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Foundation Level Economics Reflections on Teaching and Learning

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Abstract
This paper shows how the evolutionary nature of the authors learning has facilitated the development of a teaching style which is adaptable and flexible enough to meet the learning needs of international students who study Economics at the Foundation Level. In this case, the author takes into account not only the students ability to write, speak and listen in English but also facilitates a teaching practice which helps international students to embrace an educational tradition which is based on the development of creative and critical thinking. The findings of this paper also suggest the importance of formative tests and assessment at an interdisciplinary level and not only for Economics as a means to facilitate student's reflection on their own learning and how this may help students to develop their learning skills. However, it is also important that teachers use teaching methods which stimulates the student's higher level cognitive powers and which facilitates a process by which students become active learners rather than remaining as passive learners.
Keywords: Education, Economics, Learning, Developing Countries

1. Introduction

The aim of this paper will be to critically reflect on personal aspects of higher education. On the other hand the objectives of the paper will be to critically engage with ideas about higher education from a personal perspective, literature perspective and a peer perspective. Both of the objectives of this paper will seek to engage with the four themes associated with higher education. These include diversity, equality and educational values, theorizing learning, teaching and assessment, disciplinarity and the relationship between research and teaching. The aims and the objectives of this paper will be resolved by following a tiered strategy. The first tier will reflect on the authors own learning experience. The second tier will involve an assessment of the personal learning of students. The third tier will involve peer-peer assessment of the teaching practice of others. The final tier will involve an assessment of assessment practice in another subject.

The context of the paper is with regards to the teaching of pre-university Foundation level Economics to international students. These include students from Eastern Europe, Russia, Brazil, India, China, Turkey, South America, North America and Africa. Typically, these students vary in their ability to speak, write and to read English. It is the extent to which a student is able to speak, write and read English which will determine how successful the student will be at studying Foundation level Economics. Economics can be a very technical and theoretical subject to study at any level. While it is a difficult subject for even for students who are articulate in speaking, writing and reading English it is even more difficult for students who even have an IELTS score of 8 let alone for students who have a score below this. The IELTS is an internationally recognized test of English reading, writing and speaking proficiency. Given the language difficulty experienced by international students it is important to establish a teaching methodology which will prove to be successful at teaching Economics at Foundation level. However, the language difficulty of international students is not the only factor which needs to be considered in assessing the teaching of Economics at Foundation Level. Another important factor which needs to be considered is that students from different countries will have been taught on the basis of different teaching traditions. For example, students from China have been taught to learn by rote learning and so lack the ability to be creative thinkers or to think critically, Ramesh (2012). Therefore, teachers will not only have to adapt their teaching practice to cater for differences in students English proficiency but also to help students embrace a teaching tradition which facilitates creative and critical thinking. This is particularly important because the numbers of international students from emerging economies, such as Brazil, China, India and Turkey, studying at British, European and American universities over the coming decades is likely to increase significantly. This will be due to an expansion in the size of the wealthy middle classes who will have the financial resources to send their children abroad to study. The demand for an overseas education will be due either because the children of the wealthy cannot meet the admissions requirements of the educational institutions of their countries or these educational institutions may not have the capacity to admit more students.

2. Reflections on Learning

Brookfield (1995) suggests that it is important for teachers to be able to critically reflect on their learning

experiences so that the practice of teaching can be adjusted to account for the 'blockages and anxieties' which are often experienced by students learning a new and potentially difficult subject. The imposition of a personal perspective on one's teaching perspective is taken one step further by Skelton (2000). The latter takes the view that it is necessary to 'encourage men to reflect upon the relationship between masculine identity and teaching practice.' While Skelton (2000) draws on the link between the masculine identity and teaching practice it is possible to broaden this relationship to suggest that teaching practice is strongly correlated with the educational identity of the teaching practioner. The very notion of educational identity suggests that it is formed on the basis of the educational experiences of the educational practioner. So the learning experiences of the educational practioner will have profound implications for his/her teaching practice. Therefore, it is important to establish and understand the formation and the origins of the educational practioners educational experience.

At a personal level learning has never been easy for me. This has been due to a number of factors. Firstly, I was born in Ceylon and came to the UK at the age of 3. So I had to learn English from the beginning. Secondly, I did not enter the school system until I was 5 years old. I did not go to nursery school and so missed out on early educational stimulation which my peers at Infants school did experience. Thirdly, by nature I am easy going and like to have fun. In childhood I would never study. On the other hand my elder brother was always studious and academically minded even from a young age. Indeed, it was even the case that by the age of 10 I could not tell the time, tie my shoelaces or even tell my right from my left. However, I enjoyed reading short stories which were either historical and/or fictional in context. But this was between doing silly things such as climbing trees and planting my dad's tomato plants upside down. The contrast between my behaviour and my brothers behaviour, therefore presented my parents with a challenge. My situation seemed to be dire to both my parents, but perhaps even more to my father who was a teacher by training.

The big change in my learning took place when I moved to secondary school to study at the age of 11. At that time, I and another 262 students entered William Forster Secondary School in North London. We were divided into ten classes. The composition of the children included immigrant children born in many parts of the world as well as children born in the UK. Moreover, we were the children of working class parents, teachers, seamstresses, shop workers, cleaners, railway workers and shop keepers. But the 70's represented a time in which higher education was not seen as a natural destination for the children of the working class. However, government's attitude towards widening participation in higher education changed with the recommendations of successive committees which reported on opening up higher education to the wider population. The 2004 Schwartz Report recommended higher educational institutions to minimize the barriers to applicants. On the other hand Greenbank (2006) suggests that it was the groups in society who would gain most by widening participation in higher education who had the least input into the formulation of policy. Therefore, the various policy initiatives which have originated over the years such as Robbins in 1963, Dearing in 1997, the 'Future of Higher Education' in 2003 and the Higher Education Act of 2004 may not necessarily reflect the needs of those at which educational reform is intended to benefit, Greenbank (2006).

By the end of the 1st year I came top of my class and was presented, along with other performers, with a merit award by Sir Douglas Bader, a WW2 RAF decorated veteran. Perhaps the change in my learning took place due to more specialized teaching and the availability of different subjects. Furthermore, it was often the case that between the ages of 11 and 18, I would often study until 2am in the morning. It was between the ages of 11 to 18 that I decided to follow my brother into studying Medicine. However, this would turn out to be a mistake. For my 'A' levels I studied Biology, Chemistry, Physics and Pure and Applied Mathematics. But I was turned down by the 5 medical schools I applied to. As a compromise I went to study Biological Chemistry at the University of Essex. But after two years I found the course boring and dropped out. I then went to work for Barclays Bank where I was allowed to study for the Chartered Institute of Bankers Diploma. This was a one year conversion course onto the Associated Chartered Institute of Bankers Certificate. One of the modules on the Diploma was Economics and this is how I became interested in the subject.

After 2 years working at Barclays, I decided to study Economics on a full-time basis as an undergraduate at Queen Mary and Westfield College followed by an MSc in Engineering in Information Technology at UCL. The switch from studying Economics to studying ICT took place because of the growing importance of ICT to the banking industry. After completing the MSc at UCL I continued to work for a few years. However, I became more and more interested in the developing countries of China and India. In this case, I studied for an MSc in the Economics of South Asia. This was followed by a PhD in Economics. The focus of my PhD research was on the Chinese economy. After teaching various undergraduate and a postgraduate course at SOAS, I joined UCL as a Teaching Fellow in Economics to teaching on their Foundation program.

3. Student Learning: Students Perspective

The purpose of this section of the paper was to engage with students in order to establish their theories of learning so that these could be contrasted with those of the author, their teacher. Haggis (2003) suggests that the

educational 'construction of the learner avoids any real engagement with the complexities of location and context.' Furthermore, the very fact that accessibility and widening participation in education are questioned does not imply a reduction in standards, Haggis (2003). On the other hand, Mann (2001) suggests that there needs to be a shift in the focus of analysis of education from surface/strategic/deep learning to alienated or engaged experiences of learning. This would allow for a better understanding of the mechanisms which hinder educational achievement. However, Marton et al (1997) suggests that the qualitative differences in the learning outcomes of student's results are due to students having pre-conceived ideas about the subject they are to study. So the implication of this is that students with a well-founded pre-conceived idea will experience a smooth transition to better understanding and learning than students whose pre-conceived ideas about the subject are not well founded. Moreover, UoO suggests that students experience a cycle of educational development which changes over time from right/wrong to contingent knowledge.

Most of the students I teach are around the age of 18 and from different countries. Their individual levels of ability in using the English Language vary. Indeed, today's student body is culturally diverse due to globalization. As a result both the student and the international student and the host culture will need training to meet each other's needs, Otten (2003). However, while the latter recognizes cultural diversity, Walker (20030 looks at achieving social justice by widening participation in education. Moreover, Walker (2003) relies upon the capabilities approach to achieving social justice through education. This implies that through widening participation in education, people can achieve social justice by developing capabilities such as 'practice reason and affiliation', Walker (2003).

On the programme I used to teach, the students were drawn from China, India, Europe, Central Asia and Latin America. Furthermore, the subject I teach them is a hybrid of Foundation level and 1st year undergraduate level Economics. Some of the students have encountered Economics while others have not. Therefore, some students are able to learn more quickly than other students are able to do so. Recently, the students were given a mock test. On the basis of the results of this test, three students who had scored at various levels were interviewed. These students will be referred to as Student A, Student B and Student C. Student A scored in the 80% range, Student B scored in the 60% range and Student C scored in the 40% range. When the students were interviewed the same interview format was used and the same questions asked. This approach introduced consistency within the research agenda and ensured that the results could be compared. The interview questions were as follows:

a) Have you studied Economics before?
b) How good is your level of written, spoken and reading of English?
c) How many hours do you study per hour?
d) How do you study? – Just reading, writing or a mixture of both?
e) How do you revise the work you have studied?

3.1 Student A

Student A scored 84% in the mock test and came joint second with another student having claimed the number 1 position with a mark of 86%. Student A:

a) Had not studied Economics before and was new to the subject.
b) Had scored high marks in the tests for determining the ability in written, spoken and reading of English.
c) Studies about twelve hours a day and commented that she would go to sleep at 3am and then get up at 7am in order to start studying again.
d) Uses a study methodology which encompasses active reading through the use of note taking.
e) Ensures that notes are taken for lectures and tutorials so that this would facilitate ease of revision.

3.2 Student B

Student B scored 64% in the mock test and came 6th from the bottom. Student B had:

a) Studied Economics before in a private capacity, but had not formally studied it.
b) Scored improving marks in English language tests which had been taken over a period of time. However, of the marks for reading, speaking and writing the latter was the lowest. The student performed better with studying Mathematics than with studying English.
c) Spent up to eight hours preparing for each tutorial but did not schedule time to prepare for lectures.
d) Just used reading as a study methodology rather than using note taking as well.
e) Relies on tutorial problems as the basis for revision while ignoring the need to make notes in lectures and from personal reading.

3.3 Student C

Student C scored 45% and was second from the bottom with regards to the overall results. Student C had:

a) Not studied Economics before,
b) Scored low to average marks in the English tests taken in order to assess levels of ability in written, spoken and reading of English.
c) Spent only 30 minutes a day studying Economics because other subjects such as Geography demanded

a lot more time for study due to the quantity of work given.

d) Only completed parts of the tutorial questions and neither did any further reading or took notes in lectures or tutorials.
e) No revision strategy or substance for revision.

4. Peer to Peer Observation in a Different Faculty

Meyer et al (2003) discusses the notion of a threshold concept. The latter refers to ways in which new avenues can be opened up into formerly inaccessible areas of the subject. In this case, inaccessible knowledge can be categorised as that which is 'counterintuitive, alien or absurd', Meyer et al (2003). The notion of a threshold concept is relevant to Economics and Mathematics. For example, in the case of the latter the concept of a limit is a threshold concept. Meyer et al (2003) suggests that the understanding of a concept of a limit in Mathematics is necessary to progress into other areas of Mathematics such as differential Calculus. However, the way in which a Threshold Concept may be developed in a teaching concept depends on the teacher's personal theory of teaching. According to Fox (1983) a teacher can have four different types of personal theories regarding teaching. Firstly, one type of theory treats knowledge 'as a commodity which can be transferred from one vessel to another.' The second type of theory classifies teaching as a process by which students can be moulded into a 'pre-determined' form. On the other hand the third approach views the process by which students move across the 'valley and the fields 'which represents the terrain of knowledge with the teacher has the guide. Nevertheless, the final theory deals with the 'intellectual and the developmental' needs of the student. Although teachers may adhere to a personal theory of teaching it is inevitable that some real world problems need to be studied from an interdisciplinary perspective, Golding (2009). Therefore, the latter suggests that it is necessary to educate students from both a disciplinary and an interdisciplinary perspective. Moreover, according to Becher et al (2001) it is 'necessary to understand the 'diversity of the academic tribes and territories' in order to be able to deal with the problems associated with teaching and learning. In other words an interdisciplinary teaching approach to teaching and learning provides an educational and teaching environment to student and teacher which are intellectually stimulating. Indeed, Belcher et al (2001) use the example of a diverse horticultural garden and a corn field in order to contrast the disciplinary to the interdisciplinary approach to learning and teaching. The diverse horticultural garden approach to learning and teaching would present an environment in which the problems associated with learning and teaching can be resolved more quickly because more tools are available. However, in the case of the cornfield analogy to the disciplinary nature of learning and teaching, problems would be harder to resolve. The study of Economics resembles the cultivation of a large horticultural garden because of its interdisciplinary nature which draws on disparate fields such as Philosophy and mathematics.

4.1 The Observation

The teaching observation emphasized the interdisciplinary nature of Economics because the teacher observed taught Mathematics. While I taught 1st Year undergraduate / Foundation level Economics my colleague taught Mathematics on the same programme. The main distinction between Mathematics and Economics is that an understanding of the latter demands a reasonable command of the English language. A reasonable knowledge of the former on the other hand forms an integral part of the study of Economics. However, Mathematics is itself a language. The main feature of the Foundation Programme was that it was diverse with participants from all around the world with different abilities in written and spoken English. But the common feature is that 90% of the students who study Economics also study Mathematics. Prior to the teaching observation I interviewed the colleague who was to be observed and asked him if there were any areas of his teaching on which he required feedback. My colleague specifically requested that he wanted feedback on the ways in which he could improve his teaching practice. I was also told by my colleague that he believed in a teaching practice which involved audience participation. This aspect of his teaching, my colleague suggested was passed onto him by practice from the institution at which he completed his PhD. It is clear that my colleague's theory of learning depended on being able to guide his students through their learning.

When I observed my colleague on Monday 24th January 2011 at 9am it was easy to see that he made extensive use of the whiteboard. The whiteboard was used by my colleague in order to write mathematical examples which could serve as a method by which 'Threshold Concepts' could be introduced. The interacting learning process which my colleague used in order to embrace audience participation during his lecture involved asking the audience for guidance as to how to complete a mathematical problem. On occasions the students gave incorrect suggestions as to how to solve the mathematical problem and on other occasions my colleague also made incorrect suggestions. This he suggested was deliberate and made so that the students would question the appropriateness of the solution. By making errors, my colleague seemed to assist in getting students to get involved in the learning process through a process of reflection. According to Eraut (1994) getting students to reflect on their learning process was an important part of the learning process. Following the observation, I gave feedback to my colleague who stated that he wrote too much on the whiteboard and so would have been better

off by just using a PowerPoint presentation. However, my colleague advised me that in addressing the global question in education of how best to impart knowledge to his students with the global dimension of student national diversity he felt that using PowerPoint would not be the best way in which he could deliver reflective learning. Moreover, my colleague's students were also the ones who were engaged in the study of Economics. In this context some of the problems related to the students knowledge of written and spoken English. In contrast in Mathematics, knowledge of the English language is less of a requirement than it is in Economics because the former involves the use of numbers and signs, and can be learnt by example. On the other hand the acquisition of knowledge in Economics is necessarily through the reading of books. The dissemination of knowledge through lectures and tutorials is most effective when the students have are proficient in listening, reading and writing in the English language.

5. A Case Study of an Assessment in another Discipline

The focus of this case study of an assessment in another discipline will have three strands. Of these three strands the main focus will be on the assessment process and the criteria which are used with regards to assessing student performance in the MSc Biology of Vision at UCL's Department of Ophthalmology for the academic year 2010 to 2011. However, the author is also interested in evaluating the management of assessment and the way in which assessment is conducted with regards to online courses. These offshoots of the current research are pertinent to the author's professional experience for two reasons. Firstly, the author has taught on a programme in which there is lack of co-ordination in the assessment between subjects. This resulted in students devoting more study time to one subject than another during the course of the program. The consequence of this was that there was a widening gap in the results achieved in each subject on the programme in the end of year exams. Secondly, the author has written online courses, and been an online tutor, for the University of Oxford's Department for Continuing Education. Nevertheless, the main focus will be on the assessment process and criteria used on the MSc Biology of Vision and whether this 'sits' comfortably with the literature.

5.1 Biggs (1999) and the Literature

Biggs (1999) suggests that the traditional university teaching model based on lectures followed by tutorials is no longer an effective one in the context of todays diversified student body. The work of Biggs (1999), in the context of the literature, is particularly pertinent because of the government enquiry into higher education in the late 1990's which resulted in the Dearing Report. One of the conclusions of this report is that the UK higher educational system should be developed in order to facilitate lifelong learning, Dearing (1997). In this case, the selective entrance of students to university gave way to the mass appeal of university as well as globalization and mass marketing of university education. The wider appeal of university education and its globalization meant that the student body became more diverse particularly by culture, gender and class. Biggs (1999) attributes the diversity of today's student body to the difficulties experienced by teachers in maintaining academic standards. Furthermore, according to Biggs (1999), while this relationship may not hold true if the results of learning are seen as a function of the characteristics of students, it does hold true if the learning outcomes are seen as a function of the learning activities which students undertake. Therefore, because of the direct correlation between the results achieved by students and the learning activities which he/she undertakes it is important that teachers are able to structure and coordinate students learning so that students think about what they are learning. Biggs (1999) refers to the facilitation of student learning and thinking as 'the use of higher order learning processes'. However, students can only engage with their higher order learning abilities when two criteria are fulfilled, Biggs (1999). Firstly, it must be clearly stated what the student is expected to know at the end of the course. Secondly, teachers must arrange and coordinate learning activities so that students can achieve the desired levels of learning outcomes. In this context assessment is important because it gives students feedback on whether he/she has achieved the desired level of achievement. The implication is that assessment is important because it gives students feedback on whether he/she has achieved the desired level of learning as well as telling students what kind of learning activities they need to undertake. It seems that there is a need for the co-ordination of teaching, learning activities and assessments through clearly defined and stated learning objectives which act to stimulate the higher level cognitive abilities of students. This will allow for the narrowing of the gap between students of differing abilities. Moreover, a student's education should be seen not as a stock but as a flow, something which is measurable between two points of time rather than at one point in time. This conception perfectly encapsulates the notion of education as one of 'conceptual change', Biggs (1999). However, the latter suggests that in order for this 'conceptual change' to take place it is necessary to communicate the learning objectives to both students and teachers, allow teachers to motivate students through his/her teaching and create an atmosphere in which students can engage in discourse with peers and teachers alike.

The process by which student learning is facilitated is three fold, Biggs (1999). Firstly, the objectives related to the nature of understanding must be clearly defined and stated. One model which can be used for this purpose is the SOLO framework which allows for the use of a hierarchy of verbs to be used in order to define the curriculum objectives. The SOLO framework encompasses a quantitative phase and a qualitative phase. The

former represents lower levels of cognitive engagement, using verbs such as identify and describe, while the latter allows for engagement with higher levels of cognitive ability using verbs such as compare, contrast and theorise. Secondly, it is necessary to select the learning and teaching activities which can be controlled by the teacher, controlled by the students or controlled by individual students. Finally, there is a need to select an assessment task which gives teachers feedback on whether students learning have been effective. Moreover, there is also a need to define the curriculum so that students can be advised of what has to be learnt, Biggs (1999). The main problem with assessment according to Biggs (1999) is that there are institutional constraints imposed on it which are quantitative in nature rather than just being qualitative feedback. This is true even in the case where institutions provide criteria against which grades/marks can be awarded to students work. The quantitative nature of the mark means that students are students will not get feedback on how their performance can be improved. The only feedback students get from a grading system is that they did not fulfill certain criteria to make a specific grade. Biggs (1999) suggests that the poor alignment of teaching objectives, teaching and learning activities and results from administrative convenience and the use of measurement models alongside other standard models. The former model reduces students' performance to numbers while the latter identifies an ideal distribution which the student's results should have. However, both models and in particular the measurement model ignore the fact that quantifying performance says nothing about the quality of performance, Biggs (1999). Furthermore, the latter rejects the measurement model on the basis that education is about change rather than stability. This implies that teaching can change a student's bad result on one occasion to a good result on another location. This also means that students must be given the opportunity to reflect on their own learning and effective assessment tasks will facilitate this process. Black et al (1998) focuses on the role of formative assessment as a tool which can be used by teachers in order to improve his/her classroom instruction. But national and institutional policies tend to treat the classroom as a 'black box' in which the inputs are teachers, standards and students and the outputs are represented by academically competent students, Black et al (1998). According to the latter the role of assessment becomes formative when teachers use results in order to adapt his/her teaching in order to better suit the learning needs of the students. The implication is that students will have to make the inside of the black box work better in order to constantly change the inputs in order to produce better outputs, Black et al (1998). The results of a survey according to Black et al (1998) suggests that improving the methods and techniques of formative assessments does improve the learning experience of students and the results which the students ultimately achieve. Nevertheless, the difficulties associated with assessment revolve around three issues. Firstly, there is the issue of effective learning which encourages inefficient learning as well as questions being uncritically reviewed by teachers. Secondly, there is a negative aspect associated with assessment including the overemphasis of grading and the under emphasis on the provision of tailored feedback to individual students. Thirdly, there is the managerial role associated with assessment. This is particularly relevant on a degree programme composed of a number of subjects taught by different people. If the number of assessments and the timing of assessments are not co-ordinated between the subjects, especially in cases where the assessment counts towards the final grade achieved by the students then this may lead to strategic study by the students leading to better results in subjects with more assessments than in subjects with fewer assessments. The author taught on a programme where there was no effective management or co-ordination of the assessments in the subjects which comprised the whole programme. This gives rise to two problems which are detrimental to the learning environment. Firstly, the overall results in some subjects will be far worse than in other subjects. This results from students engaging in strategic study in which students use their study time on a 'selectively negligent' basis. This implies that the students will ignore or give least attention to those subjects in which there is very little assessment compared to those subjects with more assessment, Gibbs et al (2007). Secondly, students will experience 'learning fatigue'. Rust (2007) suggests that assessment is most effective when student's workload is effective and when it is perceived by the students as being threatening or distressing. Learning fatigue results because students are expected to 'cram' knowledge in a given time period with the effect that they are not able to benefit from the learning experience either at a cognitive or a personal level. Therefore, it seems that the management and assessment of co-ordination needs to take precedence over the critical review of assessments as well as the provision of relevant and adequate feedback to students. However, both of these issues are important.

Online programmes do not involve face to face teaching and are pertinent to those students who are in full time employment and are unable to either study full time or part time on face to face courses. In the context of online teaching, communication takes on a different role in comparison to face to face teaching. In face to face teaching both the body language of the teacher and his/her tone plays an important role in communicating knowledge to students. However, with regards to online teaching what is most important in teaching students and giving them feedback is the written word. The emphasis on learning from online courses is firmly in the hands of the student through participation in the online forums. Nevertheless, successful participation on online forums is contingent upon the students having completed the required reading for each forum. The online discussion forums play the

role of 'tutorials' in online courses. In these online tutorials the teacher poses a question which the students responds and discuss before the teacher responds with his/her feedback on the student responses. But formal formative assessment is given on the basis of a 400 word essay in week 5 of a 10 week online course. This is followed by a final summative 1000 word assignment in week 8 of the online course. The online course it would seem incorporates a continuous feedback to the student in its design. Furthermore, the range of teaching techniques which are available to online teachers such as online discussion forums, summative assignments and formative assignments allows them to build up students' self-esteem and to facilitate their self-reflection in to their studies. This is because in online teaching the link between student and teacher is established through written communication. Black et al (1998) underline the importance of teachers providing opportunities for students to build up their self-esteem and to personally reflect on the way in which they learn. The former can be achieved by teachers 'building' a learning environment in which students actively believe that they can do better, while the latter can be achieved by providing assessment tools which allows students to be able to reflect on their learning, Black et al (1998). It is easy to see how the online learning environment provides an insight into how the 'black box' of Black et al (1998) actually functions or should function.

Assessments can take many forms including oral presentations, exams and essays. Gibbs et al (2007) suggests that students tend to score higher on essays which are assessed rather than on tests and exams. Moreover, if the assessed component of a course were taken away to be replaced by exams then students may not study as effectively as if the assessed component had been left. Bloxham et al (2007) suggests that there are problems with using exams as a means of assessment. This is especially the case when scripts are marked. In the majority of educational institutions, scripts are marked on the basis of a marking scheme which is constructed on the basis of fulfilling criteria for each achievable grade. However, even though marking schemes allows for marking consistency when there are a number of markers this is constrained when the marking scheme is constructed by a senior teacher, without consultation, which then as to be used by junior colleagues, Bloxham et al (2007). Nevertheless, the latter suggests that these problems can be overcome if the marking scheme is constructed on the basis of consultation with a team of colleagues, if it is written on the basis of flexibility in addressing student responses and pre-moderation meetings are held by the teachers who are to mark the scripts. Rust (2007) suggests that the belief that double marking will produce results which are consistent and robust is simply a myth because a compromise will be needed between markers. Furthermore, degree classifications could be distorted because of the need to comply with institutional rules regarding the weights which should be attached to the specific components of a degree programme. For example, while the results of exams and tests provide very little formative feedback to students this form of assessment tends to be weighted more heavily in degree programs than are formative tests which provides feedback to students which may prove to be reflective, Rust (2007).

5.2 MSc Biology of Vision

In order to better understand and appreciate how an assessment is carried out in a field other than my own, I studied a course which was taught by a colleague, the MSc in the Biology of Vision. My colleague was the Deputy Module Organiser for Basic Module 3 which focuses on 'Genetics and Epidemiology of Ocular Disease' on the MSc in the Biology of Vision. The module for which my colleague is an organiser is one of seven on the MSc. The seventh module is a dissertation which is worth 50% of the final assessment towards the MSc. In this case, my colleague's module on the MSc and the other five modules on the MSc only contribute a weighting of 8.3% towards the final assessment of the MSc. The module was taught by my colleague from the 8th November 2010 to the 23rd November 2010 with teaching and assessment on a continuous basis facilitated by 'tutorials, workshops, lectures, demonstrations and journal clubs, IoO (2010). But my colleague taught courses on the Ocular Cell Biology Module. The 'Genetics and Epidemiology of Ocular Disease' module comprised three different types of assessment. Firstly, there was an oral presentation which contributed 30% of the marks of the module to the final result. The oral presentation had to be based on a topic which was taught on the course. The deadline for the submission of the presentation was the 26th November 2010. The second type of assessment was a Bio-Informatics mini task, the deadline for which was the 20th December 2010, which comprised 40% of the final marks for the module. The third and final mode of assessment for the module was a 3000 word essay which contributed 30% towards the final result of the module. The deadline for the submission of the essay was the 4th April 2011. The deadline is the same for the essay in the five other modules. Each module on the MSc Biology of Vision has up to four different types of assessments. None of the modules as a final exam as a mode of assessment. The assessment criteria for all the essays which are deliverable by all the students on the MSc in Biology of Vision indicates that each grade has a certain criteria which has to be addressed by the students writing the essays in order that they can attain the appropriate grade. In order for students to pass the MSc in the Biology of Vision, a mark of between 50 and 59% must be attained in each module and each module must be passed. However, while the MSc in the Biology of Vision has its own aims and objectives, it can also be said that each module also has its owns unique aims and objectives. Moreover, despite clearly stated aims and objectives my colleague's module stated clearly what the students were expected to know:

'Students will be able to understand the material provided in the lectures, tutorials and in the practical sessions. This includes the knowledge of materials in any references which are specified on the course.'

6. Conclusion

My learning experience has been evolutionary, becoming more rapid after discovering Economics. I am passionate about Economics because it is a social science which has global and historical implications for the day to day lives of the whole of humanity. However, I am also interested in other subjects such as Astrophysics, Archaeology and Anthropology. This would suggest that my learning is both evolutionary and develops over time. This evolutionary and continuous aspect of my learning has been noticed by my peers. For example, one suggested that it is important for a teacher to 'challenge intellectual processes through teaching'. Another peer suggested that 'effective and deep learning occurs when the learner has a personal interest and motivation for studying.

From a student perspective there seems to be a definite correlation between the ability to speak, read and to write English and the performance in the mock test. In this case, it would seem that a high ability to speak, write and read written English bestows not only the ability to understand what is being taught but also the ability to organize time and to plan materials. This is evident from the fact that moving from Student A to Student C the level of written, spoken and reading of English fell. This had the consequence that the organizational and planning ability of students also fell. The time necessary to acquire a proficient level of linguistic ability may be contingent upon the educational level of the student. In this case, postgraduates can acquire linguistic ability in a language which is different from their own much more quickly than can students who are at a lower level of education. Therefore, it can be said that the ability of students to succeed in the British educational system is contingent upon the student's ability to master the English language and it was this mastery which influenced the level of the student's organizational and planning ability.

It was apparent from the session in which I observed my colleagues teaching that he felt that he was a guide to his students learning and this formed the backbone of his teaching philosophy. The promotion of interdisciplinary teaching in the literature is evidenced in the teaching of Economics and Mathematics. This close relationship between Economics and Mathematics and my teaching and my colleagues teaching was highlighted by the teaching in Computer Science. In this case another colleague of mine who taught Computer Science observed another colleague's teaching in Chemistry. While there was significant interaction between the teacher and the students in the teaching of my Maths colleague, there seemed to be little interaction between the teacher and the student in the teaching of Chemistry. This is highly suggestive of the fact that if a teacher has a relevant theory of teaching then the result is a high level of interaction between the teacher and the students. Moreover, if this was the case then it must be true that the level of interaction is not subject specific. But it must be recognized that my colleague who taught Maths had only a teaching only post while the Lecturer who was observed by my colleague had a teaching and research post. Colbeck (1998) suggests that in teaching / research posts increased staff productivity can only be achieved by working conditions which foster the integration of teaching and research. On the other hand Boyer (1994) suggests that a diverse network of higher educational institutions is required with each institution following its own agenda rather than duplicating the functions of other institutions. However, the results of the observation does suggest that the literature, specifically Becher et al (2001), is correct to suggest that subjects cannot be taught in isolation and an interdisciplinary approach to teaching is necessary.

Although the MSc in the Biology of Vision is assessed entirely on the basis of essays, tasks and presentations it seems to be devoid of exams based assessment and the problems posed by the marking of scripts. However, the main problem with regards to the assessment of the subject matter relating to each module on the programme seems to, according to the literature; focus on the lack of formative assessments as well as the management of assessments. It has been mentioned that the literature does suggest that formative assessments not only provides a mechanism which provides students with feedback as to the effectiveness of their learning; and teachers with feedback as to the effectiveness of their teaching practice. This tends to allow teachers to change their teaching strategy and practice and to be innovative with regards to the design of new learning activities which the students they teach can undertake. In this way the teacher may be able to engage with the higher level cognitive powers of a student.

None of the modules on the MSc in the Biology of Vision except the Ocular Cell Biology Module seemed to be able to offer a reflective component. The Ocular Cell Biology module compromises three essays which includes a formative assignment as well as the delivery of an oral presentation. The author is assuming that regular office hours are made available so that the students can meet the respective module teachers in order to discuss problems they may be having with regards to the coursework. However, this is not stated on the course programme. This is in sharp contrast to the online programme on which the author is involved in at the moment. The very nature of the online programme means that students will be able to get regular feedback on their performance than perhaps would be the case on face to face programs. The literature survey suggests that there

may be other problems which may emerge due to problems associated with the management of assessment. With seven modules on the MSc in Biology of Vision, each having four assessments may lead to the learning fatigue on the behalf of the student. This is because while some assessments may have similar deadlines, the deadline for other assessments may be spread out. Moreover, students may engage in strategic study such that they do better in some subjects than they may do so in other parts. The author easily identifies with the poor view of the management of assessment and its implications for student behaviour and conduct. Therefore, in order to ensure that student learning on each module is effective; and at the same time negating learning fatigue means that the better co-ordination and management of assessments is critical. This might mean that the number of assessment is reduced and the final assessment is conducted by examination. So the implication is that the students will find it less necessary to engage in strategic study; and will find study more rewarding and intellectually fruitful. My colleague tells me that she and her colleagues on the MSc in the Biology of Vision are looking at ways which can reduce strategic study by students as well as the learning fatigue which students may experience.

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