkit with regard to stretching and challenging students.
Adapt resources and methods as a result of the investigation	I will create suitable resources for students as a result of this investigation which I can use in my lessons.

Literature Review

For this project a variety of sources were used to include websites, training manuals, presentations, articles and books. The following is a summary of the most important literature reviewed for this project. A full reference list is included at the end. It should be noted that the term “stretching and challenging” is one which has been recently introduced by Ofsted. It isn’t a new concept, but rather one which has been renamed. In older texts “stretch and challenge” would be covered under headings such as “questioning learners” and “differentiation”.

Reference	Topics/ideas/principles covered
http://newteachers.tes.co.uk Article: How to Stretch and Challenge your students; Mike Gershon, June 2013	Three areas of teaching where stretching and challenging learners can be introduced into lessons are identified within this article. The three stages are: at the lesson planning stage, within the lesson structure and within the pace of the lesson.
http://joannemilesconsulting.wordpress.com Article: Differentiation without extra handouts: tips for stretching and challenging learners; Joanne Miles, August 2012	Looks at how to differentiate lessons without creating too much extra work for the teacher. The article gives tips on how to differentiate for learners of varying abilities, styles and speeds of working. These tips include providing early finishers with a research task online. Ask early finishers to summarise the main points of a piece of learning; include a list of reflective questions to ask students to help them reflect on their learning and what they need to research to improve their understanding further.
http://joannemilesconsulting.wordpress.com Article: Managing Pace in Lessons: some reflections and suggestions; Joanne Miles, January 2013	This article is about managing and varying the pace of a lesson to help learners keep engaged. It suggests that a graph can be plotted to show how the pace varied within a lesson. The article discusses ways in which you can vary your pace such as leaving time for reflection when delivering a PowerPoint lesson, giving time limits to class activities, mix and mingle activities or quick quizzes.
http://joannemilesconsulting.wordpress.com Article: Planning for stretch and challenge:12 practical ways to enhance your scheme of work July 2013	This article identifies ways in which you can incorporate extra activities into your lessons to challenge learners. It also suggests that a bank of shared resources which can be created on a shared area for the teaching team to access would be beneficial. The article poses a number of questions which should be considered when planning such as how can early finishers be rewarded and how can slower students be effectively supported during class.

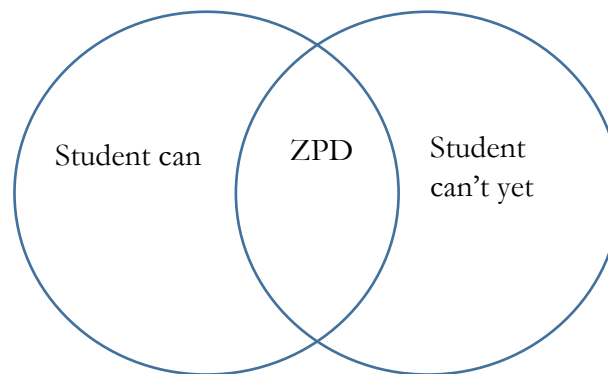
<p>http://teachertools.londongt.org/?page=</p> <p>Articles include:</p> <p>Differentiation in the Classroom</p> <p>Classroom Questioning Skills</p> <p>Whole Class Teaching Strategies</p>	<p>This website contains a collection of short articles on specific topics. The differentiation article suggests modifications that teachers can make to their lessons to encourage higher-level thinking processes such as those higher up in Blooms taxonomy. The classroom questioning skills article links Blooms taxonomy and Dalton categories of questions. It states that the use of open questions aids higher level thought processes. It also states that questions can be categorised according to Blooms taxonomy increasing their level of complexity. By incorporating a variety of questions at all levels helps to challenge students of all abilities. The teaching strategies article lists a range of strategies which can be deployed when students are asked to complete group work, independent study and has strategies to use to facilitate starter activities.</p>
<p>http://challenginglearners.wordpress.com/</p> <p>Filmed case studies:</p> <p>Series of case studies put together by LSIS and Acer.</p>	<p>This resource is an LSIS funded project which filmed examples of good practice of stretching and challenging students within the classroom in the FE sector.</p>
<p>Practical Approaches to Stretch and Challenge, Materials Pack, Joanne Mills, November 2013</p>	<p>This gives information on methods and activities to enhance motivation and achievement. It covers the difference between Mastery which are easy tasks typically involved with knowledge and comprehension; and Developmental tasks which are more difficult and highly dependent on prior learning. Again the link between stretching and challenging students and Blooms taxonomy is made. A list of paper free methods are given to stretch and challenge learners. This pack also covers the Socratic questioning technique and how to implement it. The pack includes a template for a one-minute proforma to give the tutor feedback from the learners on what they have learnt in a lesson. The pack includes methods to differentiate lessons for learners.</p>
<p>Petty G (1993). <i>Teaching Today</i>. 4th ed. Cheltenham: Nelson Thornes. Cha 14 p190 - 205</p>	<p>This chapter specifically concentrates on questioning. It discusses the usefulness of questioning to improve class participation and understanding and discusses the advantages and disadvantages of using questioning as a teaching method. It also identifies ways of varying the type of question used i.e using open or closed questions. The chapter also describes the Socrates questioning technique.</p>

<p>Reece, I and Walker, S (1992). <i>Teaching, training and learning</i>. 6th ed. Sunderland: Business Education Publishers. Chapter 3 p99 – p 151</p>	<p>This chapter looks at teaching strategies and learning styles. Of particular relevance is an assessment of different teaching strategies and the level of student participation and a summary of the top ten teaching strategies to benefit learners. There is also an evaluation of question and answer sessions and a categorisation of question types corresponding to their domain, i.e. whether they are cognitive or affective and what level they question is posed at (similar to Blooms Taxonomy with “knowledge” being at the most basic level and “evaluation” being a higher level question). This chapter also has a section on Evaluation of Teaching strategies, the understanding of which is crucial to the fulfilment of this project.</p>
<p>Minton D (1997). <i>Teaching Skills in Further & Adult Education</i>. 6th ed. Macmillan Press Ltd p181 - p186</p>	<p>This section particularly concentrates on the different levels of questioning, splitting the types of question into four sections, direct experience, describing the experience, comparing and interpreting the experience and thinking creatively to solve problems. We can draw parallels here with the use of Blooms Taxonomy when questioning. The chapter also discusses how teachers can handle questions and what they should do if a student arrives at the “wrong” answer, therefore looking at the idea of questioning from a slightly different angle from other texts,</p>
<p>Keeley-Browne L (2007). <i>Training to Teach in the Learning & Skills Sector</i>. 1st ed. Pearson Education p126 - p129</p>	<p>This section puts into table format strategies to extend learner thinking and to develop higher skills. There strategies include to invite the contributor to elaborate, to allow rehearsal of responses and to invite group responses. There is also a table which details strategies to involve learners in questioning.</p>

Much of the literature describes the philosophy behind stretch and challenge. A key principle is the interpretation of what Stretch and Challenge means. To stretch and challenge learners can relate to a whole classes way of working; it can also relate to how an individual can be stretched and challenged on an individual basis within the class. All classes have mixed ability students. Some students will find topics easier than others, some students will find the subject as a whole easier. All students need to be challenged to help progress their own learning journey and to reach their individual learning targets.

A key idea to support this was put forward by Lev Vygotsky within his notion of the zone of proximal development. This is where pupils are put in a position that enables them to move

beyond their existing knowledge and understanding. The following diagram illustrates Vygotsky's theory. The first circle highlights where the student's knowledge is now. The overlap "ZPD" is the Zone of Proximal Development; this is where when a student is given appropriate assistance they will achieve the task. The second circle is out of reach for the student at their current level however they may well progress to this point once they have been supported, stretched and challenged.



Source: Vygotsky 1978

A further principal which is cited frequently within the literature is that of how stretch and challenge links in with Blooms Taxonomy. Bloom identifies six levels learning:

1. Knowledge where students are asked to list, store or describe aspects of learning. This is the most basic level.
2. Comprehension where students are asked to explain, identify and organise concepts and learning principles.
3. Application where students are asked to use, calculate and practice what they have learned.
4. Analysis where students consider and compare what they have learned.
5. Synthesis where students are asked to create, design and invent concepts and principles related to their learning.
6. Evaluation where students are asked to judge and critically appraise their work and their learning. This is the most difficult level of questioning and really challenges the learners to think about what they have studied.

As a teacher it is important to identify where my learners sit on this scale, where they are as a group and where they are individually. The next step is to identify where I want the class to get to and I must be able to identify which activities will help them reach the next level of understanding, this in turn will stretch and challenge them.

The literature also mentions Socrates Questioning. This is where the teacher effectively shows ignorance of a topic in order to facilitate a discussion. It enables students to explore ideas in more depth. The technique promotes independent thinking in learners helping them to take ownership of their learning. Strategies for successfully deploying Socratic questioning include planning poignant questions within the lesson to provide a direction to dialogue. Teachers should follow up student's responses giving them instant feedback and continuing to ask probing questions, to develop learning points and understanding.

The term stretch and challenge acts as an umbrella, under which are a variety of methods to successfully stretch and challenge learners within lessons. It covers aspects such as differentiation, class interaction, questioning techniques, learning styles for a group of learners and teaching strategies to help each student be individually challenged on their path to learning.

The following Chapter of this report will be the formulation of a hypothesis based on the information gathered in the literature review.

Project Hypothesis

The hypothesis for this project is:

Stretching and Challenging learner's, results in better student engagement in classroom activities. This is an investigation into what stretch and challenge strategies work best for my students in a group.

I will select three stretch and challenge strategies to run through with my students within their lessons. These strategies will be tried out on the group as a whole. I will use various questioning techniques based on Blooms Taxonomy to monitor whether the students can reach the next level of understanding with a lesson.

The following section of this report will discuss how this investigation will be carried out and how the data will be collected.

Methodology

This action research project will be investigating and evaluating a range of stretch and challenge activities carried out on a group of twelve students to find out whether their level of participation increases in a lesson when these strategies are deployed. I will also identify the most effective stretch and challenge strategies for this group of students. Using Blooms taxonomy as a guide for my questioning strategy I will attempt to stretch and challenge these learners by using the upper echelons of Blooms taxonomy and monitor their progress over a lesson.

Research Steps:

1. Select three stretch and challenge strategies to try out in class.
2. Decide how to implement these strategies over the course of three lessons, one strategy per lesson.
3. Create a proforma to monitor and record the response of the learners to the strategy
4. Create a “control” lesson where no stretch and challenge activities are deployed.
5. Monitor the success of each strategy deployed by recording the responses on the proforma.
6. Using Blooms, construct suitable questions to ask the students which will stretch and challenge them to work at the next level of understanding.
7. Create a proforma to monitor and record the results of the questioning.
8. Analyse all the data gathered and draw up conclusions from the research.

It is anticipated that this research will be conducted over four lessons, one lesson will be used as the control. One strategy per lesson will be deployed so that it can be effectively monitored. The “control” lesson will be where no stretch and challenge activities will be conducted.

As this research involves deploying and monitoring the effectiveness of varying teaching strategies, there are no particular ethical or political issues. Specific student responses may be used when analysing the results but these will be referred to as Student 1, Student 2 etc. to maintain confidentiality, and no student names will be mentioned in the report. The students will not be told about the research so their responses are natural and their reactions to the activities are genuine. I do not need any permission from anyone to carry out this research as it will be done within the lesson and the strategies used will be put into the lesson plan.

Resources:

The main resources I will need include:

- Flipchart paper and pens for stretch and challenge activities
- Proformas to record observations
- Computers to allow students to research topics
- A list of possible stretch and challenge questions relevant to the topic.

Methodologies involved with gathering research:

1. Observations

The most important method I will use to assess the effectiveness of these strategies will be from observing the reactions of the students to the different stretch and challenge activities set. I will make time in my sessions to enable me to do this. The sessions will need to be planned carefully to ensure I allow myself recording time between each activity.

2. Proforma

The data will be recorded on a proforma, which ensures consistency of the data recorded and focuses the data collected to ensure it is relevant. It also will provide a record of what has taken place which enables me to reflect on the session and strategy more effectively. I will also record any extra observations straight after the lesson to ensure I do not forget anything vital.

3. Student feedback to assess knowledge

To ascertain the effectiveness of the stretch and challenge activities I will be depending on feedback from the students to see whether they have been stretched and challenged within the lesson and to assess the depth of understanding of the topics covered. This feedback will be verbal, and I will record the results after the session. The questions asked will be pre-planned before the session so that they reflect Blooms taxonomy.

4. Reflection

After each session I will allow myself 30 minutes to reflect on the lesson. I will evaluate the strengths and weaknesses of the session and write up my results.

The following table details how each of these four methodologies fits into action research:

Action research Stage	Methodology
Planning	I will incorporate into my lesson plan the stretch and challenge strategies I want to investigate for that lesson. I will also produce a list of questions on the topic studied in line with Blooms Taxonomy, so they are ready to use in the lesson. I will talk to members of my teaching team who know the group to find out about the students and what level they are working towards i.e. are their assignments coming out at passes, merits or distinctions. This will help me assess the students effectively.
Acting	I will deploy the strategies I have planned for during the lessons and monitor and record how effective they are.
Observing	I will observe each strategy and record the results on a proforma. I will also ask for feedback from the students to ascertain the level of learning they have achieved during the lesson.
Reflecting	At the end of each lesson I will reflect on my practice. I will evaluate how useful the strategies were in stretching and challenging the learners as a group. I will assess each strategy for its effectiveness and ease of use. I will write up the results in a report. I will reflect on these results and identify areas where my practice has improved and where it could be improved further.

These methodologies will benefit the research project because they will give structure to my evaluation and focus to my lessons. All the strategies will be assessed against the same criteria to ensure consistency. The use of proformas will focus my observations on stretching and challenging learners, so I do not get sidetracked. The methodologies are fairly simple to carry out during a class. They can be easily analysed and written up into the project in a clear and concise way.

Data Collection

The data will be collected during the lessons on a proforma which is designed to enable me to record the results quickly and easily. The data collected will be qualitative, based on proformas, observations and reflections. The research will focus on a group of twelve Level 3 Construction Management students who will be completing a course on Planning Procedures. I do not teach these students in any other lessons and when the research is carried out I will have not met the group of students before, this means I have no preconceptions of group dynamics.

Minimising the Risk of Bias

I will minimise the risk of bias in this investigation by:

- Incorporating the strategies into my lesson plans, so that they form part of a normal lesson.
- By having no preconceptions about the group, means that my own feelings towards particular students are minimised as I have not met them before.
- Keeping the investigation low key so that the lessons are conducted as “normally” as possible.
- Recording of results will happen during and straight after the lesson so that they are accurately recorded.
- A control lesson will be monitored where no stretch and challenge strategies are deployed to act as a control.
- Results will be recorded in a consistent and systematic way to ensure the strategies are directly comparable.

It is difficult to eliminate bias completely from this investigation. The main areas where bias could be introduced is that I am only testing out these strategies on one group of learners, due to only teaching one group of learners. Ideally I should try these strategies out on different groups of learners studying different subjects at different levels to get a broader idea of the effectiveness of the strategy. Also, I am the only person conducting the research, therefore my opinions may well effect the results as much of the information gathered is qualitative. Having a second person in the class to observe and make observations would be a way of reducing this form of bias.

Recording and Monitoring Results

The results for each strategy will be recorded on a proforma. The proforma will ask the following questions to help evaluate the group strategy:

1. Are any resources needed to implement the strategy?
2. When during the lesson was the strategy introduced?
3. How long was allowed for the students to complete the strategy?
4. How were the students organised?
5. Did the students understand what they were supposed to do immediately or did they need further explanation?
6. How long did the activity actually take?
7. Were there any distractions? If so what were they?
8. Were any questions asked during the task? What were they?
9. How comfortable were the learners with the tasks?
10. Score the level of engagement by the students in the lesson

Score	Meaning
1	All learners were not engaged with the lesson
2	Most learners were not engaged with most of the lesson
3	Half the learners were engaged with the lesson for at least half the time
4	Most learners were engaged with the lesson for most of the time
5	All learners engaged with the lesson all of the time

11. What questioning strategy did you use to check the learners level of understanding?
12. Score the level of learning that has taken place.

Score	Level of learning
1	All learners could not answer any of the questions asked at the end of the lesson.
2	Less than half of the learners got answered half of the questions correctly.
3	Half the learners answered half the questions correctly
4	Most of the learners answered most of the questions correctly.
5	All learners answered all of the questions correctly

13. What was the feedback from the students?

Student Feedback Form:

<i>Rate your level of knowledge on the topic before the session where 1 is no knowledge and 5 is expert knowledge</i>	1	2	3	4	5
<i>Has your knowledge improved? 1 is not at all, 5 indicates you have understood the whole of the lesson.</i>					
<i>Did you enjoy the activity? 1 I didn't enjoy it, 5 I enjoyed it a lot</i>					
<i>Was the pace of the lesson suitable to the topic? 1 unsuitable, 5 very suitable.</i>					

What did you most enjoy about today's lesson?

What do you think needs to improve?

The Stretch and Challenge Strategies to be Investigated

Strategy 1: Snowball

Learners will work in pairs to start with. They will produce a set of notes from research. At a signal after a while they are put with another group to compare notes, collate their findings or negotiate their task finding in some other way. At another signal, pairs join into fours and repeat the exercise. If desired at another signal, fours join to become eights and repeat.

This strategy will be applied in a lesson on planning legislation where students will be asked to work in pairs to create a fact sheet of key points covered by a particular piece of legislation. Each group will have a different piece of legislation to research. They will then have to share information with the other groups, so will form fours and then sixes etc. The aim being that each student has a complete set of notes on planning legislation at the end of the lesson and that they understand it as they have taught each other the main points. The level of their understanding will be tested with a question and answer session at the end of the lesson to assess what they have learned.

Strategy 2: Learning as Teachers

This is where groups are set up to design interesting ways to deliver various subject based topics selecting effective ways to resource, research and present their chosen topic. They are given time to produce a variety of teaching packs, including videos, booklets and games which they can present before a class.

This strategy will be used to help students learn about material planning considerations. Each group will be asked to research a specific planning consideration such as ecology or the historic environment and asked to teach the main points to the class. The level of their understanding will be tested with a question and answer session at the end of the lesson to assess what they have learned.

Strategy 3: Allocation of Specific Roles

Learners are allocated specific roles within a group. This strategy will be used where students are asked to study a development case study. They will be split into groups of three, one learner in the group will take the role of the developer, one of the planning officer and one of a resident. They will have to think about a particular development from each point of view, and argue a case for or against the development. It is up to the planning officer to decide which person has the strongest argument as to whether the development gets planning permission. The level of their understanding will be tested with a question and answer session at the end of the lesson to assess what they have learned.

I have chosen these particular strategies because they fit in well with the type of topics the students will be covering. They will fit suitably into the lesson plan and are good strategies for a group of twelve students. The exercises won't take up the whole lesson which gives me time to structure the lesson with other activities and gives time at the end of the lesson for me to assess the students learning and ask for feedback from the students on what they have covered. These strategies are also straightforward, do not take up too much preparation time and do not use complicated resources. I have also selected them because they are quite different strategies and will test the student's presentation skills, their analytical skills and their communication skills. I am hoping the students will enjoy completing them.

Data Analysis

This section will use a variety of methods to display the data. Each strategy will be described and analysed individually. The qualitative data will be displayed as a narrative. The quantitative data will be displayed as charts. A summary table of all the data collected can be found at the end of this section.

Lesson 1: Control – No Stretch and Challenge Activity was Implemented

The control class was completed with a year one group of students. The aim of the lesson was to cover the main points of planning legislation in the UK. A PowerPoint presentation was given covering the main points of each piece of legislation. Students had to write notes on the slides. A short written test was completed at the end of the lesson to check learning. The students had to peer assess each other's answers. This lesson was designed to be a less "dynamic" lesson, taught in a more traditional style, with some input from the learners during the question and answer session.

Strengths of this lesson:

- The delivery was complete, the learners were told about all the relevant information they needed for the first part of their assignment.
- The lesson had a good structure as the PowerPoint meant that it remained focused.
- The lesson was well timed with a short introductory exercise, delivery and time for feedback at the end.
- The learners were comfortable with the task because this was how they were taught in school, they all made notes on the slides.
- Students all got at least four out of ten questions correct which shows that some learning had taken place during the class.
- Peer assessing is a good method to help students learn off each other.

Weaknesses of this lesson:

- There was minimal learner interaction, so some of the learners who learned kinesthetically switched off during this session.
- Most of the energy throughout the session came from me, not the students.
- Only six of the twelve students actively participated in the question and answer session. When students were asked by name ones who didn't put up their hand found it difficult to answer.

- The pace of the lesson at times was slow.
- Not all learners achieved an adequate level of learning.

Student feedback on the session included that the learners would have liked more activities included in the lesson to break it up. A comment was made by a particular learner that “legislation is hard”. The most positive comments about the lesson was about the peer marking which the students listed as their favorite part of the lesson. For engagement I scored this lesson a three. The learners were well behaved, made notes and a few asked relevant questions on the information they were given. The score I gave for the level of learning which the students reached was a two. Although from observations their level of engagement was adequate, it was clear from the written test that less than half of the class had absorbed the teaching which was being delivered to them. The results from the students feedback form were:

	1	2	3	4	5
<i>Rate your level of knowledge on the topic before the session where 1 is no knowledge and 5 is expert knowledge</i>	12				
<i>Has your knowledge improved? 1 is not at all, 5 indicates you have understood the whole of the lesson.</i>		5	7		
<i>Did you enjoy the activity? 1 I didn't enjoy it, 5 I enjoyed it a lot</i>		5	7		
<i>Was the pace of the lesson suitable to the topic? 1 unsuitable, 5 very suitable.</i>				11	1

Lesson 2: Snowball

This activity was completed with a year two group of students. The aim of the lesson was to cover the main points of planning legislation in the UK, as was the control lesson. The lesson started with a warm up activity whilst the students waited for their laptops to open. The objectives of the lesson were explained to the students and written on the whiteboard. No PowerPoint presentation was delivered. I described what was required of the students fifteen minutes into the lesson (after the register had been taken, the starter activity had been completed and the latecomers had arrived). I split the students into six groups of two and gave them each a

piece of legislation to research and produce a factsheet on. I then explained that after twenty minutes they would then join other groups to copy down the new information.

Proforma Results:

- 1 Are any resources needed to implement the strategy?
Computers
- 2 When during the lesson was the strategy introduced?
15 minutes after the start of the lesson
- 3 How long was allowed for the students to complete the strategy?
20 minutes for the initial research, 30 minutes for the “Snowball” part when they were swapping information.
- 4 How were the students organised?
Into six groups of two, they worked with their partners.
- 5 Did the students understand what they were supposed to do immediately or did they need further explanation?
They understood immediately to begin with, but needed direction as to which pair they would get information off when they swapped round.
- 6 How long did the activity actually take?
55 minutes in total
- 7 Were all students actively engaged throughout the entire exercise?
A majority were. Some needed encouragement to stay on task when researching.
- 8 Were there any distractions? If so what were they?
There was some evidence of internet surfing which was not relevant to the topic, but all groups of learners produced a factsheet at the end of the time.
- 9 Were any questions asked during the task? What were they?
Students needed help on how to search for key facts on legislation without reading through the actual statute
- 10 How comfortable were the learners with the task?
They settled down to it quickly. Some of them didn't like to move from their seats. They found researching legislation hard, but they all got the relevant information down off each other and all the main points were picked up.
- 11 Score the level of engagement by the students in the lesson
Engagement score of 4. Most of the learners were engaged when they were using the internet correctly. When working in pairs some had a tendency to let their partners do

most of the work. As mentioned before some students were reluctant to move out of their seats.

12 What questioning strategy did you use to check the learners level of understanding?

I used twelve pre-prepared questions, two from each level of Blooms. I did it verbally and selected random names from the register to answer. If someone got stuck I asked others to help the out.

13 Score the level of learning that has taken place.

I would score the lesson a 4. The students answered all of the questions between them, they helped each other out when the questions got harder. Though the quieter students did get shouted down but the more confident ones.

14 What was the feedback from the students?

	1	2	3	4	5
<i>Rate your level of knowledge on the topic before the session where 1 is no knowledge and 5 is expert knowledge</i>	11	1			
<i>Has your knowledge improved? 1 is not at all, 5 indicates you have understood the whole of the lesson.</i>			3	8	1
<i>Did you enjoy the activity? 1 I didn't enjoy it, 5 I enjoyed it a lot</i>		3	7	2	
<i>Was the pace of the lesson suitable to the topic? 1 unsuitable, 5 very suitable.</i>		3	9		

The comments from the students included that some enjoyed the Snowball part of the session. Some would have liked a handout to back up their learning, and again a comment was made that legislation was a hard topic and they would have liked to have spent more time on it. Though a presentation summarising the lesson was available on the college website.

Strategy 2: Learners as Teachers

This activity was completed with a year two group of students. The aim of the lesson was to enable the learners to have an in-depth understanding of material planning considerations when making a planning application. The lesson started with a warm up activity whilst the students waited for their laptops to open. The objectives of the lesson where explained to the students and written on the whiteboard. No PowerPoint presentation was delivered. I described what

was required of the students ten minutes into the lesson (after the register had been taken, the starter activity had been completed and the latecomers had arrived). I split the students into four groups of three students. Each group was to research and prepare a presentation to give to the rest of the class on their particular material planning consideration. As they listened to each other's presentation they were to formulate two questions each and know the answers to test the other members of the class.

Proforma Results:

- 1 Are any resources needed to implement the strategy?
Flipchart paper and pens, computers
- 2 When during the lesson was the strategy introduced?
10 minutes into the lesson
- 3 How long was allowed for the students to complete the strategy?
45 minutes for the presentation preparation and 20 minutes for each groups presentations
- 4 How were the students organised?
The students were organised into four groups of three
- 5 Did the students understand what they were supposed to do immediately or did they need further explanation?
Student got on with researching the task immediately
- 6 How long did the activity actually take?
Not all groups could complete their presentations within the lesson time, so one group had to present in the following week
- 7 Were all students actively engaged throughout the entire exercise?
In the research part all the students got on well. However with the presentations it was sometimes difficult to quieten the other groups down so they could listen to each other. Also only one person from each group presented, the others in the group were more disengaged.
- 8 Were there any distractions? If so what were they?
The students did find giving presentations difficult particularly in the short time allowed during the lesson.
- 9 Were any questions asked during the task? What were they?
Questions on specific research tasks came from all the groups as they weren't sure what information they should include.
- 10 How comfortable were the learners with the task given?

I felt this task really stretched all the learners as they had to research a topic in a short amount of time and then teach it to the rest of the class. They particular found the presentation part difficult. Unfortunately only one person in the group presented, which was usually the most confident member of the group as I let them chose who was going to be the presenter.

11 Score the level of engagement by the students in the lesson

I would score the engagement I this lesson as a 5. All students were actively involved from the beginning. They all contributed questions to the question session at the end.

12 What questioning strategy did you use to check the learners level of understanding?

The students were asked to write down two questions with the answers after each group completed their presentation. They then had to ask their questions to the rest of the group as the last task of the session. Although this method of questioning did not follow Blooms, so could be said to be inconsistent with the previous strategy's method, it did reach a different level of student engagement and ensured that the students listened to what each other was saying.

13 Score the level of learning that has taken place.

I would score this lesson as a 4. Although it was harder to gauge as I didn't use the Blooms questioning strategy, allowing the students to ask their own questions stretched them as they had to actively listen to each other and remember the answers.

14 What was the feedback from the students?

	1	2	3	4	5
<i>Rate your level of knowledge on the topic before the session where 1 is no knowledge and 5 is expert knowledge</i>		12			
<i>Has your knowledge improved? 1 is not at all, 5 indicates you have understood the whole of the lesson.</i>				8	4
<i>Did you enjoy the activity? 1 I didn't enjoy it, 5 I enjoyed it a lot</i>			3	9	
<i>Was the pace of the lesson suitable to the topic? 1 unsuitable, 5 very suitable.</i>				4	8

Strategy 3: Allocation of Specific Roles

This activity was completed with a year two group of students. The aim of the lesson was to enable the learners to understand the different perspectives of determination of a planning application from the developer, local authority and neighbours point of view. The lesson started with a warm up activity whilst the students waited for their laptops to open. The objectives of the lesson were explained to the students and written on the whiteboard. No PowerPoint presentation was delivered. I described what was required of the students ten minutes into the lesson (after the register had been taken, the starter activity had been completed and the latecomers had arrived). I split the students into four groups of three students and gave each group a different planning case study. Learners were allocated specific roles within a group. The resident and the developer have to construct a case for and against the development. The Planning officer has to decide who has the strongest argument and whether the development gets planning permission or not.

Proforma Results:

- 1 Are any resources needed to implement the strategy?
Yes, the students needed appropriate case studies to base their planning arguments on, and computers for research.
- 2 When during the lesson was the strategy introduced?
20 minutes into the lesson, after we recapped on what was covered last week.
- 3 How long was allowed for the students to complete the strategy?
30 minutes to prepare the arguments and 5 minutes per group to explain the arguments and the planner's decision to the class.
- 4 How were the students organised?
In to four groups of three.
- 5 Did the students understand what they were supposed to do immediately or did they need further explanation?
Quite a bit of further explanation was needed on a group by group basis to ensure the students were on track with their arguments.
- 6 How long did the activity actually take?
The entire activity took fifty minutes plus time for questions and feedback at the end.
- 7 Were all students actively engaged throughout the entire exercise?
The groups were of mixed ability. Some of the students found it hard to see a development from different perspectives and they struggled with the idea of role play,

whilst others were very much engaged during the whole session, a mixed picture emerged from this activity.

8 Were there any distractions? If so what were they?

No, all the students participated well in this session.

9 Were any questions asked during the task? What were they?

The questions asked were mainly about the different roles and how they should formulate their arguments.

10 How comfortable were the learners with the task?

Learner reactions were mixed. Some were not very happy with the idea of role play, whilst others thrived at it.

11 Score the level of engagement by the students in the lesson.

I would give a score of 3.5 for this lesson. Those learners who enjoyed role playing and found seeing things from different points of view easy engaged well. This activity is suited to a specific type of learner, more so than the other ones.

12 What questioning strategy did you use to check the learners level of understanding?

No questioning was used in this lesson due to lack of time. The learners were assessed on the strength of the arguments they put forward in her roles.

13 Score the level of learning that has taken place.

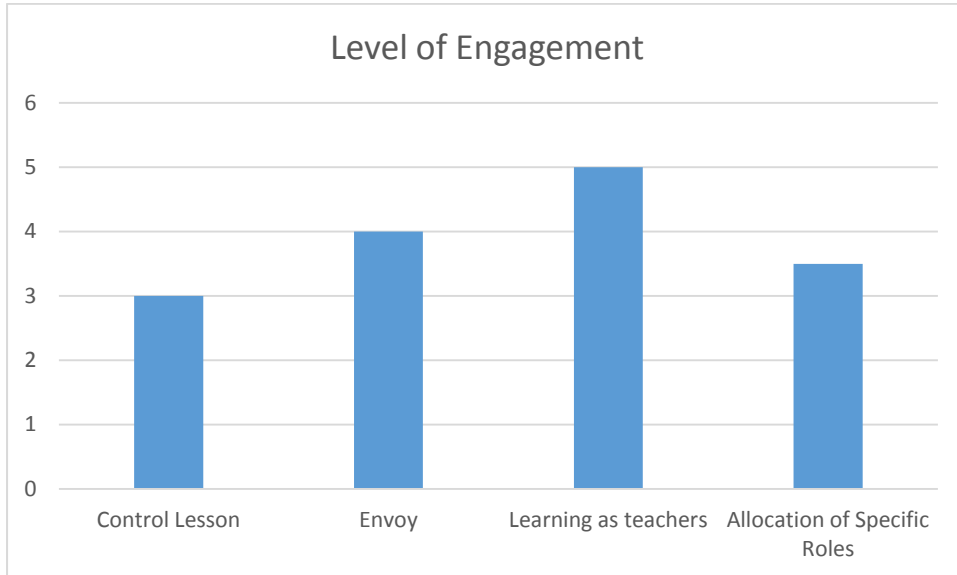
I would score this lesson a 4. Most of the learners understood the different roles of the parties involved in the planning system at the end of the lesson. This was evidenced in the role play witnessed.

14 What was the feedback from the students?

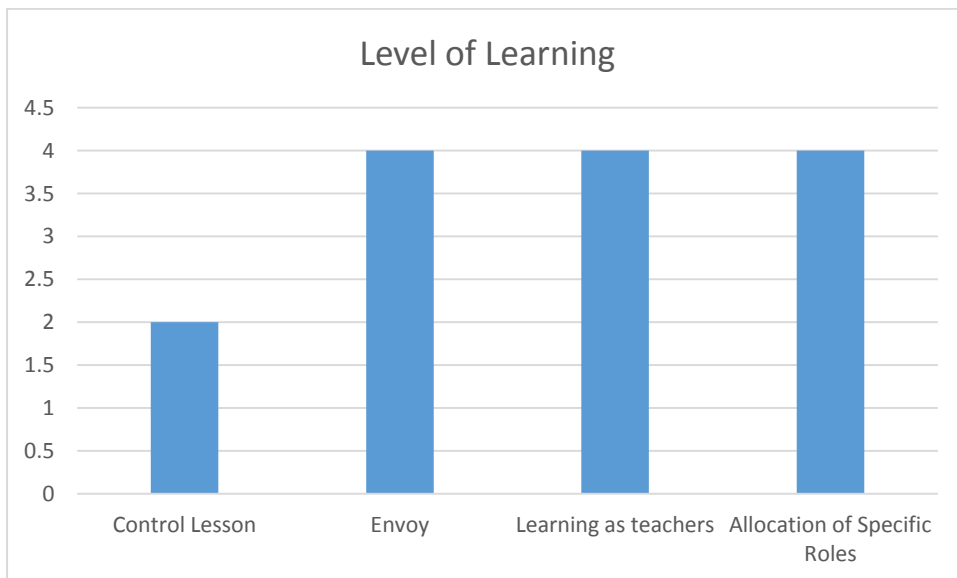
	1	2	3	4	5
<i>Rate your level of knowledge on the topic before the session where 1 is no knowledge and 5 is expert knowledge</i>	9	3			
<i>Has your knowledge improved? 1 is not at all, 5 indicates you have understood the whole of the lesson.</i>			3	6	3
<i>Did you enjoy the activity? 1 I didn't enjoy it, 5 I enjoyed it a lot</i>		3		7	2
<i>Was the pace of the lesson suitable to the topic? 1 unsuitable, 5 very suitable.</i>		2	8	2	

Quantitative Results Summary

The following selection of charts summarises the quantitative data found during this action research project.

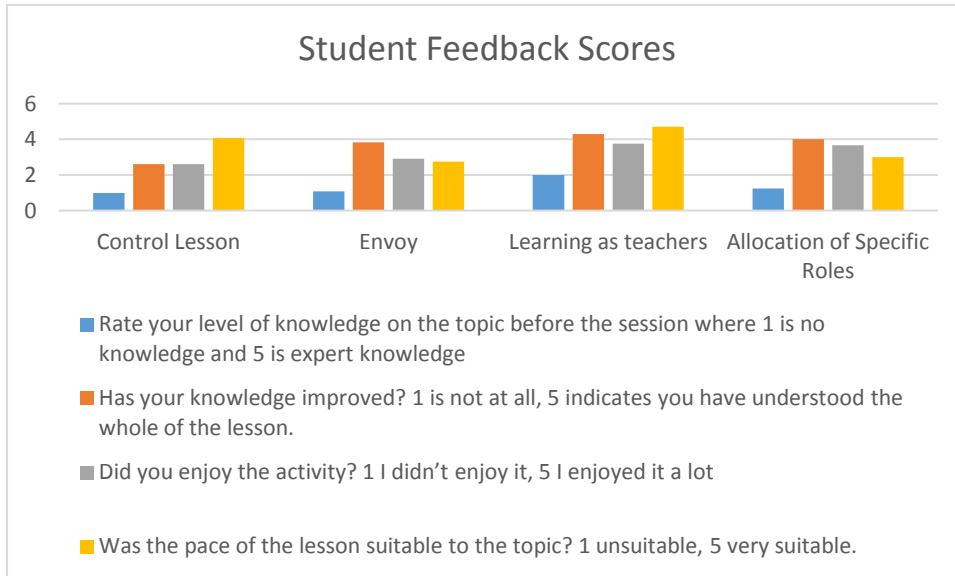


The above chart identifies the average scores I gave to the level of engagement which each stretch and challenge activity resulted in. The activity which scored the highest level of engagement from the learners was Learning as Teachers. All activities had a higher level of engagement than the control lesson.



The above chart identifies the average scores I gave to the level of learning which each stretch and challenge activity resulted in. All the stretch and challenge activities resulted in the same level of learning. The level of learning is a hard assessment to make, particularly as my assessment methods were inconsistent due to the time allocation and the variety of activities

which I wanted to engage the students in. Assessment can be done effectively using peer assessment method, which was unsuitable for all stretch and challenge activities. All activities had a higher level of engagement than the control lesson.



The above graph summarises the results from the student feedback forms. It shows that students had very little previous knowledge when they started the lesson on the topics which were to be covered. In all lessons the students said that their knowledge improved. The most effective strategy for improving student knowledge applicable to this group of learners was the Learning as Teachers strategy. The most enjoyable lesson for the group was also the Learning as Teachers strategy, and again the pace of the lesson was judged to be better than the other strategies in the Learning as Teachers lesson.

The following section of this report will contain a summary table so all results can be compared. Conclusions will be drawn from the research and recommendations for future research will be made.

Summary and Conclusions

Below is a table summarising the results of this action research project:

	Control	Snowball	Learners as Teachers	Allocation of Roles
Any resources needed	No	Computers	Flipchart and pens, computers	Case studies, computers
When was strategy introduced during lesson	no strategy	15 mins after start	10 mins after start	20 mins after start
Time allocated for strategy	N/A	50 mins	105 mins	50 mins
Organisation of students	sat individually on tables	6 groups of 2	4 groups of 3	4 groups of 3
Students understood task	Yes	Yes, needed direction to move	Yes	Yes, but direction needed to form arguments
How long did task actually take	Whole lesson	55 mins	Whole lesson	50 mins
Students engaged entire time?	No	majority were	majority were	Yes, but some found task hard and disengaged for short time
Any distractions	No	Internet surfing	short timing	No
Any questions asked	No	mainly on research	mainly on research	how to formulate arguments
Comfort level when completing task	High	Medium	Medium - Low	Medium to Low
Engagement score	3	4	5	4
Questioning strategy to assess learning	written answers, peer assessing	Used Blooms to set different levels of questions	Peer questioning	No questioning due to lack of time
Learning score	2	4	4	4
Average feedback score	2.57	2.65	3.69	2.98

What have I learnt from this project?

My results show that with this particular group of second year students the best stretch and challenge activity was the “Learning as Teachers” strategy. This worked really well, with a high level of engagement, good student feedback and a high level of learning. From a teaching point of view, it did take quite a lot of classroom management. It used basic resources which meant it

was easy to set up. The only drawback with this activity was timings. We did not have time to hear the presentation from the last group, so this was the main learning point for me; get the timings right! The remaining two strategies were effective in different ways, though were less effective overall than the Learning as Teachers strategy. Both strategies had drawbacks.

The Allocation of Roles strategy used slightly more complicated resources as all students had to be given suitable case studies to work from. The students were mostly out of their comfort zone for this activity as some of them didn't like the idea of role playing. Role plays are a good device to use to encourage empathy and understand issues but it is not an activity suited to all students and some disengaged quite quickly, they had to be put back on track. It was also difficult for me to effectively assess learning via the questioning method as we ran out of time in class to complete it. However, it was evident that learning has taken place through the quality of the arguments put forward in the class.

Snowballing got the lowest score out of the three strategies. This could however be because the topics covered were the most difficult. Teaching legislation can be very dry for the students, so this lesson was always going to be difficult. It still had a greater level of engagement than the control lesson and student feedback was mostly positive. The strategy was easy to deploy and all the learners had a full set of notes at the end of the session. They leaned off each other and the energy in the room was coming mostly from them and not me. The learners did get distracted by the internet, and some didn't want to move seats when I asked.

Overall, I learned that stretch and challenge strategies in the classroom did improve learner engagement overall. The strategies worked in different ways on the group and not all strategies will suit one particular group of students. It is however important to vary strategies so that learners continue to be engaged throughout the course. Different learners found different strategies challenging, showing that by using a combination all learners were stretched and challenged throughout the course.

What Improvements could have been made to this project?

The constraints of this project was time to carry out adequate research and only having the use of one teaching group in one particular subject to test the strategies on. The following is a list of improvements which could have been made if I had access to other teaching groups and if I had more time to carry out research.

- I could have used Bloom's taxonomy more effectively and consistently across all the strategies. I only actively used it on one strategy, so assessing the level of learning which

had taken place was difficult to quantify. More thought should have been given to assessing the level of learning.

- To robustly test these strategies further, I should have used them on a wider number of students and adapted them for the use at all levels, then monitored the results.
- It was difficult to record results, monitor students, and run a class at the same time, so perhaps more thought should have been given to the style of the proforma or the way the results were recorded. Videoing a lesson may be the answer here, but there are confidentiality issues surrounding this.
- In some cases my timings were slightly out, so I should be stricter with timings for activities so that all planned activities are completed during the lesson.
- A gap in the research is that I didn't consciously use Socratic questioning. This method may have been more effective to assess learner's level of learning.

Recommendations for further research

The main recommendations are:

- To test these strategies on a wider range of student groups, to assess levels of learning and participation. This will help to identify which strategies are most effective across different levels.
- To test more different types of strategies on groups of students. There are lots of stretch and challenge strategies which have been devised, it would be good to develop a portfolio of strategies which have been tried and tested.
- To ask other teachers to use the strategies in their classes so that results can be compared across a department and best practice can be discussed.
- This project has concentrated on how to stretch and challenge learners as a group. A topic for further research could be to investigate how to stretch and challenge learners individually within a group. This could be done by identifying different ability learners, deploying a strategy and then testing them with Blooms questioning at the end to see if they can get to the next level of their individual understanding.

Reflection

I enjoyed carrying out this research project. It allowed me to think about and test theories and then apply the theory to practical application in the classroom. It has also added to my teaching toolbox as I now have three robust strategies for stretching and challenging learners which I am confident will work and which I can use effectively. This project has been effective as a piece of action research because it clearly shows all four stages of action research. I kept it as a tight investigation focusing on specific strategies which helped focus on the research involved.

The planning part of action research was implemented when I completed my lesson plans. I planned how each strategy was going to be incorporated into my lesson. I allocated timings to this and broke down tasks so that learners would be able to complete them. The acting part of action research was implemented when I asked the students to complete the strategies I had planned for them. I then completed the observation part of the research by observing the students as they completed the strategies and recording the results. I then collated my results, analysed them and this gave me time to reflect on how the students responded to the different strategies. By displaying the results in charts and on tables it allowed me to actively compare the strategies so I could see the strengths and weaknesses of each. This again aided my reflection of the action research project.

I was very good at planning for these strategies and understanding how to use them within the class. I also liked the way I linked them to the subject matter. I picked the correct strategies which suited Planning Procedure classes. I directed the students well and they knew how to carry out each task in class. The students did come out of each class with improved knowledge which hopefully they will successfully incorporate into their assignments.

My main areas of weakness were estimating how long an activity would take, it usually took longer than I expected. I also need to work on my classroom management to ensure students do not get distracted by the internet and that they spend all their time researching the relevant topics. I could probably have made my proforma simpler to fill in and thought more about how to collect quantitative data which was more reliable than my own judgment. Bringing an observer into the class to act as a second opinion or videoing the sessions would have helped with this.

To improve my skills I would like to practice these strategies more frequently on different classes. I also feel that I need to sharpen my questioning skills to the students and formulate other ways of quickly assessing whether learning has taken place. On our training inset days I will pick the training on offer which will supplement what I have learned whilst completing this

action research project. Overall I feel more confident will deploying stretch and challenge strategies in classes. I can see from my action research project results that these strategies do work well and they improve student engagement and levels of learning in my sessions.

References

Reference
<p>http://newteachers.tes.co.uk Article: How to Stretch and Challenge your students; Mike Gershon, June 2013</p>
<p>http://joannemilesconsulting.wordpress.com Article: Differentiation without extra handouts: tips for stretching and challenging learners; Joanne Miles, August 2012</p>
<p>http://joannemilesconsulting.wordpress.com Article: Managing Pace in Lessons: some reflections and suggestions; Joanne Miles, January 2013</p>
<p>http://joannemilesconsulting.wordpress.com Article: Planning for stretch and challenge:12 practical ways to enhance your scheme of work July 2013</p>
<p>http://teachertools.londongt.org/?page= Articles include: Differentiation in the Classroom Classroom Questioning Skills Whole Class Teaching Strategies</p>
<p>http://challenginglearners.wordpress.com/Filmed case studies: Series of case studies put together by LSIS and Acer.</p>
<p>Practical Approaches to Stretch and Challenge, Materials Pack, Joanne Mills, November 2013</p>
<p>Petty G (1993). <i>Teaching Today</i>. 4th ed. Cheltenham: Nelson Thornes. Cha 14 p190 - 205</p>
<p>Reece, I and Walker, S (1992). <i>Teaching, training and learning</i>. 6th ed. Sunderland: Business Education Publishers. Chapter 3 p99 – p 151</p>
<p>Minton D (1997). <i>Teaching Skills in Further & Adult Education</i>. 6th ed. Macmillan Press Ltd p181 - p186</p>
<p>Keeley-Browne L (2007). <i>Training to Teach in the Learning & Skills Sector</i>. 1st ed. Pearson Education p126 - p129</p>
<p>https://www.guardian.co.uk/education/2003/feb/18/futhereducation.uk4</p>