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A Quantitative Study Into Grade Inflation (Perceived and Actual) in the College of Business, Technologicl University Dublin

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A quantitative study into grade inflation (perceived and actual) in the College of Business, Dublin Institute of Technology

by

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Abstract

A quantitative study into grade inflation in the College of Business (perceived and actual) in the College of Business, Dublin Institute of Technology

Most academics have an opinion on the existence or otherwise of grade inflation. Some people deny the existence of grade inflation. Some argue that it is damaging to academia while some argue that it is a normal phenomenon and is not damaging while others assert that it is impossible to measure. Due to the difficulty in measurement of grade inflation this study was devised to measure firsts and distinctions to ascertain the quantity of grade inflation. This study takes a two pronged approach to discovering the real and perceived existence or otherwise of grade inflation in the College. In the first instance a comparative study of the grades achieved by final year students in the year 2000 and in the year 2010 was undertaken, the data used to ascertain this information was collected from the College computer database which serves two of the schools in the College. The information demonstrates that the number of firsts awarded to students grew by one hundred percent. In the second instance a perception survey was carried out in the College where all academics in the college were asked to complete the survey. The results of this survey assert that there exists a perception of the upward movement in the awarding of first class honours. They also confirm that the upward movement of grades is caused in the main by institutional pressures to increase marks rather than educational imperatives. Now that it is established that there has been over one hundred percent increase in firsts between 2000 and 2010 one must ask the question how much time will pass before everyone achieves a first in their final results and how will we rank order the successful students.

Acknowledgements

From the outset I must thank all respondents who went to the trouble to complete the questionnaire; a vital component for this study, without which I would not have been able to proceed. To all others particularly those of you in the College of Business, in the Learning and Teaching Centre and in the Student Services Centre but also in other sections who helped me in putting this work together I extend my sincere gratitude. I should like to single out the following, in particular, for their patience and forbearance:

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I should like to dedicate this work to the memory of Phillip Raymond Flood, former Head of School of Marketing, Dublin Institute of Technology, who never tired of giving encouragement. It was he who first informed me that the real purpose of assigning grades to students was to rank the students in order of merit. *Ar dheis Dé go raibh a anam dílis.*

Introduction

„We have been engaged in self-delusion and "codding ourselves" for years, believing our education system was among the best in the world', Education Minister Ruairí Quinn said on twenty sixth of May 2011.

We all have standards by which we measure our own worth. How can we assure ourselves, our students, employers and the public in general that the grades we assign to our students' works are truly meaningful? When will we be confident that the results achieved by students in one institution will be comparable with similar results achieved by students from another institution? We in academia "know" that grade inflation exists and that it is not consistent across institutes.

This dissertation is a study of the perception of the academics of the College of Business to the existence or otherwise of grade inflation in the College of Business, Dublin Institute of Technology and it is a study of the grades achieved by separate cohorts of students in the sessional examinations of the academic years ending 2000 and 2010. These grades were investigated with a view to determining the rate of inflation that occurred in the grades awarded to those two separate cohorts of students. Quantitative techniques were used to evaluate the responses to the questionnaire, and statistical measures were taken to evaluate the level of grade inflation over the period under examination.

In 1986 I began my teaching career, initially as an instructor to youth groups, working on a part-time basis and later in full-time occupation teaching in Dublin Institute of Technology, where I have now worked for twenty three years. It is my perception that the average grade marks awarded to students in that time have slowly increased. For example when I began teaching in Dublin Institute of Technology in the Advanced Diploma in Marketing Management (a course which also was awarded degree status by Dublin University, not an uncommon practice at the time) there was but a handful of first class honours, fewer than six percent of the graduating class merited first class honours, last year in the same course, now an undergraduate degree awarded by DIT, twelve percent of the students in the graduating class achieved firsts. Now either our teaching has improved or the student body has vastly improved or perhaps something else is at play. I have no doubt that the former is the case, consider the words of Émile Coué as quoted by (Crotty, 2005) „every day in every way I'm getting better and better'. A sentiment echoed by Frank McCourt when promoting one of his books, Teacher Man (2005). He pointed out that he had spent thirty years learning to be a teacher. Perhaps we do improve, perhaps we are getting better. Dublin Institute of Technology has invested heavily in the education of its own staff and that investment should at the very least improve the teaching skills of those who undertake the additional education.

The point system was developed to allot university courses to Leaving Certificate students. It has been in use in its present format since 1992 this facilitates comparisons between the Faculty of Business students of ten years ago and now can easily be made. It is my belief that the student of ten or twenty years ago was no less intelligent than their modern counterparts. The entry point requirements for many courses have increased, this increase is most definitely less than ten percent, and yet the students today achieve a greater overall percentage point average in both the leaving certificate and in the degree awards. Further between 1992 and 2004 there was an increase in the A and B grades in the Leaving Certificate results of the order of fifty percent (O'Grady 2009). This in turn questions the real value of the entry requirements to the third level education. There is ample evidence in the literature to prove this.

The aim of social research is to generate knowledge and in particular to identify regularities in social process, which it is expected will help us understand the presence, the type, extent and the causes of problems and the ways we could control them (Sarantakos 2005). Motivations for research can be: intrinsic, extrinsic, personal, educational, institutional, tactical or perhaps even *'magical'* (Sarantakos's emphasis), the latter offers credibility to views held by researchers and/or their sponsors. From my perspective I think that all the above offer sound reasons to conduct this research.

That increase in grades achieved by final year students is a starting point or impetus for my desire to do this research, the next impetus occurred at a Teachers Union of Ireland Conference, held in 2005. At this Conference a paper was delivered, very passionately by Brendan Guilfoyle the subject of which was the Dangers of Grade Inflation. The message here was that grade inflation was a menace, to be prevented at all costs. This held my attention. That which concerned the researchers in Institute of Technology Tralee, was the effect of the consequences of grade inflation, not the prevention of the phenomenon. It appeared to me that they wished to halt the process of grade inflation an admirable objective. I thought that the message was ever so slightly flawed. Many arguments were put forward as to the occurrence of grade inflation but little attention was paid to why it existed or to the solution that might remedy it. In fairness a paper outlining the causes of grade inflation in the Institute of Technology sector was subsequently produced. This is to be seen in "The Causes of Grade Inflation: An Exploration of Social and Institutional Pressures and Policy Choices", Report No 4, Network for Irish Educational Standards, by O'Grady, and Quinn, (2007). Today a few years later I am presented with an opportunity to investigate the phenomenon in The College of Business Dublin Institute of Technology. I do not in this study attempt to discover a remedy for grade inflation, I allude to some, rather I seek to evaluate the perceptions of the academics to the phenomenon.

I expect that I shall prove that grade inflation does exist in reality and in the perceptions of the academics in the College of Business, Dublin Institute of Technology.

Chapter two attempts to improve our understanding of the topic in question and here we examine that body of literature that exists on grade inflation. This chapter concentrates mainly on information available from research into third level grade inflation but also addresses some issues from the evidence in grade inflation in the second level sector in particular as third level students go through the second level almost immediately prior to studying for a third level qualification.

Chapter three looks at the research itself, the research objectives and the sub objectives, the research vehicle chosen and the research methodology employed. As my preference is for quantitative data, a quantitative study of the issues is implemented. There is a reliability about figures that I like.

Chapter four is concerned with the analysis of the information collected both from the data on student results and on the analysis arising from the research findings. This chapter shows that there has been an upward trend in the grades awarded to students over the ten year period and that the perceptions of the lecturers is one of continuing upward increases in the grades awarded, although less so in the subjects taught by the respondents themselves. Further the lecturers' perceptions in the main suggest that they ascribe the cause of grade inflation mainly to institutional issues. This chapter also looks at the key findings which suggest that the quantitative study is broadly in agreement with the perceptions held by the lecturers in the College of Business Dublin Institute of Technology and the actual findings from the investigation into student results.

The final chapter details the limitations of the current study and provides some suggestions and recommendations for further study in this field.
The next chapter deals with a review of the literature on grade inflation taking into account the reality of the upward movement of grades, some of the marks of those who sat their final examinations in the College of Business are measured, possible remedies to correct inflation and an analysis of institutional factors which effect this upward movement of grades.

Literature Review

"Administrators find it easier to make measurable things important, rather than measuring important things". This observation has been attributed to Galileo Galilei and Albert Einstein.

This literature review looks at the literature on grade inflation, grades themselves, remedies for grade inflation and at institutional and external factors which impact on grade inflation.

Grade inflation

In an investigation on any topic it is often useful to set out definitions as required. For this study the following definition of grade inflation by Alfie Kohn, using American terminology, is useful: grade inflation is *an upward shift in students' grade point average without a similar rise in achievement.* Interestingly he goes on to infer that the fact that grade inflation exists is not a bad thing (2002). Grade point average (GPA) is a measurement used mainly in North America as a calculation of the average of all of a student's grades for all semesters and courses completed up to a given academic term; the score is measured from one to four with a one representing a C or forty percent and a four representing an A or A+ or eighty percent to eighty percent +. There are variations in this system, but they are too numerous to show here. Other authors define grade inflation in terms of increases in grades for similar quantities and qualities of work carried out in the past or where similar grades are obtained for student output which required less work or learning than had been required in the past (Cohen 1984).

Similarly Martin O'Grady and Brendan Guilfoyle assert that *grade inflation occurs when there is an upward trend in grades over a period of time in the absence of a matching improvement in learning or achievement* (2007a). Additionally, grade inflation is explained as the awarding of higher grades without an improvement in learning (O'Grady 2009). The two definitions are close to the definition shown in the paragraph above, especially in their intent. In all cases there is an inference that it would be better that grade inflation did not exist, although in the former it appears to me that Kohn infers that grade inflation is not a bad thing. In fact, his article questions whether grade inflation exists in-so-far-as he is of the opinion that students are indeed getting better; more of this later.

Contrast the above definitions with the traditional view of grading in education which states that grades are devices used by faculty members to maintain standards and to show student progress (Johnson, 2003). This suggests that comparisons should be possible between students' results of a particular cohort and students' results from different cohorts. This could be as true for the Irish

education system as it is for the United States of America education system. No matter how we define grade inflation the autonomy of institutions and the large number of variables will undermine our attempts to discover the underlying causes of grade inflation (Yorke, 2009).

Johnson informs us that research into grade inflation has been ongoing especially in the United States for eighty years or more (2003). A 1894 Report of the Committee of Raising Standards in Harvard University stated that grades of A and B were given too readily for work *of no high merit* or work that was little better than mediocre. The report in effect accused the lecturers of being too lenient with the grades that they awarded. Clearly some were concerned by the slipping standards in Harvard over one hundred years ago. In Ireland investigation into the existence of grade inflation began in earnest with the Network for Irish Educational Standards, a movement begun by educationalists in Tralee Institute of Technology in 2007.

Begun in earnest in the 1980s, there is in the USA extensive research into grade inflation, much of which is concentrated on test cases in the second level sector but latterly some research has been conducted in the major Ivy League schools. Although informative, the research offers limited scope to this investigation except that it indicates that grade inflation occurs in both the second and in the third levels of education. Private third level shows more grade inflation than the public third level educational section. This research follows on from the observation from Professor Harvey Mansfield of Harvard University that grade inflation began in the late 1960s and the early 1970s (2001).

More recently researchers have begun investigating the phenomenon of grade inflation in the third level sector. Rojstaczer (2003) points out that grade inflation has increased by 0.12 (GPA) per decade over the thirty five years to 2002, for the thirty institutes which were part of his study. The maximum available grade point is four and the average achieved by students in 2002 was 3.09 for all institutes and 3.26 for private institutes. Most participating institutes explained the increases by suggesting that the student quality improved, while a few tried to justify the increases by attempting a correlation between Scholastic Aptitude Test (SAT) scores and GPA scores. Rojstaczer (2003) informs us that the College Board, the body responsible for administering the SATs, is unable to show that SAT scores are a good predictor of college GPAs. Although Rojstaczer dismisses the qualitative rationale for the increase in GPAs, he does offer his own personal views as to why the increase occurred. These include, among others, that in a consumer culture students are more demanding, pay more for their education and *professors are not only compelled to grade easier, but also to water down course content.*

There is also considerable interest in this subject and a growing body of knowledge developing in the United Kingdom. In November 2004, Universities UK/SCOP under the chairmanship of Professor

Robert Burgess produced the report: Measuring and Recording Student Achievement. This study, although not directly addressing the topic of grade inflation, recommended that the current system of degree classification should be reviewed as it no longer provides an appropriate means for summarising student achievement, citing the following reasons: disciplinary differences and variations across modules which allowed for different rates of achievement between Sciences and Arts and the Social Science disciplines and the significant differences of degree classification.

Mantz Yorke looked at trends in the awarding of honours degrees in England, Wales and Northern Ireland and found that in the period where comparisons could be made i.e. before the introduction of the Joint Academic Coding System, introduced in 2002/2003 academic year, that there was indeed an increase in the grades awarded for "good honours degrees" overall and that the increase achieved by the Russell Group of Universities (the top twenty) was higher than average (2009). Yorke found that these increases may be attributable, *inter allia*, to better teaching and grading, increased student diligence, improved learning outcomes, use of assessments other than unseen examinations, the latter which generally produced better results than the written examinations (2009).

In Ireland a group of academics, in the Institute of Technology Tralee, have produced a number of papers on the topic. They have set up a website specifically to address the issue of grade inflation, the address of which is www.stopgradeinflation.ie.

In the O'Grady case study into grades awarded to the first cohort of student nurses studying at Institutes of Technology and Universities with the courses overseen by An Bord Altranais, he notes that there was a significant variation in the awards granted and that these did not reflect the Central Applications Office (CAO) entry points achieved by the student nurses in their Leaving Certificate examinations. There is a clear similarity here with the work of the scoping group under Burgess (2004). O'Grady's work examines a course delivered by various institutions and finds that the grades awarded depend on the institution that the student attended rather than their ability which should be evident from CAO results. From this it is tempting to suggest that teaching ability varies across institutions. The study does not attempt to measure teacher effectiveness – it is probably too important.

Articles are presented in national papers occasionally on this topic, particularly at national examination times or when results are due for publication, take for example the article by Flynn in the Irish Times of 24 May 2008, entitled „Dramatic Rise in Numbers Taking Honours Degrees' in which he points out that there is a fear that some third level courses are being "dumbed down". See also Flynn, S. „Leaving Cert „discredited' by huge rise in top grades', Irish Times, 28 May 2008.

The information gleaned by Schilling and Schilling (1999), shown in their work on assessments, offers assistance to this investigation and serves as a source of additional topics for the research question herein developed. Schilling identifies eight frequently mentioned causes for grade inflation, these are:

- Institutional pressures to retain students;
- Increased attention and sensitivity to personal crisis situations for students;
- Higher grades used to obtain better student evaluations of teaching;
- The increased use of subjective or motivational factors in grading;
- Changing grading policies and practices;
- Faculty attitudes.
- Content deflation;
- Changing mission.

The Schillings offer a rationale for the selection of each of the above. Further, the study by O'Grady (2007) facilitates and informs the present study, where he identifies twenty different regulation revisions by The Department of Education and HETAC, between 1990 and 2007, facilitating the Institutes of Technology in lowering the academic demands for obtaining higher qualifications. O'Grady's argument is that individually each regulation change may have had only a minor affect on grade inflation but it was when all the regulatory changes were combined that an appreciable affect was noticed, although this was not quantified.

In a report in the Irish Times edited by Seán Flynn, Education Editor, it is noted that it was widely expected that the review by the Department of Education then under way would find clear evidence of grade inflation. He also indicated that earlier studies, notably those of the Network for Irish Educational Standards based in the Tralee Institute of Technology, had shown that the percentage of first class honours degrees awarded in Irish universities has almost trebled, for A and B grades combined, since the mid-1990s, and that the number of students securing the perfect Leaving Cert, i.e. six hundred points, was up 500 by per cent (Flynn 2010a) (see also Appendix IV). When the report was published it did show that there was an increase in the higher grades awarded in the Leaving Certificate, this increase showed that forty three percent of students were awarded A and B grades overall at the higher levels in 2006 as compared to twenty one percent awarded A and B grades in 1992 (Flynn 2010b). A break down of the figures from the study shows that there was an increase in these grades awarded over the period (2009). The increase in grades in that period showed a mean average increase of five hundred and twenty percent for A grades and ninety five percent increase for B grades.

Séan Flynn reported on a controversy that arose in the Tralee Institute of Technology in September 2010 where thirty six students were allowed to progress to the fourth year of a degree course although

the lecturer, Martin O'Grady, had already adjudicated that the students should fail the module An Introduction to Psychology, delivered in the third year of the four year degree course, Health and Leisure. Interestingly, Martin O'Grady is one of the founder members of the Network for Irish Educational Standards. Perhaps he is convinced that the educational standards are slipping and that he, even if none other, is willing to stand by his convictions and show that he believes that the students did not merit the grades which would allow them to progress. Perhaps he should join Professor Harvey Mansfield of Harvard University who provides a novel grading for his students by giving them two grades for their work; one for his own perceived value of the work presented and another for that was in keeping with the college's system of inflated grades (Cushman 2003). Further, in the same article Séan Flynn noted that earlier in 2000 one hundred students, in the Cork Institute of Technology, who failed their final examination, had their marks upgraded, although no details of this were provided (Flynn 2010c).

There are very few books on the topic of grade inflation. Many newspaper articles abound on the subject and some research (vast quantities in America) has been conducted to assess the extent of grade inflation. Most writers on the subject confirm its existence and many offer reasons why it is acceptable and perhaps desirable, for example, Valen Johnson writing in Grade Inflation notes| *Regardless of ones philosophy toward grading, it must be acknowledged that assigning higher-than-average grades is, at the very least, convenient. In many cases it is career enhancing.*

Johnson identifies frequently mentioned causes for grade inflation. Some of these are specific to educational systems other than that in Ireland in that they refer to the effects that students' grading has on the teachers' success in attaining tenure; no doubt this will with the passage of time become common place in Ireland. In Ireland the students' rating of teachers is not used as a criterion for assessing employability as of this moment. Those of interest to this study are:

- Differing grading practices between instructors cause biases in student evaluations of teaching;
- Grading practices differ between disciplines and instructors; and
- Differing grading practices impact on student enrollments, and cause fewer students to enroll in those fields that grade more stringently. While this is relevant to the enrolments in education in Ireland it is not to be considered in this study except as point of interest.

One issue not identified by Johnson except as a rebuttal to the existence of grade inflation is the claim that higher grades simply reflect higher level of student achievement. Allied to the better student argument is the better teacher argument. Both of these points are noted by Kohn above and form part of the investigation.

American multinational organisations caused a stir and some soul-searching among educators when they severely criticised the Irish education system stating that there was too much emphasis placed on learning by rote and not enough emphasis placed on problem-solving skills. These skills are required so as to engender creativity which is needed in the economy (Bielenberg 2010).

The Former Education Minister, Batt O'Keeffe, ordered an analysis of awards granted in the third level sector in the past decade. This was in response to comments for industry leaders that the Irish education system had been dumbed down as was evidenced by the rising number of top grades (Murray 2010). The former Intel chairman, Craig Barrett, recently commented that Ireland needed to improve its education system if it was to continue to attract technological investment. Barrett pointed particularly to the average performance of Irish students in maths and science in recent times (Murray, 2010). Minister O'Keeffe stated that factors such as *revised curricula, greater focus on exams and better training for teachers, may have influenced increases in top Leaving Certificate results*. Further, he said that there is a perception that a significant increase in the number of first class honours was being offered in the third level sector. This is one of the main themes which is measured by the questionnaire in this study.

Tom Begley claimed that the Irish Government is *clueless and directionless* in its strategy development for third level education and in its desire to implement the Hunt Report, which was released to the public in January 2011. The report focuses on the growth in numbers in higher education and the diminution of quality of courses and with the earning capacities of those who complete their higher education. Begley was Assistant Dean of Business in University College Dublin and, as such, his main complaint with the government is the lack of funds for business schools but he also bemoaned the lack of foresight in investing in education. One major problem that he envisaged with the education system in Ireland is the Leaving Certificate Examination. In fact he would *like to blow up the Leaving Cert* (Foley 2011). Someone should inform him that it was the introduction of the points system, which the universities themselves introduced and also own (according to Professor Prondzynski), that created the problems with the Leaving Certificate Examinations. Begley suggests that the government needs to engage some who are *intimately familiar* with third and fourth level education and bring them together to develop a strategy (Foley 2011).

Áine Hyland put a motion to a debate in Waterford Institute of Technology stating that improved student grades in higher education were a valid reflection of improvements in teaching and learning. She contended that universities rejected concerns that student grades were inflating. Further, Professor Hyland, Emeritus Professor of Education and former UCC Vice President, stated that *improvements in staff teaching have led to improved student learning.* Interestingly, Professor Hyland commented on examinations being used as an obstacle race, devices which were designed to humiliate and embarrass

students and opportunities to highlight failures and rejoice in them. This was reported in Education Matters, 22nd November 2008. In fairness, she commented that the examinations could be so used, but why would that thought process develop in ones head unless one recognised that these were possibilities.

Cushman assigns the causes of grade inflation to:

1. the policies which the recent generation of administrators have pursued with unrequited vigour;
2. the relaxation of admissions standards for certain classes of students;
3. the treatment of higher education as a consumer commodity in which the paying customer demands a marketable grade; and
4. the steady erosion of professorial authority in response to student objections to more rigorous standards.

Source: Who best to tame grade inflation? Academic Questions, Fall2003, Vol. 16 Issue 4, p48-56, 9p

Clearly Cushman lays the blame for grade inflation in the laps of two stake holders, perhaps three. The first are the administrators. Education, particularly in America, is a business with profit motives; here it is a business with cost constraint motives, see Rojstaczer above. If the organisation is niggardly with its marks then the students who undoubtedly know this will be encouraged to go elsewhere to graduate and maybe study. In Ireland the Department of Education are the pay masters and as such the administrators. Is it any wonder that Professor Hyland and Minister O'Keefe, both of whom were involved as administrators in their own spheres, should take the views stated above? The second stakes holders are the students. In particular, note cause number three above which mentions the paying customer demanding a marketable grade. Is a pass degree marketable today? Cardinal Newman graduated from Oxford with a third class honours BA, 1821, and he proved to be a very influential individual. Who today would be happy to parade their third class honours in their curriculum vitae? In surveys from Fortune 500 companies in 1978, 1985 and 1995 it was found that Human Resources officers' preference for showing college grades in with an applicant's resume dropped from thirty seven point five percent to twenty percent (Spinks and Wells 1999).

The third group of stake holders are surely the academics in allowing the pressure to influence them. The lecturers are complicit in the fraud (Cushman 2003). He blames laziness on the part of the lecturers from the point of view that more explaining is required for weak grades; the irate student who queries his mark, and the college administrators must be assured that wealthy alumni will send their children to be educated in turn. Academics assign grades, they may be under pressure from the administrators, they may feel that in order to obtain favourable grades from students they must give favourable grades first or a least be known as an easy marker. We like to be liked and students will like us if we are lenient with our grades, teachers are human.

Commentary on the marks awarded by the College of Business

In this dissertation the average marks are the averages of those marks that the student receives on the transcript. The student's qualification is based on an averaging of the marks awarded for all subjects, this marking is known as summative feedback. Summative feedback occurs at the end of a process after one has been taught (Biggs and Tang). Because of the reliability of figures some academics and in particular administrators perceive that the results are accurate and actually like the system. Many of these would like to see a normal distribution of all the results for each cohort of students. The nineteenth century psychologist Galton, would have suggested that for results to be distributed normally one would need to accept all students into a course (Biggs and Tang 2009). In reality students are accepted on to a third level courses based on their proven ability to complete their Leaving Certificate Examination or other relevant. So when a student achieves a 400 point score (on a Leaving Certificate Scale), he/she has proven that they are better at academic work than the average student; the average student scored, according to the Central Applications Office, 320 points in 2010.

Summative feedback arises when all marks awarded for the various components in an examination and put together. The student is informed of the result; this provides an index of how successfully the student learned at the completion of the teaching (Biggs and Tang 2009).There is something slightly unjust in this method of awarding students. It does allow us to rank order the students but it does not really inform us on how well a student can perform. It is not in the remit of this paper to go into the quantitative and its perceived reliability and objectivity and the qualitative arguments of assessments. It is not known how the academics assessed the students whose grades are examined in this dissertation. One can only hope that there is a movement away form measurement model of evaluation to the standards model. Biggs and Tang inform us that there is much agreement about the reliability and validity of the standards model (2009). The standards model is used to assess the effectiveness of learning during and after teaching and learning experience, further it is used to relate the individual learning outcomes rather than to correlate the results with outside performances (Biggs and Tang).

Remedies for the problem of grade inflation

Cushman also tells us that it is the academics who assign the grades so the responsibility to reverse the grade inflation lies with them (2003). Is it possible to reverse the trend in the upward movement in grades? Both Cushman (2003) and Kamber (2008) writing separately offer solutions. Kamber makes an interesting comment that grade is about being honest, this notion deserves further investigation. Professor Mansfield, noted above, uses a novel remedy, not unlike old Italian accounting practices, where a set of books was kept for the taxman and a different set was kept for the owners. If everyone

followed this remedy there would come a time when we would call for a halt to the double accounting and perhaps just supply the real grade to the student.

Kamber offers a three part solution:

1. award no more than twenty percent of undergraduate grades at the A level;
2. award no more than fifty percent of undergraduate courses at the A and B levels combined; and
3. use the grade F to indicate failure to meet the course standards.

Adapted from Kamber,R. Combating Grade inflation: Obstacles and Opportunities.

The figures shown above may appear excessive for Irish Institutions but they are low by American standards. Obviously, for the solution to be implemented in Ireland the grades awarded would have to be modified. The American grades may indicate the distance we may travel before we try to combat the problem in Ireland. Kamber is not an advocate of grading to the normal distribution curve, in that he believes that a grade D is substandard and carries a marker indicating a very low rank (2008). I perceive that Kamber's marking scheme is higher than that which most academics would wish to achieve in Ireland (2008). We are reminded by Kamber that following eight years research Princeton University voted that each department or course would restrict the number achieving the upper grades in a given year (2008). The proposal was not accepted the first year but the majority of department heads redoubled their efforts and managed to put a cap on the As at thirty five percent, (the highest percent of students achieving As, in any year, was forty seven percent). In 2004 the measures were adopted and in the 2004-2005 period the actual results began to show a decline, in this case from forty six percent to forty point nine percent. Obviously this is a slow and painful process. It works for Princeton University, but is it enough that a university goes it alone? The effect of a solo run could mean in the longer term that students might also run, run to other institutions which offer better rewards for less effort.

The proper way to counter grade inflation is for the faculty to spearhead the movement; it could be carried out incrementally: grades should be reduced incrementally in accordance with institute standards (Cushman 2003). Tenured professors should lead the charge and be willing to make the difference.

These simple solutions might work in each institute separately but it would require a seed change in attitude for the Department of Education to take the initiative and legislate for the change in Ireland, if the former Minister, an educationalist, believed that grade inflation did not exist what hope does the Department of Education have. Unlike Kamber, I see nothing wrong with normal distributions especially if we use grades to rank students and ranking students according to their ability does have merit (2008).

Institutional and external factors which exert pressure on the upward movement of grades

An initiative introduced by Dublin Institute of Technology six years ago that undoubtedly helped some students is the initiative to provide additional tuition to students who find accountancy, mathematics, statistics and/or science difficult. A college manager has informed me that each year since the introduction of this learning support the authorities have financed the initiative „for just one more year'. Each year it continued and looks likely to continue for at least the next academic year. Finance is a major problem in all third level institutes in Ireland and this may be a factor in the continuity of the initiative. The support is helpful as there has been a significant diminution of the numerative skills in the past few years. This may have arisen due to students choosing subjects which they "know" should provide points which are easier to accumulate than those provided by mathematics.

Research carried out by Martin O'Grady shows that in percentage terms all grades in mathematics higher level papers, from C1 up to A1 increased in 2006 in relation to the corresponding percentage achievements of 1992 (O'Grady 2009). It is worth noting that eighteen point six of all who sat for the mathematics paper sat the honours paper in 1992 and twenty point four percent of all who sat the mathematics paper in 2006 sat the honours paper, confirming Flynn's observation above. Further, there was a ninety four percent increase in the A grades awarded and a thirty seven percent increase in the B grades awarded. These figures are low compared to the mean percentage increase of one hundred and forty four percent and fifty two percent respectively. The increases in grades in mathematics are the weakest increases of all subjects in the Leaving Certificate over the compared years (O'Grady), in relation to all other subjects.

In 2000 the Director of Academic Affairs in the Dublin Institute of Technology introduced an initiative in academic teaching support. This was the introduction of a Post Graduate Certificate in Learning and Teaching. Initially, this post graduate course was to provide teaching education for staff of Dublin Institute of Technology who were encouraged and supported by way of a fee waiver and, in some cases, a time allowance to attend. Later the course was opened out to the public. Later still attendance at the course became mandatory for all newly appointed members of academic staff. At this point a Post Graduate Diploma and a Masters in Education was offered; these are also supported by management of Dublin Institute of Technology. Approximately one hundred and eighty people have graduated from these courses, to date.

One can talk only anecdotally about changes in grading policies and practices in the College of Business, Dublin Institute of Technology as any attempt to suggest that pressure is exerted on individuals to move marks upwardly will be strenuously denied. The program for Government

introduced semesterisation into the academic year in an attempt to improve productivity. This was a partnership agreement which was rejected by the Teachers Union of Ireland but imposed by government because there was a majority of union members from other unions in favour of accepting the overall agreement. It is amazing that the Government would ignore the wisdom of those who educate and attempt to americanise the Irish third level system. This semesterisation gave rise to one minor problem and that is that it is not possible for students to re-sit failed examinations until the autumn sittings of supplemental examinations. Semesterisation of a module encourages students to learn by rote rather than develop an understanding through a longer period of immersion in a subject. This puts pressure on teachers to ensure that students pass or in the absence of a pass it puts extra pressure on students in the event of re-sitting a supplemental examination following a January sessional examination, as they would more likely than not forget much of their surface learning.

A further measure introduced to help students achieve a better grade is the introduction of a greater component of continuous assessment for each course. In some cases the totality of marks is awarded for continuous assessments, in other cases this could be as low as thirty percent, but in general forty percent appears to be the norm. Ten years ago students in the College of Business were graded using eighty percent for the final examination and twenty percent for other components, which might have an unseen examination as one of those components.

Semesterisation also affected changes to the syllabi content. Most courses were truncated in an attempt to confine teaching to a shorter period; in some instances difficult concepts were removed from the syllabi and more was taught of less. In effect this diluted the content leaving the student with an unwarranted sense of achievement.

Dublin Institute of Technology is an autonomous body set up by statute. The management have the power to organise their own affairs under the direction of its own governing body. The Irish Government pay all costs incurred in the Institute and so as to minimise those costs they allocate a budget annually to the Institute. Remember the old adage which refers to paying the piper. The Irish Government is strapped for cash and, therefore, so also is the Institute due to the constraints affecting the paymasters.

As mentioned above the Irish Government has no real strategy for education in Ireland. Begley further informs us that the administrators in the Department of Education are very familiar with the primary and secondary levels and they treat all levels the same, with hands on management (Foley 2011). Consequently the Government has written into national wage agreements control methods which allow them to retain power over academics. Consider the assertion that if student evaluations were abandoned, administrators would be denied their principal control over academics (Cushman, 2003).

These external influences placed on Dublin Institute of Technology by the government are stifling creativity.

The Dublin Institution of Technology mission statement was altered this year, the only alteration since it was first introduced in 1994. The mission statement reads as follows:

> Located in the heart of Ireland's capital city, Dublin Institute of Technology provides an innovative, responsive and caring learning environment for a diverse range and level of programmes to students of all ages and backgrounds.
>
> In doing so, Dublin Institute of Technology:
>
> - combines the academic quality of a traditional university with career-focused learning, discovery and the application of knowledge;
> - emphasises excellence in learning, teaching, scholarship, research and support for entrepreneurship;
> - contributes to technological, economic, social and cultural progress; and
> - is engaged with and within our community.

This is a better version of that which went before it albeit with the same sentiments. As such the mission statement did not change over the period of study addressed herein.

Conclusion

The causes of grade inflation have been identified, means to correct that inflation have been identified and institutional measures in Dublin Institution of Technology to improve the lot of the student have been investigated. It is obvious that grade inflation exists. It is very much worse in America than on this side of the Atlantic. The Americans have two problems that we do not face. In the first instance the assessment by students becomes an input into the acquisition of a tenured position. This problem has not hit Ireland, yet. I have no doubt that in a few years that the administrators in the Department of Education will introduce a mechanism to effect this. In the second instance demand for marketable grades has not happened except in some post graduate courses which require personal funding by the students. Unfortunately the administrators have had a detrimental effect on education in Ireland, see Begley above.

In the next chapter I show how I proceed with my research, explain the rationale for the research and provide a description of the research it self.

Research Methodology

Introduction

Following the completion of the literature review, it is appropriate to proceed with the se1ection of primary research data (Schiffman and Kanuk 2000). This chapter concentrates on the research methodology used for investigating „Lecturer Perception of the existence of grade inflation in the College of Business Dublin Institute of Technology. The procedures and instruments used for the research are detailed in this chapter and the rationale for the type of research design chosen is also provided.

Research Problem

Defining the research problem is considered the most critical aspect in the research process (Tull and Hawkins 1990). It provides *'the starting point of all research and poses exceedingly difficult intellectual challenges'* (Brannick et al. 1997). The research problem proposed for this study has evolved from examining developments in the literature pertaining to grade inflation and from a comparison of grade awards in the sessional examinations in the college in 2000 and those awarded in the corresponding examinations in 2010. This examination identifies many grounds for the grade inflation phenomenon and these inform the research question and the sub objectives that follow. The following research problem sums up the essence of the research in a single sentence and sets out to establish the direction that the study takes (Creswell 1994):

> "To examine lecturer perceptions to the existence and causes of grade inflation in the College of Business, Dublin Institute of Technology and to compare those perceptions with the evidence of grade inflation."

In recent years, and in particular since the 1970s, second level grades and university grades have been on an upward spiral. This followed on from a period of grade deflation in the 1950s and early 1960s. While Rowntree, informs us that measuring grade inflation is fraught with difficulty, particularly when he makes the observation that students of different eras are not presented with the same examination. In fact traditionally a new examination is presented to successive cohorts of students.

Research Objectives

The research objectives represent concise statements reflecting detailed components of research problem (Maihotra 1996). Hypotheses are sometimes used as an alternative to objectives but are most often associated with studies which strive to test Theory (Bryman and Cramer 1997). They also „exhibit a potential disadvantage in that they may divert a researcher's attention too far away from other interesting facets of the data he or she has amassed' (Bryman and Cramer 1997). As this study does not set out to test the accuracy of particular theories, broader, more probing objectives were seen as more relevant.

In carrying out this investigation I chose to begin by examining the results obtained by students in the sessional examinations of 2000 in the College of Business Dublin Institute of Technology and comparing those results with students studying the same courses whose results were recorded in the sessional examinations of 2010. (I believe the comparison to be valid, even though in some cases these courses have differing course codes they do have similar course content in the main and a different cohort of students' results were used for comparison,). This establishes the base point for comparing actual grade inflation and the perceptions of the lecturing staff and leads us to establish sub objective one.

Sub objective 1: To establish and compare the average grade marks, the grade ranges and grade standard deviations achieved by students sitting examinations in courses, which continue to be delivered today, in Business from ten years ago (2000) with comparable results for the most recent graduates (2010).

As the literature alludes to measures taken by institutions attempting to retain students, it was determined that institutional attributes as influencers on grade increases be examined. This led to the establishment of sub objective two.

Sub objective 2: To establish and compare educational influencers on retention and lecturer attitudes to the educational attributes' affect on grade increases over the ten years 2000 to 2010.

O'Grady (2008) points out that students of varying abilities, as measured by their CAO entry points, achieved grades in the BSc in nursing which did not necessarily reflect their ability to perform in the Leaving Certificate Examination, but rather reflected the educational imperatives of the teaching institutions offering the nursing courses.

Sub objective 3: To investigate lecturer attitudes to these patterns in terms of:

a) Their levels of awareness of the problem
b) Perceptions of factors possibly impacting on these patterns such as:
    i) Institute initiatives in student learning support.
    ii) Institute initiatives in academic teaching support.
    iii) Changes in grading policies and practices.
    iv) Changes in syllabi content.
    v) External changes.

Research Design

The research design is a detailed blueprint which is developed to guide the research towards its objectives. (Aaker and Kummer 1998).It is important to develop an effective research design that is consistent with the study (Schillman and Kanuk 2000).

Research approach

Research may be classified as exploratory, descriptive or causal, exploratory research set out to provide insights or reasons for phenomena which descriptive studies observe and provides a better understanding of the problem at hand (Blumberg 2005). There is often little prior knowledge regarding the research problem and the researcher begins without preconceptions of that which will be found. As such an exploratory research is an unstructured approach to research which allows for interesting ideas and clues concerning the problem to evolve (Aaker 1998). Descriptive research is used in order to tell us *'how things are'* (Blumberg 2005). It allows for the description of who, when, where and sometimes how with regards to a particular situation (Mohammed et al. 2004). Causal research seeks to establish those variables that are the cause (independent variables) and those variables which are the effect (dependent variables) of a phenomenon (Malhotra 1996). As the requirement for evidence of causality is so demanding, hypotheses and associated research questions are usually very specific (Aaker et al. 1998).

Research Paradigm

In the I980s **a** „spirited debate' emerged on the appropriate methodological and philosophical underpinnings for social research (Hunt 1991: 32). Many authors began to strongly oppose the positivistic paradigm within social research and looked at alternative ways of seeking knowledge (Anderson 1986; Hunt 1991). This represented a major shift from the traditional positivist paradigms

that had dominated the discipline since the late 195Os. As a result varying methodological strategies are being pursued with respect to various „ways of knowing' (Hunt 1991).

Positivism and interpretivism are seen as the main ways of seeking knowledge within the social sciences (Ozanne and Hudson 1989) and various methodological strategies are based on these assumptions. Firstly the positivist tradition assumes that questions are grounded in evidence and is based on the premise of a realistic ontology (Brannick et al 1997). A realist ontology presupposes that a single reality, which is separable and divisible, exists (Ozanne and Hudson 1989). Furthermore, this external reality presents individuals with direct unmediated access to the real world (Brannick et al 1997). In contrast, interpretivism subscribes to a relativist ontology (Brannick et al 1997). A relativist ontology will assume that reality is socially constructed, multiple and must be viewed holistically. This reality is seen to be subjective and cannot be separated from its naturalistic setting (Ozanne and Hudson 1989). Facets of both positivist and interpretivist approaches are used in the current study.

In-depth interviews (interpretivism) (Schiffman and Kanuk, 2000; Tull and Hawkins, 1990) incorporating a mix of methods such as existential phenomenology techniques and usability testing methods (Internet research development methods) specifically, task based scenarios (Siegal 2004; Nielsen et al 2001; Dunliffe 2000) and the think aloud protocol (Nielsen et al. 2001), were used to assess consumers' behavioural, affective and cognitive responses. Based on the analysis of this in-depth research, quantitative online surveys (positivist tradition) were designed and administered to consumers.

For the purposes of this study I decided to do a quantitative study to elicit lecturers' perceptions of the grade inflation in The College of Business. This method was chosen because it is my preferred method of research, as I believe that it reflects my own capabilities and experience, this rational is quite common (Malhotra and Peterson 2006). In fact nothing exists which will predetermine the correct choice of research method, as one cannot decide whether qualitative or quantitative methods are more appropriate for a given study, although studies in economics are generally carried out using quantitative research methods while studies in anthropology are carried out using qualitative methods (Bloomberg et al 2005).

Sample

For this study I decided to ask all lecturing staff including heads of departments and heads of schools in the College of Business Dublin Institute of Technology to participate in the research by completing the questionnaire which was developed for the study. In effect I attempted to conduct a census of all academic staff in the College of Business. The sample size when corrected for absent staff is 132

people. Ordinarily researchers offer a an incentive to individuals, often in the form of an entry into a draw for some prize or other. This did not arise in the research at hand since while the participants were written to individually, as the total population was known, their replies were returned anonymously and an incentive could not therefore be offered.

Data Collection Method

Originally an on-line survey was envisioned as the respondents could make their replies at their ease and the data could be collected electronically. A number of problems arose with method of data collection. The first problem was mainly due to the coding of the questionnaire so as to fit it on proprietary software. Most questions were easily coded for inclusion in the online survey. In one case I had been too ambitious and sought to provide sliding scales so that respondents could easily reply to a constant sum question. The question was to ask respondents to score attributes so as to identify the relative importance of those attributes in relation to each other in a manner that the cumulative scores would add up to one hundred. A questionnaire review group rightly criticized the inclusion of the question on the grounds that respondents might experience difficulty in ensuring that the sum of the scores assigned to the attributes could total one hundred. The question or questions sought that respondents would rank order the attributes, there is some controversy over rank ordering of attributes for example is that attribute that the respondent feels is the most important/least important present (Malhotra and Peterson 2006).

The second problem identified by colleagues pertains to online questionnaires themselves, The response rate for online surveys is thought to be so low as to not allow any meaningful analysis form the small cohort of academic staff in the School of Business Dublin Institute of Technology. So I decided that I should mail the physical questionnaire to my colleagues hoping to obtain a reasonable response. When all questionnaires were returned they numbered sixty six, this represents exactly fifty percent of the population, a figure regarded by many as exceptional. It is probable that the subject matter and the topicality of the questionnaire inspired my colleagues to reply. I did not fill out a questionnaire myself except to determine the time required to complete it (and then I destroyed it), a colleague also completed the questionnaire so that the average length of time to complete it could be determined. The two timing results were used as a basis for advice to the respondents.

Pre-testing and Piloting

As a general rule one should not run a questionnaire until it is extensively pre-tested, for all aspects of a questionnaire including question content, wording, instructions, sequencing, question layout and question difficulty, should be tested (Malhotra and Peterson). Pre-testing was carried out on the

questionnaire at hand with the 2010-2010 Masters in Education cohort in Dublin Institute of Technology. This pre-test occasioned some modifications to the questionnaire. In particular the ranking questions in which the sum of all the scores allocated to each attribute was to add to one hundred, also known as constant sum scales. Those who evaluated the questionnaire for pre-testing in this instance, almost to a man, stated that they would find such a task difficult to do. When I decided to use hard copies for the questionnaire, I attempted to carry out the exercise of assigning scores to each attribute so as to have a total score of one hundred and found that it was a time consuming and difficult task. So a simple rank order was chosen as a mechanism for determining the importance each respondent would choose. Further we are informed that the constant sum scale should be considered as ordinal in that the results of the ranking could just as easily be expressed in letters or any symbol and that the ranking shows one is greater than another but not necessarily measurably different (Malhotra and Peterson 2005)

A second pre-test was undertaken with academics who have expressed an interest in research and in questionnaire design. It was their encouragement which ensured more than anything else that the questionnaires should in hard copy. Further they offered advice on the sequencing of the questions and suggested alterations to some words. Interestingly a question which proved problematic in the coding, since various interpretations were taken by respondents, was accepted by both pre-test groups. In all the questionnaire was pre-tested by fourteen individuals, nine whose focus is mainly on qualitative research and five whose focus is mainly on quantitative research.

Questionnaire Layout and Routing

The questionnaire is laid out in six sections as follows:

Section 1:	Personal statistics
Section 2:	Perceptions on the existence of grade inflation over the ten year period to 2010.
Section 3:	Perception of the effects educational attributes have on Grade inflation.
Section4	Respondents education in education history.
Section 5:	Perception of the effect institution actions have on Grade inflation.
Section 6:	A simple ranking of 3 and 5 above.

Section one is broad in outlook in that it seeks to determine how many years that individuals work as lecturers, the grade of lectureship, their sex and the subject area that they teach. Section two seeks to elicit respondents' beliefs on existence or otherwise of grade inflation in the respondent's own area of study and in the College of Business in general. Section three asks the respondents to indicate how much educational attributes lead to grade inflation and then to rank order those attributes. Section four seeks to determine whether or not respondents have received any formal training in the last ten years.

Section five asks the respondents to indicate how much institutional actions lead to grade inflation and then to rank order those actions. Section six seeks to place a perceived ranking of educational attributes and institutional actions as contributors to grade inflation.

The questionnaire is marginally over three pages in length and as it is short it was estimated that it could take not more than seven minutes to complete carefully. It contains twenty seven questions although these were combined to produce a list of seventeen questions.

Here I have defended my choice of research vehicle and described and laid out the research question, research objectives and the sub objectives. I like the certainty associated with simple mathematics, for example the fact two plus two equal four. The methodology pursued, the population, how data it was collected, the questionnaire design ware all explained. With the data collected the analysis was undertaken and this is shown in the next chapter.

Analysis and Findings

This dissertation has two sections of analysis:
1) the analysis of the results achieved by students in their sessional examinations in the year 2000, which are compared to the results from sessional examinations achieved by students in the academic year ended 2010. All of the data, pertaining to sessional examination results, available for analysis came from the College of Business computer storage server on which the School of Marketing and the Schol of Retail and Services hold records of past examination results. This is supplemented by data from the Dublin Institute of Technology which was presented to the Irish Times and additional data collected by Dublin Institute of Technology for its own research; and
2) the analysis of the questionnaires completed by respondent lecturers in the College of Business, Dublin Institute of Technology, which purported to measure the attitudes of the respondents quantitatively and to elicit some data pertinent to those attitudes.

Part one the analysis of examination results

In this first part of the analysis I extract the average mark achieved by students who passed their sessional examinations, in the academic year 1999-2000, in the School of Marketing and the School of Retail and Services and I compare those results using some statistical tools to assist me in determining whether (or not) there has been an upward shift in the grades achieved by the candidates of the schools, with the average grades achieved by students in the academic year 2009-2010. I have used the results achieved by students of the schools mentioned as I was unable to obtain comparable results from other schools in the College of Business. The results in all the following cases are for people who passed their examinations and not those who failed to pass at the sessional sitting of the examinations.

At this juncture I offer a short note on the statistical measures that are used in the evaluation of the student grades. The mean measures the average mark achieved while the mode measures that value or mark which occurs most frequently and the median represents the mark which occurs in the middle of a set of data when the data is arranged in ascending order; all three are measures of central location in a data set (Anderson, Sweeney and Williams 2002). The standard deviation is the positive square root of the variance, which itself measures the variability of the data, and the coefficient of variance measures how large the standard deviation is in relation to the mean (Anderson, Sweeney and Williams 2002). The coefficient of dispersion or variation is a useful measure in determining the

relative dispersion of a distribution, particularly when two or more distributions are being observed. This is simply a ratio of the standard deviation and mean expressed as a percentage (Lucey 1998).

The skewness, the kurtosis and the coefficient of variation are measures of relativity; their use is explained here. The skewness measures the lack of symmetry in the data set and occurs where the mean, mode and median are different; the data is said to be negatively skewed where the mode and the median are greater than the mean and positively skewed when the opposite occurs. The existence of negative skewness suggests that there is a greater concentration of observations above the mean while the observations below the mean tend to tail off towards the lowest observed result. Skewness is usually treated in descriptive terms rather than a single figure, due to its limited practicality (Lucey 1998). The kurtosis is a measure which shows the relative peakedness of the distribution, near the mean of the distribution of the observations. When the relative peakedness is flat the distribution is said to be a platykurtic distribution, as is the case with most of the results observed in this evaluation of student results. This in turn means that many of the observations about the mean occur with similar frequencies (Lucey 1998), for example in a platykurtic distribution we could expect that if twenty candidates scored forty five percent then a similar number could also score fifty percent, fifty five percent, sixty percent and perhaps sixty five percent, with fewer candidates scoring above or below those scores mentioned above.

Table 1

A comparison of the average grades achieved in 2000 and 2010 in the BSc Management and Marketing.

DT 542 2000		DT365 2010		Difference	
mean	53.39744	mean	56.30719	mean	2.909754
mode	55	mode	56	mode	1
median	54	median	56	median	2
kurtosis	0.205694	kurtosis	0.051918	kurtosis	-0.15378
skewness	0.10004	skewness	0.308702	skewness	-0.40874
std dev	6.007225	std dev	9.299322	std dev	3.292097
count	78	count	153	count	75
coefficient of variation	11.25002	coefficient of variation	16.51534	coefficient of variation	5.265312

These results show that the mean increased by five point four-four percent, a figure which is not hugely significant in itself but when added to the increase in the standard deviation they show that there has been some increase in the grades achieved by the two cohorts of students. Further there is a move from positive to negative skewness, which suggests that higher grades seem to be capped. The coefficient of variation suggests the results achieved in 2010 are more variable than those achieved in

2000. The lower kurtosis figure suggests that the results achieved in 2000 are taller about the mean than those results achieved in 2010.

These figures become more meaningful when we look at the number of candidates who achieved the various academicgrades and in particular the percentage of candidates who achieved those grades. These are shown below:

Table 2

Statistics for students completing their examinations for DT 542 2000

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	No. firsts
9	55	33	3	7	43	26	2

Table 3

Statistics for students completing their examinations for DT 365 2010

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	No. firsts
10	35	35	19	16	53	53	29

The percentage of students achieving firsts has risen from three percent to nineteen percent, this represents more than a six fold increase in first class honours between 2000 and 2010 in the BSc in Management and Marketing course. It can be observed that there was also an increase in the second class honours grade two, in this case the increase is a mere thirty one point two percent increase. The evidence here is that there was a substantial increase in the first class honours grades which were awarded; contrast that with the evidence experienced by students in the BSc in Marketing. A caveat must be entered here: in 1996 the points required by students to enter this course were 375 while by 2006 they had increased to 410; this represents a nine point three-three percentage increase in entry points, which may partially or fully explain the improvement in the grades achieved by the later cohort of students. There is an argument which suggests that the points requirements are representative of the demand for a particular course and this may be the cause of the increase in the points required for registration in the later year of 2006 four years before the students sit their final examinations.

Some other interesting results are to be observed from the data used, for example in the course BSc in Marketing, the following data arise from an investigation in:

Table 4

A comparison of the average grades achieved in 2000 and 2010 in the BSc Marketing.

FT541 2000		DT341 2010		Difference	
mean	58.92769	mean	57.67105	mean	-1.25664
mode	57.21	mode	61	mode	3.79
median	59.63	median	58	median	-1.63
kurtosis	0.20787	kurtosis	-0.093138	kurtosis	-0.30101
skewness	-0.25842	skewness	-0.445137	skewness	-0.18672
sdt dev	5.595328	sdt dev	7.022608	std dev	1.42728
count	117	count	76	count	-41
coefficient of variation	9.495243	coefficient of variation	12.17701	coefficient of variation	2.681763

(Please note that the course codes change between the two periods above; this change was necessitated by the rationalization of the Dublin Institute of Technology course offering for the Central Applications Office for third level places).

From the above it can be noted that there is little by way of variation in the overall results as the figures as presented show only minor differences between the two sets of results. The mean and the median results have both decreased over the period as have the kurtosis and the skewness. The kurtosis measured for the 2010 observations is negative in this instance; this result is that which Microsoft Excel package produces, suggesting that the distribution is relatively flat about the mean. When there is avalue of three for the kurtosis it means that the distribution is normal.

This results can be viewed in a different way, when a comparison is made between the actual results achieved in 2000 in percentage terms and those achieved in 2010 we obtain the following:

Table 5

Statistics for students completing their examinations for DT 541 2000

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	No. of firsts
2	20	66	13	2	23	77	15

Table 6

Statistics for students completing their examinations for DT 341 2010

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	No. of firsts
4	32	53	12	3	24	40	9

The above suggests that the students who completed their examinations in 2000 achieved higher marks to those who completed their examinations in 2010. This is an interesting statistic in that the Leaving Certificate points requirement for students entering the College of Business in 1996 were only very slightly lower than points required in 2006. In 1996 (most degree students graduating in 2000 sat their Leaving Certificate examination four years earlier), the BSc in Marketing had a 385 points requirement while the points required to enter the course in 2006 were 390. These points requirements represent the demand for courses more than the educational standard required to complete a particular course; this is partly evidenced in that there were more candidates examined for the BSc in Marketing course in 2000 than in 2010 and the numbers passing the examination rose from seventy six to one hundred and seventeen. These results directly above are the exception, all other courses produced evidence of increased grades between the years 2000 and 2010, see Appendix II for a breakdown of the figures for the Certificate in Marketing, the Certificate in Retail Management and Marketing and the Certificate in Business Management.

In a study of Leaving Certificate grade inflation between 1992 and 2006 it was noted that there was a continuous upward trend in Leaving Certificate points achieved by students. In the period in question the points increased for the A and B grades combined from twenty six percent of the total grades to forty two percent and from the data presented (O'Grady 2009) one can deduce that in the period 1996 to 2006 the points achieved by graduates when they entered third level education (because the degree courses in the College of Business take four years to complete), rose from thirty two percent to forty two percent, an increase of almost a third – in fact an increase of thirty one percent. On that basis one would expect that students studying for a BSc in Marketing would have required at least 510 points i.e. 390 plus thirty one percent. The final results for students studying for the BSc showed no difference over the period 2000 and 2010.

Other courses show varying levels of apparent grade inflation, for example an analysis of the student grade results in the Certificate in Marketing for the two years in question give the following tables:

Table 7

Statistics for students completing their examinations for DT 502 2000

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	No. of firsts
11	31	49	6	4	11	17	2

Table 8

Statistics for students completing their examinations for DT 303 2010

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	No. of firsts
8	41	33	18	3	16	13	7

Clearly we conclude that there has been an increase in both the number of distinctions awarded but, more importantly, the relative number of distinctions awarded. There has been a threefold increase in the percentage of firsts awarded, i.e. from six percent to eighteen percent. Perhaps it is worth noting that when students graduate with a distinction they are afforded entry to a degree course at an advanced level.

For ease of comparison I have amalgamated all the average marks for final year successful students in the two years 2000 and 2010 in the School of Retail and Services so that a comparison could be made to ascertain whether grade inflation occurred or not. The results are as shown below:

Table 9

Statistics pertaining to the average mark obtained by students in the School of Retail and Services in 2000.

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	No. of firsts
7	31	49	13	11	46	73	19

Table 10

Statistics pertaining to the average mark obtained by students in the School of Retail and Services in 2010.

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	No. of firsts
10	21	41	26	13	29	56	35

A comparison of the above tables shows very clearly that there has been a relative doubling of the distinction and first class honour grades between 2000 and 2010. I feel that it is unimportant to separate out the level 6 and level 8 courses, they are combined in the tables shown below and the results are appropriate to the study at hand.

While we cannot add percentages as if they were scalar we can eyeball them and made deductions from them. For the courses DT303, DT341 and DT365 the percentage increases over the ten year period for first class honours and distinctions are as follows: six to eighteen percent, thirteen to twelve percent (a reduction on a reduced cohort) and three to nineteen percent. Put these with the global figures for the courses in Retail and Services which are: thirteen to twenty six percent. All these represent more than a doubling of the percentage of firsts and distinctions awarded i.e. one hundred and eleven percent. An analysis of the charts in the appendices will confirm this (see table 11 below). It must be noted that none of these courses are accountancy based and the results that an examination of the School of Accountancy would undoubtedly dilute that to produce a lower rate of growth in firsts. Couple that information with that which Dublin Institute of Technology student services

provided me, without solicitation, which shows that there has been an increase of fifty four percent in first class honours and distinctions awarded by Dublin Institute of Technology in the period from 2004 to 2010, then one can be in no doubt about the existence of increases in firsts awarded and, in turn, grade inflation.

Table 11

Summation of observed results	No. of Passes	No. of 2.2	No. of 2.1	No. Of Firsts
	24	123	193	38
	35	122	162	80
Differences	11	-1	-31	42

The Student Services Department in Dublin Institute of Technology supplied some information for the current research. That information is shown in its entirety in Appendix IV. Although the information provided does not cover the period in question it is very relevant in that it shows the breakdown of grades achieved by graduates of Dublin Institute of Technology between the years 2004 and 2010.

The data as presented does not allow us to extract information which will inform us as to what percentage of students achieved first class honours in each year since the total graduate figure includes individuals graduating with primary degrees, masters degrees, certificates and diplomas. The data is useful in that we can observe the percentage increases over the period in both the first class honours category and in the first class honours combined with the distinction category. As a percentage of the total graduates in 2004 those with a first class honours represent six point seven percent while in 2010 that figure is ten point three percent. This represents an increase of fifty four point three percent on the results achieved in 2004. In combining first class honours awards with distinctions the corresponding percentages are: fourteen percent, seventeen point five percent and twenty five point two percent increases and although not as dramatic as the results for level 8 and level 9 students they are significant. As we are unable to separate out the results for those who completed each of level 6, 7, 8 and 9 into separate categories, we should accept the finding that in general there has been an increase in grades over the period 2004 and 2010, (further I am unsure that such a separation would be any more helpful in that if the results are lower in one category then the results would be higher in another).

Table 12

Year	Total Graduates	First Class Honours	2.1 Hons	2.2 Hons	Distinction	Merit Upper Division	Merit Lower Division	Pass
2004	4301	289	1009	587	312	660	562	882
2005	4143	329	1084	604	305	638	461	722
2006	3807	317	1049	640	272	500	416	613
2007	4296	356	1150	783	335	679	483	510
2008	4276	379	1216	728	375	615	444	519
2009	4341	442	1242	722	399	576	435	525
2010	4013	416	1339	807	286	492	401	272

Please note that many post graduate awards do not attract a classification other than a pass.
Please note that for classification purposes, level 8 and level 9 awards attract a classification of:

- First Class Honours
- 2:1 Honours
- 2:2 Honours
- Pass

Please note that for classification purposes, level 6 and level 7 attract a classification of:

- Distinction
- Merit, Upper Division
- Merit, Lower Division
- Pass

Source: Student Services Department in Dublin Institute of Technology.

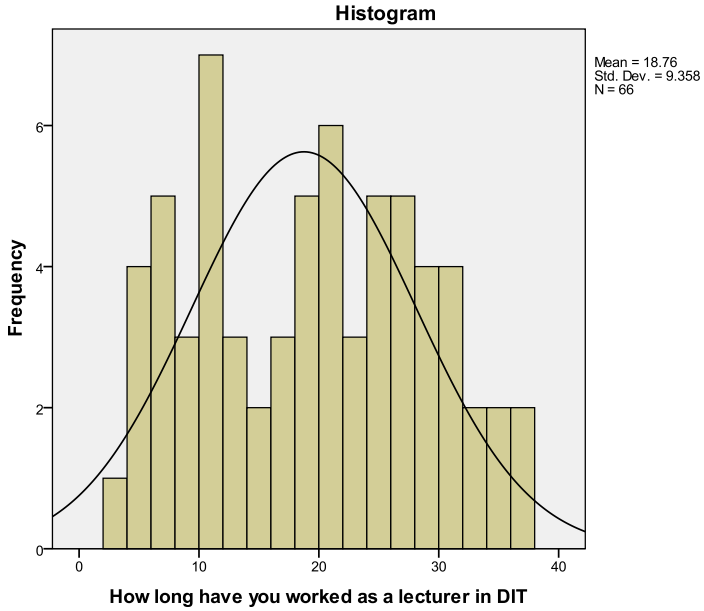
Part two the examination of questionnaire data

In this part the completed questionnaires are analysed to assess the perceptions of the respondent lecturers in the College of Business, Dublin Institute of Technology. In all, sixty six lecturers completed and returned the questionnaires. A copy of the questionnaire is to be found in Appendix I.
It is reasonable to begin the analysis by looking at some data obtained from the frequency tables.
The outputs from the analysis are available in Appendix III.

Questions one and two

Question one sought to find out how many years teaching experience each respondent had and question two sought to find the number of years that each respondent taught in Dublin Institute of Technology. Histograms showing the length of teaching service both in Dublin Institute of Technology and in total are available in Appendix IV; one of these is shown below.

From Appendix IV we note that there is a good spread in the number of years that lecturers have worked in Dublin Institute of Technology, see below:



The curve in the diagram represents a normal distribution, not that it is needed to demonstrate the length of service provided by the responding lecturers. This spread of experience in Dublin Institute of Technology is almost evenly spread into three categories: twenty two have worked between one and twelve years, twenty three have worked between thirteen and twenty four years and twenty one have worked between twenty five and thirty six years.

When we compare the number of years that people worked in Dublin Institute of Technology with their total number of years teaching we observe that on average lecturers spend one and one third years lecturing elsewhere, so it is fair to say that vast majority of each lecturer's teaching has occurred in Dublin Institute of Technology.

The population of lecturers is one hundred and thirty one, excluding me; of those fifty seven are female and seventy four are male. The respondents to the questionnaires are twenty nine female and thirty seven male, the responses of the differing sexes almost exactly corresponds to their representation in the census population at hand.

Question three

This question was included to determine whether respondents taught discursive or numerative subjects. Economics, while mainly discursive is included with the numerative subjects in the literature since it appears that those who teach economics agree with those who teach numerative subjects, in that they contend that there has been little by way of grade inflation in their subject area. The responses received were coded by me into three categories to include those above and a combined category. I made a judgement on the subject taught and then placed the response in the appropriate category. There was an anticipation that the lecturers teach one or, at most, two subjects and that this would lead to a simplification of the categorisations. In fact some respondents filled out the list of subjects that they teach, some of which were placed in two categories so as to capture the breath of the subjects taught. Two individuals did not state the subject they taught. There was a slight overlap of responses as more than one category was assigned to the responses. In total there were seventy two assignable responses the largest category is discursive with forty responses, twenty five teach numerative subjects and seven teach economics.

Question four and five

The representation of the sexes and the grades at which the respondents work are broadly in line with the overall gender balance and lecturing grades in the College of Business. There were five head of departments, seven senior lecturers, forty lecturers and fourteen assistant lecturers. No head of school responded to the questionnaire.

Question six

Sixty five percent of the respondents replying to question six which asks: Do you believe that, in general, more first class honours have been achieved by students in your subject area in the year 2010 when compared to the number of firsts achieved in the year 2000, confirmed that they did believe that the number of first class honours did increase between the two periods. Thirty five percent thought not. Sixty three respondents answered this question.

Question seven

Of the respondents who answered question seven, which asked individuals to place a value on the increase in inflation in their own subject, forty eight percent believed that the grades increased by twenty five percent and twenty six percent believed that the increase was of the order of fifty percent. These two increases account for nearly seventy five percent of the replies. Thirty nine respondents answered this question.

Question eight

On the other hand question eight, which sought information on the respondents' beliefs in the increase in firsts in all subject areas, one individual annotated his questionnaire with a comment stating that the subject taught by him was not examined in the final years, ninety two percent believed that there were increases and six percent believed that no increases occurred. Fifty three respondents answered this question.

Question nine

Of the respondents who answered question nine, which asked individuals to place a value on the increase in inflation in Dublin Institute of Technology in general, forty percent believed that the grades increased by twenty five percent and forty two percent believed that the increase was of the order of fifty percent. These two increases account for over eighty percent of the replies. Forty eight respondents answered this question.

Question ten

This question caused confusion to many and especially to me in that I experienced great difficulty in analysing it. I had anticipated that respondents would use the information in question nine and indicate whether the percentage increase chosen in that question was either too high, high, acceptable, low or too low. Twelve of the respondents did answer in accordance with my anticipation and a further forty gave information which enabled me to assign their intentions. Twenty responded stating that the percentage noted was too high, three of whom thought that firsts did not increase over the ten year period, thirty two indicated that the inflation was adequate. For this exercise the measure too high was combined with high to provide a new category called high and the other measures were combined to a category called acceptable. The result is depicted below:

Table showing ones believe that more first class honours have been achieved by students in the College of Business generally, in the year 2010 when compared with those achieved in 2000. Cross tabulated with percent which is thought to be too high or acceptable

		High	Acceptable	Total
Do you believe that more first class honours have been achieved by students in the College of Business generally, in the year 2010 when compared with those achieved in 2000.	no	3	0	3
	yes	17	32	49
Total		20	32	52

Questions eleven and twelve

From the literature review it was ascertained that seven educational attributes may be causes of grade inflation. They are: better quality students, better learning techniques, better teaching techniques, easier access to learning material, less material to learn, easier material to learn and better overall learning environment. Respondents were asked, in question eleven, to assess the impact the above attributes have on grade inflation using a scale ranging from not at all through to a little to a lot and finally to immensely. The scale used for assessment was reversed for every second attribute.

All respondents answered this question, in fact there are seven questions in question eleven masquerading as one. One could assume that by answering this question that the respondents accept that grade inflation does in fact exist. The same argument will be used later when commenting upon questions fifteen and sixteen.

Question twelve requests of the respondents that they rank order the attributes shown above. The attributes in question twelve were in a different order than those in question eleven so as no to suggest a ranking on my part. Rank can be problematical in that most will be confident in assigning the most important rank and perhaps have less confidence in determining the next most important attribute and so on down until items are ranked just to complete the task. Some respondents ranked on the attributes which contributed most and second most to grade inflation only. The table below shows the percentages assigned to ranking by respondents. Thirty five percent of respondents ranked the attribute better overall learning environment as the number one attribute that they perceived led to increases in grades achieved by students while thirty percent ranked the less material to learn as the number one attribute that they perceived led to increases in grades achieved by students. Sixteen percent thought that easier material to learn was the major contributor, while thirty four percent thought that this was the second greatest contributor. Obviously, one could continue to look for an explanation for the increase in grades awarded by analysing the figures below. It would be better to look at each attribute to assess its impact. For instance, look at the attributes better learning techniques and better teaching techniques. Perhaps lecturers have a jaundiced view of students' learning techniques and if they do they have a poorer opinion of their own teaching techniques.

Summation of responses to question twelve

	1	2	3	4	5	6	7
Rank for better quality students	13%	10%	12%	20%	15%	23%	7%
Rank for better learning techniques	12%	17%	17%	29%	17%	7%	2%
Rank for better teaching techniques	3%	10%	3%	2%	21%	9%	52%
Rank for easier access to learning material	9%	16%	21%	24%	16%	14%	2%
Rank for less material to learn	30%	13%	31%	15%	10%	2%	0%
Rank for easier material to learn	16%	34%	7%	2%	9%	21%	11%
Rank for better overall learning environment	35%	20%	9%	7%	4%	11%	15%

It is at this point that it is worth looking at the effect educational courses have had on the increases in grades. A few who have not attended any educational course believe that better learning techniques have contributed to grade increases. The vast majority believe that better learning techniques did not contribute. See the table below.

Contrast that with the perceived effect that better teaching techniques had on the increase in grades over the period 2000 to 2010. There is not a lot of difference between the two graphs. There will be more on these issues below.

Table showing the relationship between attendance at any course on education in the last ten years by the respondent and the effect better learning techniques contributed to grade inflation.

		Have better learning techniques contributed to grade inflation		
		Not at all/A little	A lot/Immensely	Total
Have you attended any course on education in the last ten years?	No	15	3	18
	Yes	32	16	48
Total		47	19	66

Table showing the relationship between attendance at any course on education in the last ten years by the respondent and the effect better teaching techniques contributed to grade inflation.

		Have improved teaching techniques contributed to grade increases		
		Not at all/A little	A lot/Immensely	Total
Have you attended any course on education in the last ten years?	No	12	6	18
	Yes	34	14	48
Total		46	20	66

Questions thirteen and fourteen

The rationale for question thirteen was that curiosity got the better of me, so I felt compelled to include a question on the lecturers' own education in education. The question does not seek to establish the complexity or otherwise of the course at which the respondent attended, but it sought to ascertain if the respondent took any action in their own education in education. In fact, a one day seminar presumably would qualify for a positive response as would a post graduate course. Dublin Institute of Technology introduced educational courses for its educationalists in 2000. About one hundred and eighty people have attended courses in education, which were offered to staff initially on a voluntary basis and subsequently became a compulsory requirement for continuing employment for new recruits. Educationalists obviously believe in education as seventy three percent, or forty respondents, did attend an educational course within the past ten years.

All the respondents who answered yes to question thirteen answered question fourteen. Of those who answered, fifty seven percent indicated that the course attended helped them in their teaching a little, twenty four percent indicated that their attendance helped then a lot and fourteen percent found the course immensely helpful.

Questions fifteen and sixteen

From the literature review it was ascertained that five institutional attributes may be causes of grade inflation. They are: college grading policies, institutional measures to retain students, permission to allow students to carry subjects, the appeal process available to students and recommendations by external examiners to modify examination results. Respondents were asked in question fifteen to assess the impact the above attributes have on grade inflation using a scale ranging from not at all through to a little to a lot, finally to immensely. As with question eleven the scale used for assessment was reversed for every second attribute.

As occurred in question twelve all respondents answered this question, in fact there are five questions nested in this question. Again, one could assume that by answering this question that the respondents accept that grade inflation does in fact exist.

Question sixteen asked the respondents to rank order the institutional attributes listed above.
A glance at the table below shows very clearly that college grading policies and institutional measures to retain students are considered by most to be the foremost causes of grade inflation for these attributes. Permission to allow students carry subjects and the appeal processes available to students appear to have some effect on the upward increase in grades.

Summation of responses to question fifteen

	1	2	3	4	5
College Grading Policies	54%	31%	7%	7%	0%
Institutional measures to retain students	45%	34%	11%	6%	4%
Permission which allows students carry subjects	14%	29%	20%	23%	14%
The appeal processes available to students	11%	35%	30%	19%	5%
Recommendations by external examiners to modify examination results	15%	15%	3%	15%	53%

Question seventeen

This is a very simple rank ordering question. In effect all that was required was for the respondent to assign a 1 to the answer. The response to this question was one emphasising the belief that institutional attributes were the greatest cause of grade increases. Unfortunately, one cannot quantify how much more institutional attributes contributed to the grade increases than did the educational attributes; it is in a case such as this that the constant sum question could possibly provide some valuable insight. The table below shows clearly the respondents' beliefs. Fifty five people believe that institutional attributes are the greater cause of grade increases.

Summation of responses to question seventeen

A rank-order the educational and institutional attributes in order of their contribution the increase in grades achieved by students

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Institutional attributes	55	83.3	83.3	83.3
	Educational attributes	11	16.7	16.7	100.0
	Total	66	100.0	100.0	

From Appendix III we can observe that there is a difference between the sexes on this issue. However, when we cross tabulate lecturer grades we find an interesting difference as is shown below:

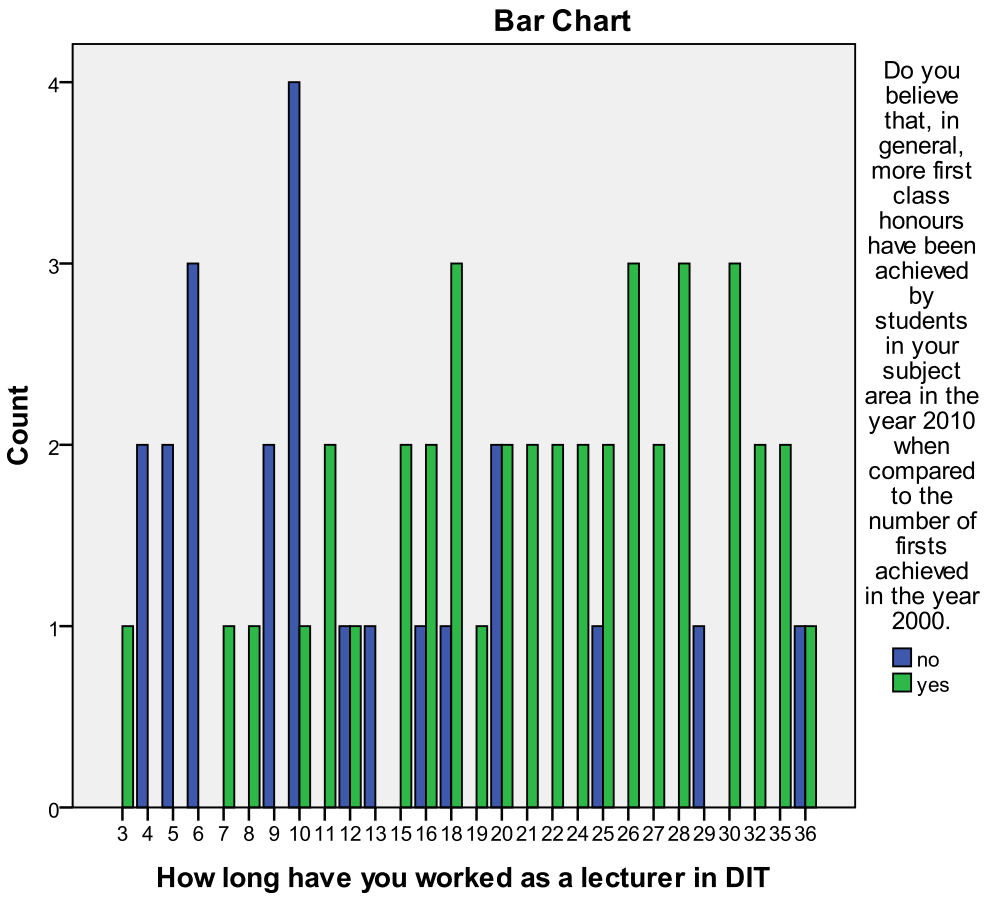
Cross tabulation of the educational versus institutional attributes in order of their contribution to the increase in grades achieved by students and lecturer grades.

		Senior Lecturer II	Senior Lecturer I	Lecturer	Assistant Lecturer	Total
Please rank-order the educational and institutional attributes in order of their contribution the increase in grades achieved by students	Institutional attributes	5	3	35	12	55
	Educational attributes	0	4	5	2	11
Total		5	7	40	14	66

All senior lecturer IIs, i.e. those in management, believe that institutional attributes are the major cause of the presumed grade increases. The count here is very small and no real inference can be obtained from the chart. As opposed to that senior lecturer Is are mainly, by a small margin, of the opinion that educational attributes caused the grade increases. The chart showing the break down of ages and the replies to question seventeen suggests that there is a constancy of opinion spread evenly across the age cohorts.

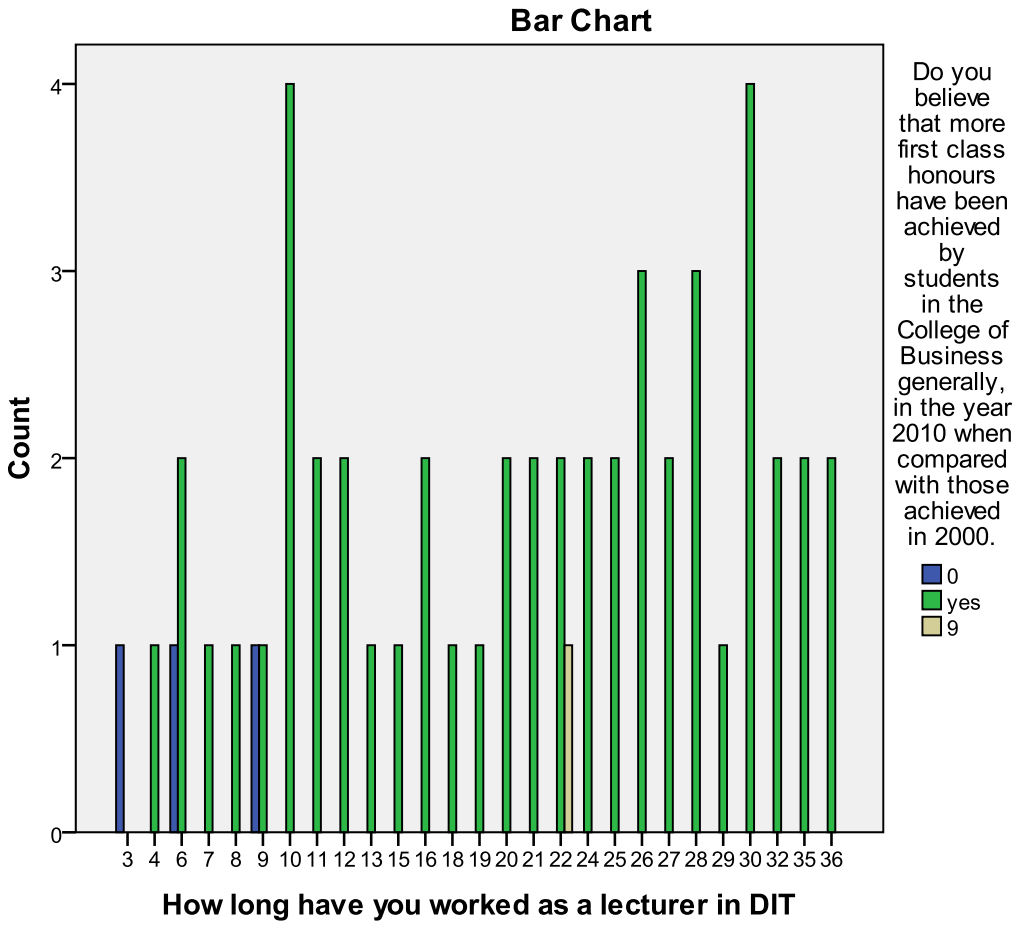
Now we shall move on to additional analyses. Below is a chart depicting the cross tabulation between the respondents length of lecturing in Dublin Institute of Technology and their perception of first class honours increases in their own subject area over the ten years 2000 to 2010. It appears that the shorter the service of the respondent the less the belief that there is an increase in firsts. The corollary is true as well.

Cross tabulation of question two and question six responses



Compare the chart above with that shown below and note that respondents' perceptions changed considerably when they were asked about the grade increases, in the first instance beliefs in the existence of grade increases in the respondents' own subject area and in the second instance beliefs in grade increases in general. One can only surmise that lecturers feel that their own subject area is marked very closely and their own marking scheme is adhere to rigorously and is constant and that they assume that all other subject areas are not so assiduously marked. No reason can be deduced from the data, so the surmise is mine alone.

Cross tabulation of question two and question eight responses



For the analyses that follow below the evaluations „not at all' and „a little' were combined and the evaluations „a lot' and' immensely' were combined so as to make each table more manageable. The assumption here is that the evaluation a lot has much more of an effect than a little. Although there were four points on the ordinal scale they are not additive *per se*, so a value judgement was made and the values combined as above.

From the table showing a combination of respondents' subject areas, their working experience and their perceptions as to the ranking of educational attributes' effect on grade inflation, we can observe the following: for those who teach discursive and those who teach numerative subjects easier access to learning material is seen as having the greatest effect on grade increases, albeit only marginally. While for economics lecturers the perception is that less learning and lack of difficulty are the major movers in the increase in grades. In fact, the majority of respondents view easier access to learning material to be the most instrumental in the grade increases. Perhaps the most telling observation to be deduced from the table is that all respondents give the least credence to better quality students having

an effect of the upward movement of grades. This is borne out when we look at the table showing how „better quality students' have impacted on the results achieved by students in the College of Business and the ranking for better quality students Cross tabulation.

From the table below, which shows a combination of the respondents' subject areas, their working experience and their perceptions as to the ranking of institutional attributes' effect on grade inflation, we can deduce the following: the college grading policies and the institutional measures to retain students appear to be those that mostly contribute to grade inflation. This is the case right across the board except where the respondents' experience increases there is a stronger correlation between the more experienced lecturers and the belief that college policies have created an upward pressure on grades. A similar observation is to be made on the issue of institutional measures to retain students. This is clearly shown below:

Table showing a combination of college grading policies and the rank-order assigned showing the perceived effect on the increases in grades.

		College Grading Policies				Numbers
		1	2	3	4	Total
institutional attributes: please indicate how the following has impacted on the results achieved by students in the College of Business generally, College Grading Policies	Not at all	6.5%	5.9%	.0%	.0%	4.6%
	A little	.0%	11.8%	50.0%	25.0%	16.9%
	A lot	45.2%	64.7%	50.0%	50.0%	49.2%
	Immensely	48.4%	17.6%	.0%	25.0%	29.2%

At no point are either college grading policies or institutional measures to retain students defined for the respondents. It is known that the College of Business has instituted measures to assist students who experience problems, particularly with numerative subjects. It is also known that the institute has initiated a number of initiatives to help improve the quality of lecturing in the institute, from the introduction of one day seminars on improving teaching techniques through to extensive courses in post graduate learning and teaching. There is a possibility that lecturers may indeed have had other issues in mind when assigning their beliefs to the questionnaire such as pressure to retain students in the system by affording students every opportunity to pass their subjects. One respondent wrote on her questionnaire that the real cause of grade inflation was the greater weighting given to continuous assessments as a percentage of the overall score. In some instances, whole modules are graded solely on continuous assessment components. In many the continuous assessment component accounts for between thirty and fifty percent of a module mark. One other issue that has arisen in the recent past

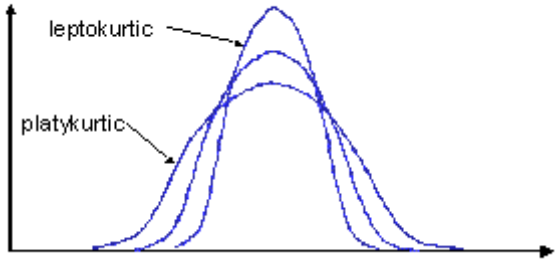
and has continued to develop is the introduction of modularization. In some instances modules may six weeks plus review week and examinations, in others in twelve weeks plus review week and examinations or even over the full academic year of twenty four weeks plus examinations and review weeks. It is arguable that the short modules favour students how experienced the rote learning of the Leaving Certificate and they can temporarily regurgitate their learning or memorising to give a semblance of knowledge. This modularization may also have led to a watering down of course contents to ensure that students could get a better understanding of that content.

Overall Findings

It would appear that grades did in fact increase over the years from 2000 to 2010. This has been shown for all College of Business courses evaluated, except one course where the entry points dropped from 390 in 1996 to 385 in 2006. For this course, if we are to accept the findings of O'Grady (2009) in his study into grade inflation in the Leaving Certificate Examination from 1992 to 2006 we should expect an entry requirement of 510 points in the 2006 intake of students if we were to compare students of similar ability, assuming the increase shown by O'Grady is real.

The perception held by lecturers in the College of Business is one of confirmation that grade inflation does in fact exist. The actual quantification of this increase in grade inflation was not sought. Most, thirty two respondents from forty eighty valid responses, indicated that the percentage noted by them was acceptable. That percentage lay between a measure of twenty five percent grade inflation (forty percent agreeing with this measure) and a measure of fifty percent grade inflation (forty two percent agreeing with this measure).

A number of findings surprised me. The first finding arises from the statistical examination of the examination results achieved by the two cohorts of students. Kurtosis measures peakedness and it is used to describe the distribution of observed data around the mean. Normal distributions have a kurtosis of 3.



The diagram above depicts kurtosis. A kurtosis measure of less than 3 indicates that the observed data, as shown by the platykurtic curve above, indicates that the distribution is concentrated about the mean. In our observations the platykurtic curve is flatter in the later period. This means that academics are grading their students as if they, the students, are becoming more and more equal to each other; in other words the academics are avoiding rank ordering their students.

The second arises from lecturers' perceptions of the increase in firsts in their own subject areas compared to the increase in firsts in the College of Business in general. I do not know why I should be surprised as I did ask the question. Of the sixty three respondents forty one confirmed that they believed that there was an increase in firsts over the ten year period, in their subject area. The remaining respondents, twenty two, believed that there was no increase in firsts. One individual did not answer the question on an increase in firsts in the College of Business in general, fifty answered that there had been an increase and two answered in the negative. There were fifty three respondents to this question. Presumably most of the ten who answered the first question and who did not answer the second question did not wish to pass judgement on their colleagues' awarding of grades.

The third finding that I had not anticipated was the large majority of respondents who believe that the greatest contributor to the increases in grade inflation came from institutional attributes and, in particular, college grading policies and institutional measures to retain students. There is some discussion among some academics on the causes of grade inflation much of which suggests that there are subtle and not so subtle pressures on academics to increase the odd grade a little to allow people to pass but the evidence is that fewer students are attaining a simple pass, rather more and more students are achieving some classification of honours. There is little talk of institutional pressure to award higher grades. The fact that no indication was offered in the questionnaire as to what constituted college grading policies or institutional measures to retain students means that the perception that such attributes exist is strong.

Recommendations

The most rewarding thing that anyone could do with this subject is to do an institute wide study on perceptions. While questionnaires are supposed to be anonymous one will find colleagues explaining why their answers are different. Also, while questionnaires are supposed to be complete in that they are carefully devised so as to elicit the information required, respondents will occasionally write a gem of information which will gladden ones heart. Examining the data for patterns was fascinating. Drawing up frequency tables, doing cross tabulation and developing tables proved stimulating.

There is a problem in our educational system and our system is not unique. The problem is the upward movement in the grades awarded in the third level of education. The challenge is to find a solution to this problem. How can an average mark of fifty eight percent represent the average student? Surely fifty percent (take note of Biggs and Tangs' work above on grading to the curve) is the average and all other results should be evenly distributed about that average. Finding a solution will require some creative thinking, which could possibly by gleaned from a qualitative study. It appears that most researchers in the College of Business prefer qualitative research over quantitative research methods. This does not rule out either research method or a combination into the subject, which could help raise awareness. Perhaps some ambitious academic might do both types of research.

There is ample evidence to prove that there is an upward movement in grades in both second level and in third level. Now we should look for a system which awards thinking rather than learning by rote – the legacy the points system has given our second level education system. This new system would have to cut ties with the present Leaving Certificate system, which rewards recall, and award critical thinking instead. Professor Tom Begley, formally of the Smurfit Business School, University College Dublin, asserts that the Leaving Certificate is *completely dysfunctional* now, although it once did serve a purpose, it should now be dispensed with (Foley 2010). The Leaving Certificate Examination served a good purpose for a long time but then the Universities in Ireland instituted a points grading system to streamline entry to college courses for students who completed the Leaving Certificate. Then things slowly but surely began to disintegrate. There must be a good thesis in this area; all that is required is for a researcher to find a reasonable number of interested and informed individuals to assist.

Additional Considerations

Limitations/Delimitations of this research

I decided in 2008 to attempt this study. I even enrolled in the course but I did nothing. Like Scott Adams of Dilbert cartoon fame I like the sound of deadlines – especially as they Whoosh by me. I found every excuse in the book not to continue. The house needed refurbishing, the teaching load changed, a few bouts of minor illnesses, I had them all. So, finally, last October I started in earnest and things went well for a while at least until I hit another barrier. Eventually I got back on track. Colleagues kept asking me how my research was progressing, so I had to put in an effort to complete it finally.

Many of my colleagues were very supportive of me in my efforts to obtain information on the grades achieved by students. The same cannot be said of top management who, while not refusing to help, found it expedient to ignore my requests for information. I hasten to add this does not apply to front line management who were forthcoming on all occasions. Such a response is not unusual, for example Valen Johnson experienced similar problems when he wished to carry out his research in Duke University although in his case the problem was with the lecturers (2003).

Two schools in the College of Business have for years collected examination results and these are stored on the College's server; this data was easy to access and obtaining useable information was possible although not straight forward. For one, some courses had course code changes and in some cases even name changes, although the subject content remained substantially the same and, for two, in one case two similar courses were combined into a new course without major alteration to either. These were not major difficulties but they provided challenges. Two other schools recorded the information in hard copy format only and comparable data for the two years 2000 and 2010 were not available for analysis. The fifth school had no students in 2000 and therefore was not included in the study.

There is only one constant and that constant is change, or so people are fond of reminding us. It is to be understood that there many lecturers in the College of Business who taught on business courses ten years ago and continue to teach on the same courses today although those courses have gone through probably two major changes due to quinquenial reviews in the intervening period. The number of lecturers in the College of Business is less than one hundred and forty; this offered the chance to conduct a census as opposed to a survey due to the identifiable, albeit few in number, lecturers but an

adequate number never the less for the task at hand. From the number of respondents it is the arguable that the results may be unreliable and may portray an indefensible outcome, however the research does open up the way for further, more extensive research in a similar area, perhaps institute wide or, more ambitiously, as a national survey. This then should lead to greater validity.

It was my view that, given the time constraint of nine months to complete this research, obtaining adequate information using qualitative research, although a very valuable tool in itself, would not be possible. Many people have an opinion on the subject of grade inflation, but a problem arises when they begin to think deeply about it and then the subject becomes murky and confusing as noted by John Wiley as he addressed a conference on grade inflation in 2003. My choice to carry out quantitative research was due to the numbers involved and the fact that I wished to obtain as broad a church as possible. It was further envisaged that only lecturers in the College of Business would be asked to participate as the total numbers are sufficient to conduct meaningful research. The actual numbers who participated in the research was sixty six. I had thought that most lecturers would participate by replying to the questionnaires as the subject area is educational, even if it is peripheral to their own academic interests. I am informed reliably that a fifty percent response rate is very good, even for an interested and engaged population.

Since the topic of the research is third level bound, it is understandable that, in spite of the extensive research, which is almost exclusively based on second level teaching especially in the USA and Australia, I have ignored much of that research, except in a few instances, and have tried to concentrate on the scant literature that exists for the third level sector.

How this research contributes to theory and/or practice in the chosen field of study

At the moment more and more academics feel that they are running out of marks at the higher grades and, in truth, many feel not all first class honours grades are merited. So they need a solution. In Duke University students are now awarded A+ grades, a practice only recently introduced into the Colleges and now the Universities (Johnson 2003). We are not in a position to extend grades awarded similarly as one hundred percent is the top of the scale.

Since the Second World War, in the USA in particular, a greater portion of school leavers continued their education to third level. The corresponding change in third level participation occurred in the mid 1960s in Republic of Ireland when the government introduced free schooling at second level. In the early 1960s there were five Universities in the Republic of Ireland. Today there are seven which, together with the fourteen Institutes of Technology, are all financed by Central Government. Along with the seven Universities, Dublin Institute of Technology is its own degree awarding authority.

Further, there are many private colleges providing qualifications to students who study with them. Participation in third level education in Ireland is in the region of fifty five percent of school leavers up from about twenty percent of the early 1980s, (Larkin, C. and Dr Thijssen, J. 2008). At some point in time we may have to call a halt to the upward movement of grades and perhaps consider having a period of grade deflation as occurred in the 1950s and 1960s, or develop verifiable assessments for achieving intended learning outcomes. It is unlikely that any government will willingly institute measures to effect such a solution.

The contribution arising from this work lies mainly in developing awareness that the perceptions held by academics are broadly in line with the reality of the upward movement of grades, although this in itself does not necessarily confirm that there is grade inflation. There really are too many variables to measure.

Ethical issues

According to Sarantakos (2005 p.22), one may take a stance on adherence to ethics in research by:

1. fully adhere to ethics,
2. relatively adhere to ethics, where for example to be fully compliant one may be requested to hand in a signed consent form from tax evaders, or
3. one may question ethics since research is carried out for the sake of improving the overall quality of life and not for the sake of ethics.

If we are to take a strong ethical stance in research then we need look no further than the ten commandments of ethics as identified by Vlahos and quoted by Sarantakos (2005 p.23), these form a solid foundation for ethical research. They are all relevant to the body of this proposed research and they therefore warrant presenting here.

The Ten Commandments on Ethics

Thou shalt NOT....

1. Include in the study or continue working with a person who demonstrates resistance or discomfort relating to the study or the research topic.
2. Attempt to convince a person to take part in the study, when this person is not in a position to respond adequately to the research question.
3. Fail to explain all relevant aspects of the study to the respondents before they agree to participate.
4. Promise anonymity and confidentiality if it is likely that this promise will not be honoured.
5. Fail to respect the respondents' privacy.
6. Deceive the respondents in any way.

7. Subject respondents to procedures that may entail physical or mental stress.
8. Include in the study techniques whose degree of safety is questionable.
9. Violate professional research standards, for example by fabricating, falsifying, or concealing data.
10. Accept a contracted research project that violates ethical and/or professional standards.

Source: Sarantakos (2005).

In this piece of research certain ethical issues arise, for example: the sample is a census of the lecturers in the College of Business, Dublin Institute of Technology, where I work. It is not that greater care is warranted when dealing with peers, in fact, like all people, they do deserve to be treated with the greatest of care and the utmost of respect. In this instance a request by a lecturer to other lecturers in the same faculty may put a strain on the normal academic relationships. Undue pressure must not be exerted on colleagues to partake in a study. Obviously, the option of faculty members to opt out of a study may render that study less valid than if they all willingly participated. In order to confirm that no pressure or undue influence existed I confirmed by letter to my colleagues that the completion of the questionnaire was entirely at their discretion. They were not obliged to complete the questionnaire. A copy of the letter requesting the completion of the questionnaire is available in Appendix I.

At this point we must consider the Heisenberg principle *which states that it is impossible to determine both the position and the momentum of a sub atomic particle*, (Crotty) the effect of which is that we as observers cannot set ourselves independent of the observed, thereby creating a dilemma: how do we not influence the observed and what effect will this have on the research?

Given that there is evidence to prove the existence of grade inflation, what effect will proof that grade inflation exists in Dublin Institute of Technology have on the organisation? Further, if this grade inflation exists alongside a reduction in academic standards, what effect does it have on the performance of academics? Do the people in positions of power in academia (academics, senior academics and indeed the Government) want to have this grade inflation quantified? Then how should they respond if we quantify this grade inflation? What do we do if we find that academics do respond to the above by loosening standards? Knowledge is a good thing and it may assist us in correcting the situation or at least in finding some solutions through discussion.

Presentation of findings

In this instance the results are presented as submission for qualification with the Masters degree in Learning and Teaching awarded by Dublin Institute of Technology. Later, I expect that the results will be made public as the survey sample is sufficiently large so as not to allow the identification of the participants. Hopefully, depending on the interest generated in the results someone will run with the recommendations that arise from the study. One never knows, one could use the concepts developed herein and expand the research further in pursuit of a doctorate.

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Appendix I

Covering letter and
Questionnaire

Derek Simon,
Dublin Institute of Technology,
Aungier Street,
Dublin 2.
09/05/2011

All members of academic staff,
College of Business,
Dublin Institute of Technology.

Re: Research into perception survey of lecturer attitudes to student grades in the College of Business.

Dear,

I ask that you oblige me and complete the enclosed survey which I undertake as part of my research for a Masters Degree in Third Level Learning and Teaching.

All responses will have total anonymity, as the questionnaires are unnumbered there is no traceability to participants.

If you are willing to complete the questionnaire, which should take no more than seven minutes, please do so and return it in the enclosed envelope in the next few days.

Many Thanks,

Derek Simon.

Perception survey of Lecturer attitudes to student grades in DIT College of Business

1) How long you have worked as a lecturer.

Number of years :____:

2) How long you have worked as a lecturer in DIT.

Number of years :____:

3) Please state the subject(s) you teach ....

4) Please indicate the lecturer grade at which you are employed

Senior Lecturer III

Senior Lecturer II

Senior Lecturer I

Lecturer Grade

Assistant Lecturer

5) Please state Male :__: Female :__:

6) Do you believe that, in general, more first class honours have been achieved by students in your subject area in the year 2010 when compared to the number of firsts achieved in the year 2000.

Yes :__: No :__:

7) If you answered yes to question 6 above, please indicate by circling one of the following how much, in percentage terms the number of firsts increased in the ten year period 2000 to 2010?

25% 50% 75% 100% 150%

8) Do you believe that more first class honours have been achieved by students in the College of Business generally, in the year 2010 when compared with those achieved in 2000.

Yes :__: No :__:

9) If you answered yes to question 8 above, please indicate by circling one of the following how much, in percentage terms the number of firsts increased in the ten year period 2000 to 2010?

25% 50% 75% 100% 150%

10) please indicate the percentage increase which you believe to be:

Too high	:____:
High	:____:
Acceptable	:____:
Low	:____:
Too low	:____:

11) Below there are seven educational attributes which may have contributed to a change in the grades awarded to students in the ten year period 2000 to 2010. Please indicate how the following have impacted on the results achieved by students in the College of Business generally, including your own students:

a) Better quality students	Immensely	A lot	A little	Not at all
b) Better learning techniques	Not at all	A little	A lot	Immensely
c) Better teaching techniques	Immensely	A lot	A little	Not at all
d) Easier access to learning material	Not at all	A little	A lot	Immensely
e) Less material to learn	Immensely	A lot	A little	Not at all
f) Easier material to learn	Not at all	A little	A lot	Immensely
g) Better overall learning environment	Immensely	A lot	A little	Not at all

12) Please rank-order the attributes which contributed most to the increase in grades achieved by students. (Place a 1 to represent the greatest contributor to the increase and a 2 to represent the next greatest contributor to the increase.)

a) Better learning techniques	:____:
b) Better overall environment	:____:
c) Better quality students	:____:
d) Better teaching techniques	:____:
e) Easier access to learning material	:____:
f) Easier material to learn	:____:
g) Less material to learn	:____:

13) Have you attended any course on education in the last ten years?

Yes :__: No :__:

14) If you answered yes to the previous question please indicate to what extent did this course (these courses) facilitate(s) an improvement in your teaching?

Not at all A little A lot Immensely

15) Below there are five institutional attributes which may have contributed to a change in the grades awarded to students in the ten year period 2000 to 2010. Please indicate how the following have impacted on the results achieved by students in the College of Business generally, including your own students:

a) College Grading policies Immensely A lot A little Not at all

b) Institutional measures to retain students

Not at all A little A lot Immensely

c) Permission which allows students to carry subjects

Immensely A lot A little Not at all

d) The appeal processes available to students

Not at all A little A lot Immensely

e) Recommendations by external examiners to modify examination results

Immensely A lot A little Not at all

16) Please rank-order two of the attributes below which contributed most to the increase in grades achieved by students. (Place a 1 to represent the greatest contributor to the increase and a 2 to represent the next greatest contributor to an increase.)

a) College grading policies :____:

b) Institutional measures to retain students :____:

c) Permission which allows students carry subjects :____:

d) The appeal processes available to students :____:

e) Recommendations by external examiners to modify examination results :____:

17) Please rank-order the following attributes in order of their contribution the increase in grades achieved by students. (place a 1 to represent the most important and a 2 to represent the least important contributor)

a) Educational attributes :____:

b) Institutional attributes :____:

Thank you for taking the time to complete this questionnaire.

Appendix II

Tables showing output
for statistical analysis of
student results.

	FT541 2000						
mean	58.927692	*Bin*	*Frequency*	% of tot	2.2	2.1	firsts
mode	57.210000	0	0		as %	as %	as %
median	59.630000	5	0		of	of	of
kurtosis	0.207870	10	0		*Total*	*Total*	*Total*
skewness	-0.258416	15	0				
std dev	5.595328	20	0				
count	117.000000	25	0				
Coefficient		30	0				
of variation	0.094952	35	0				
		40	0				
		45	2	0.01709			
		50	6	0.05128			
		55	17	0.1453	0.197		
		60	44	0.37607			
		65	33	0.28205		0.65812	
		70	12	0.10256			
		75	3	0.02564			0.128205
		80	0				
		85	0				
		90	0				
		95	0				
		More	0				

	DT341 2010						
mean	57.671053	*Bin*	*Frequency*	% of tot	2.2	2.1	firsts
mode	61.000000	0	0		as %	as %	as %
median	58.000000	5	0		of	of	of
kurtosis	-0.093138	10	0		*Total*	*Total*	*Total*
skewness	-0.445137	15	0				
std dev	7.022608	20	0				
count	76.000000	25	0				
Coefficient		30	0				
of variation	0.121770	35	0				
		40	1	0.01316			
		45	2	0.02632			
		50	12	0.15789			
		55	12	0.15789	0.316		
		60	21	0.27632			
		65	19	0.25		0.526316	
		70	9	0.11842			
		75	0				0.118421
Difference		80	0				
mean	1.256640	85	0				
mode	-3.790000	90	0				
median	1.630000	95	0				
kurtosis	0.301008	More	0				
skewness	0.186721						
std dev	-1.427280						

DT542 2000		*Bin*	*Frequency*	% of tot	2.2	2.1	firsts
mean	53.397436	0	0		as %	as %	as %
mode	55.000000	5	0		of	of	of
median	54.000000	10	0		*Total*	*Total*	*Total*
kurtosis	0.205694	15	0				
skewness	0.100040	20	0				
std dev	6.007225	25	0				
count	78.000000	30	0				
Coefficient		35	0				
of variation	0.094952	40	1	0.01282			
		45	6	0.07692			
		50	18	0.23077			
		55	25	0.32051	0.551		
		60	20	0.25641			
		65	6	0.07692		0.333333	
		70	2	0.02564			
		75	0				0.025641
		80	0				
		85	0				
		90	0				
		95	0				
		More	0				

DT365 2010		*Bin*	*Frequency*	% of tot	2.2	2.1	firsts
mean	56.307190	0	0		as %	as %	as %
mode	56.000000	5	0		of	of	of
median	56.000000	10	0		*Total*	*Total*	*Total*
kurtosis	0.051918	15	0				
skewness	-0.308702	20	0				
std dev	9.299322	25	1	0.00654			
count	153.000000	30	1	0.00654			
Coefficient		35	0	0			
of variation	0.121770	40	2	0.01307			
		45	14	0.0915			
		50	24	0.15686			
		55	29	0.18954	0.346		
		60	30	0.19608			
		65	23	0.15033		0.346405	
		70	20	0.13072			
differences		75	9	0.05882			0.189542
mean	-2.909754	80	0				
mode	-1.000000	85	0				
median	-2.000000	90	0				
kurtosis	0.153776	95	0				
skewness	0.408742	More	0				
std dev	-3.292097						
count							
Coefficient							

of variation	-0.026818						

DT502 2000

		Bin	*Frequency*	% of tot	2.2	2.1	firsts
mean	54.668571	0	0		as %	as %	as %
mode	56.200000	5	0		of	of	of
median	56.200000	10	0		*Total*	*Total*	*Total*
kurtosis	2.768381	15	0				
skewness	-1.233479	20	0				
std dev	9.003783	25	1	0.02857			
count	35.000000	30	0	0			
Coefficient		35	0	0			
of variation	0.164698	40	1	0.02857			
		45	3	0.08571			
		50	3	0.08571			
		55	8	0.22857	0.314		
		60	9	0.25714			
		65	8	0.22857		0.485714	
		70	1	0.02857			
		75	1	0.02857			0.057143
		80	0				
		85	0				
		90	0				
		95	0				
		More	0				

DT303 2010

		Bin	*Frequency*	% of tot	2.2	2.1	firsts
mean	57.128205	0	0		as %	as %	as %
mode	59.000000	5	0		of	of	of
median	56.000000	10	0		*Total*	*Total*	*Total*
kurtosis	0.458912	15	0				
skewness	0.263710	20	0				
std dev	8.870945	25	0				
count	39.000000	30	0				
Coefficient		35	0				
of variation	0.155281	40	1	0.02564			
		45	2	0.05128			
		50	5	0.12821			
		55	11	0.28205	0.41		
		60	10	0.25641			
		65	3	0.07692		0.333333	
		70	3	0.07692			
		75	3	0.07692			
		80	1	0.02564			0.102564
differences		85	0				
mean	-2.459634	90	0				
mode	-2.800000	95	0				
median	0.200000	More	0				

kurtosis	2.309469
skewness	-1.497189
std dev	0.132838
count	39.000000

Table 1

DT 542 2000		DT365 2010		Difference	
mean	53.39744	mean	56.30719	mean	2.909754
mode	55	mode	56	mode	1
median	54	median	56	median	2
kurtosis	0.205694	kurtosis	0.051918	kurtosis	-0.15378
skewness	0.10004	skewness	-0.3087	skewness	-0.40874
std dev	6.007225	std dev	9.299322	std dev	3.292097
count	78	count	153	count	75
coefficient of variation	11.25002	coefficient of variation	16.51534	coefficient of variation	5.265312

Table 2 DT 542 2000

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	no. firsts
9	55	33	3	7	43	26	2

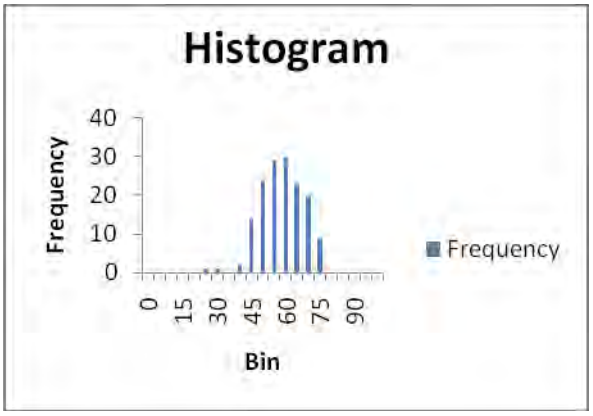


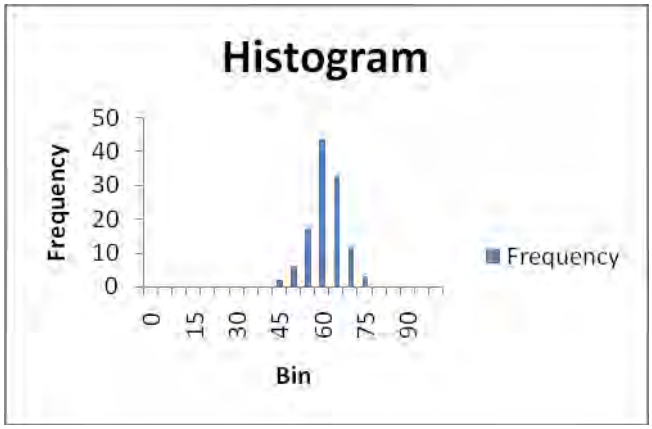
Table 3

DT 365 2010

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	no. firsts
10	35	35	19	16	53	53	29

Table 4

	FT541 2000		DT341 2010		Difference
mean	58.92769	mean	57.67105	mean	-1.25664
mode	57.21	mode	61	mode	3.79
median	59.63	median	58	median	-1.63
kurtosis	0.20787	kurtosis	-0.09314	kurtosis	-0.30101
skewness	-0.25842	skewness	-0.44514	skewness	-0.18672
std dev	5.595328	std dev	7.022608	std dev	1.42728
count	117	count	76	count	-41
Coefficient of variation	9.495243	Coefficient of variation	12.17701	coefficient of variation	2.681763



	FT541 2000
mean	58.92769
mode	57.21
median	59.63
kurtosis	0.20787
skewness	-0.25842
std dev	5.595328
count	117
Coefficient of variation	9.495243

Table 5

DT 541 2000

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	no. firsts
2	20	66	13	2	23	77	15

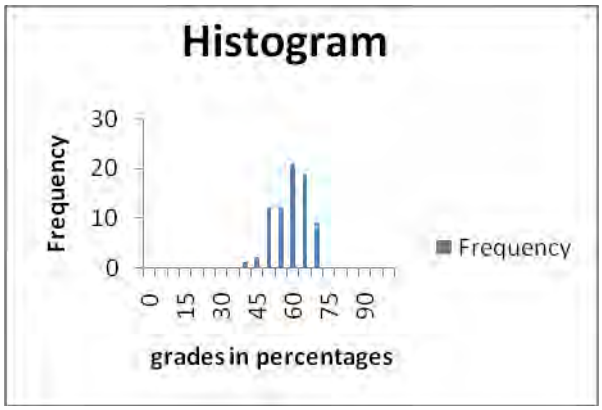
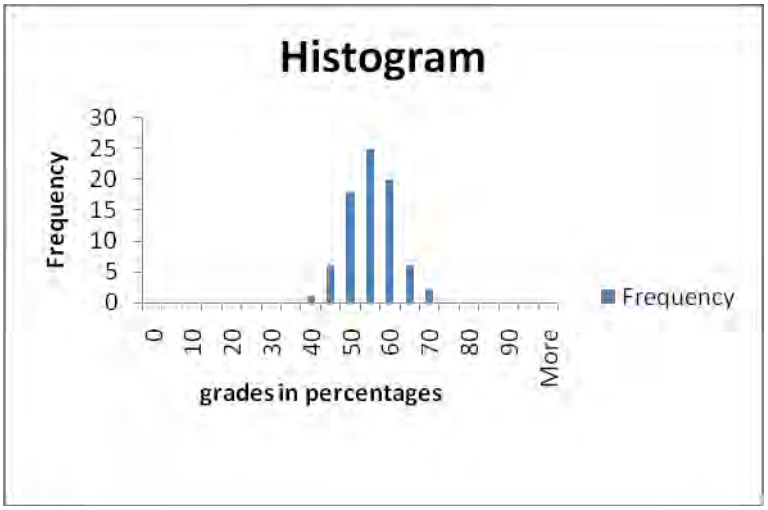


Table 6

DT 341 2010

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	no. firsts

4	32	53	12	3	24	40	9



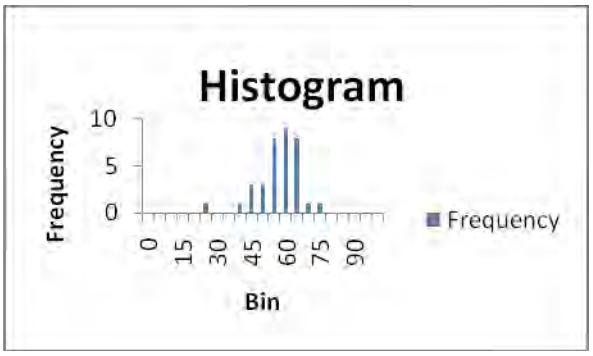


Table 7

DT 502 2000

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	no. firsts
11	31	49	6	4	11	17	2

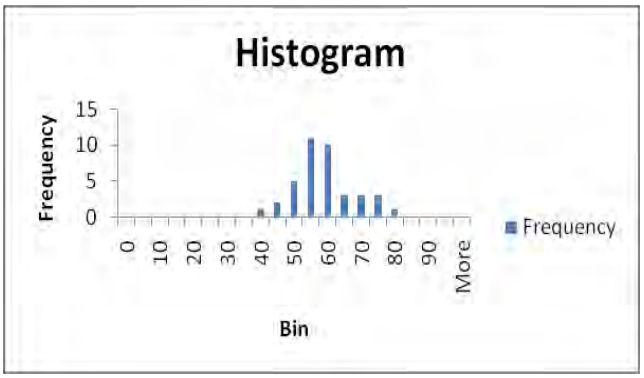


Table 8

DT 503 2010

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	no. firsts
8	41	33	18	3	16	13	7

Composite Average mark obtained by students in 2000 School of Retailing

Table 9

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	no. firsts
7	31	49	13	11	46	73	19

Result	Restated						
52	52	mean	56.49		bin		
55	55	mode	59.00		0	*0*	*Frequency*
	66	median	56.53		5	5	0
66	62	kurtosis	-0.17		10	10	0
	63	skewness	-0.05		15	15	0
62	62	std dev	7.50		20	20	0
63	68	count	150.00		25	25	0
62	77	coefficient			30	30	0
68	60	of variation	0.13		35	35	0
77	58				40	40	1
60	62				45	45	10
58	56				50	50	18
62	56				55	55	28
56	54				60	60	46
	61				65	65	27
56	56				70	70	14
	58				75	75	4
54	72				80	80	1
61	70				85	85	0
56	64				90	90	0
58	54				95	95	0
72	66					More	0
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64	50						
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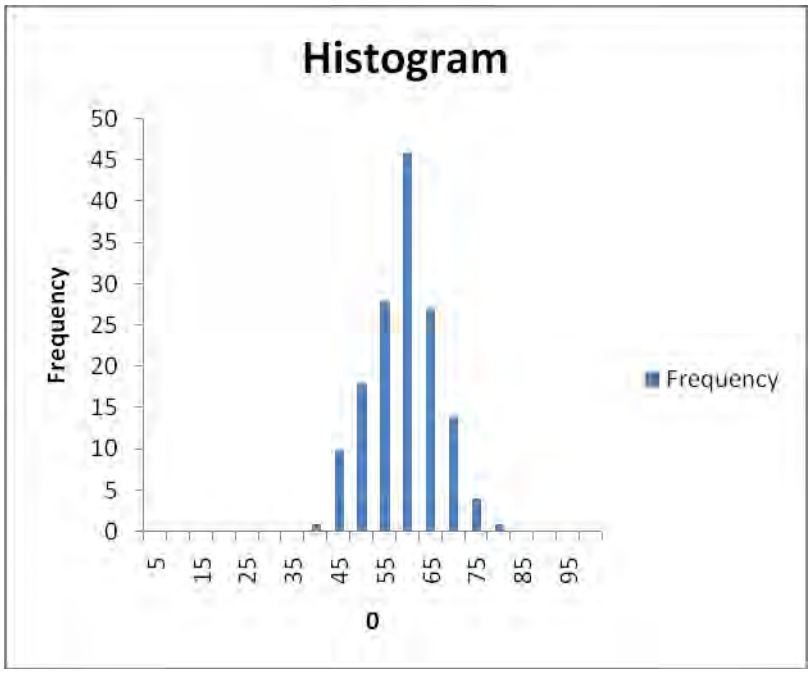
52	66						



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The blanks above represent failures in the sessional examinations.

Average mark obtained by students in 2010 School of Retailing

Table 10

	% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	no. firsts
	10	21	41	26	13	29	56	35

Result	Restated			bin		*0*	*Frequency*
59	59	mode	56.00		0	5	0
50	50	median	59.00		5	10	0
66	66	kurtosis	1.39		10	15	0
65	65	skewness	-0.65		15	20	1
52	52	std dev	9.17		20	25	0
45	45	count	135.00		25	30	0
	55	coefficient			30	35	0
55	68	of variation	0.16		35	40	2
68	41				40	45	11
41	56				45	50	8
56	61				50	55	21
61	55				55	60	33
55	57				60	65	23
57	63				65	70	25
63	61				70	75	9
61	60				75	80	1
60	63				80	85	0
					85		

63	46	90	90	0
46	70	95	95	0
70	52		More	0
52	53			
53	67			
67	55			
55	69			
69	71			
71	62			
62	61			
61	67			
67	45			
45	44			
44	68			
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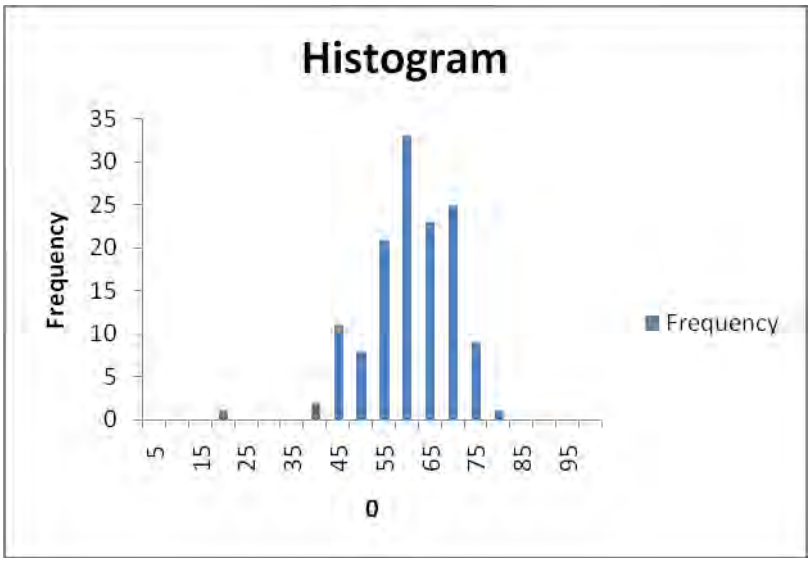
69	67			



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The blanks above represent failures in the sessional examinations.

DT 541 2000

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	no. firsts
2	20	66	13	2	23	77	15

DT 521 522 523 525 2000

DT 542 2000

9	55	33	3	7	43	26	2

DT 502 2000

11	31	49	6	4	11	17	2
Totals							
				24	123	193	38

DT 345 355 360 2010

% pass	% 2.2	% 2.1	% firsts	No. pass	No. 2.2	No 2.1	no. firsts
10	21	41	26	13	29	56	35

DT 365 2010

10	35	35	19	16	53	53	29

DT 341 2010

4	32	53	12	3	24	40	9

DT 303 2010

8	41	33	18	3	16	13	7
Totals							
				35	122	162	80

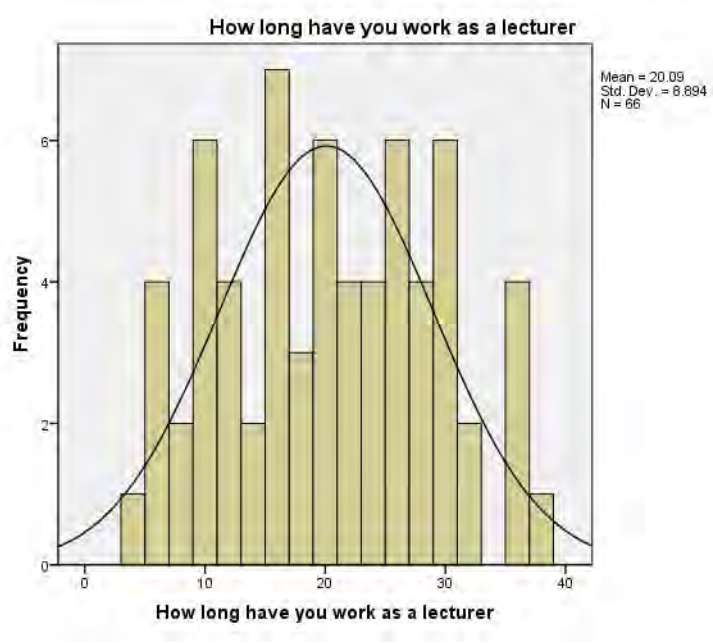
Table 11

Summation of observed results	No. of Passes	No. of 2.2	No. of 2.1	No. of Firsts
2000	24	123	193	38
2010	35	122	162	80
Differences	11	-1	-31	42

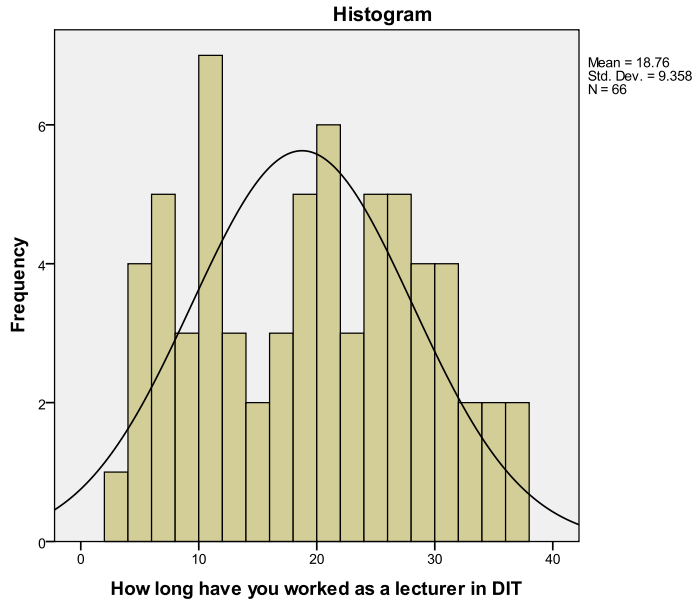
Appendix III

Tables of frequencies and
cross tabulations of
questionnaire analysis.

Graph 1



Graph 2



Teaching grade of respondents

Please indicate the lecturer grade at which you are employed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Senior Lecturer ii	5	7.6	7.6	7.6
	Senior Lecturer i	7	10.6	10.6	18.2
	Lecturer	40	60.6	60.6	78.8
	Assistant Lecturer	14	21.2	21.2	100.0
	Total	66	100.0	100.0	

Sex of respondents

Please state sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	37	56.1	56.1	56.1
	Female	29	43.9	43.9	100.0
	Total	66	100.0	100.0	

Analysis of replies to question six

Do you believe that, in general, more first class honours have been achieved by students in your subject area in the year 2010 when compared to the number of firsts achieved in the year 2000.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	22	33.3	34.9	34.9
	Yes	41	62.1	65.1	100.0
	Total	63	95.5	100.0	
Missing value		3	4.5		
Total		66	100.0		

Analysis of replies to question seven

If you answered yes to question 6 above, please indicate by circling one of the following how much, in percentage terms the number of firsts increased in the ten year period 2000 to 2010?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10%	2	3.0	5.1	5.1
	25%	19	28.8	48.7	53.8
	50%	10	15.2	25.6	79.5
	75%	2	3.0	5.1	84.6
	100%	5	7.6	12.8	97.4
	150%	1	1.5	2.6	100.0
	Total	39	59.1	100.0	
Missing value		27	40.9		
Total		66	100.0		

Analysis of replies to question eight

Do you believe that more first class honours have been achieved by students in the College of Business generally, in the year 2010 when compared with those achieved in 2000.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	3	4.5	5.7	5.7
	Yes	49	74.2	92.5	98.1
	No answer	1	1.5	1.9	100.0
	Total	53	80.3	100.0	
Missing value		13	19.7		
Total		66	100.0		

Analysis of replies to question nine

If you answered yes to question 8 above, please indicate by circling one of the following how much, in percentage terms the number of firsts increased in the ten year period 2000 to 2010?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25%	19	28.8	39.6	39.6
	50%	20	30.3	41.7	81.3
	75%	2	3.0	4.2	85.4
	100%	5	7.6	10.4	95.8
	150%	2	3.0	4.2	100.0
	Total	48	72.7	100.0	
Missing value		18	27.3		
Total		66	100.0		

Analysis of replies to question thirteen

Have you attended any course on education in the last ten years?

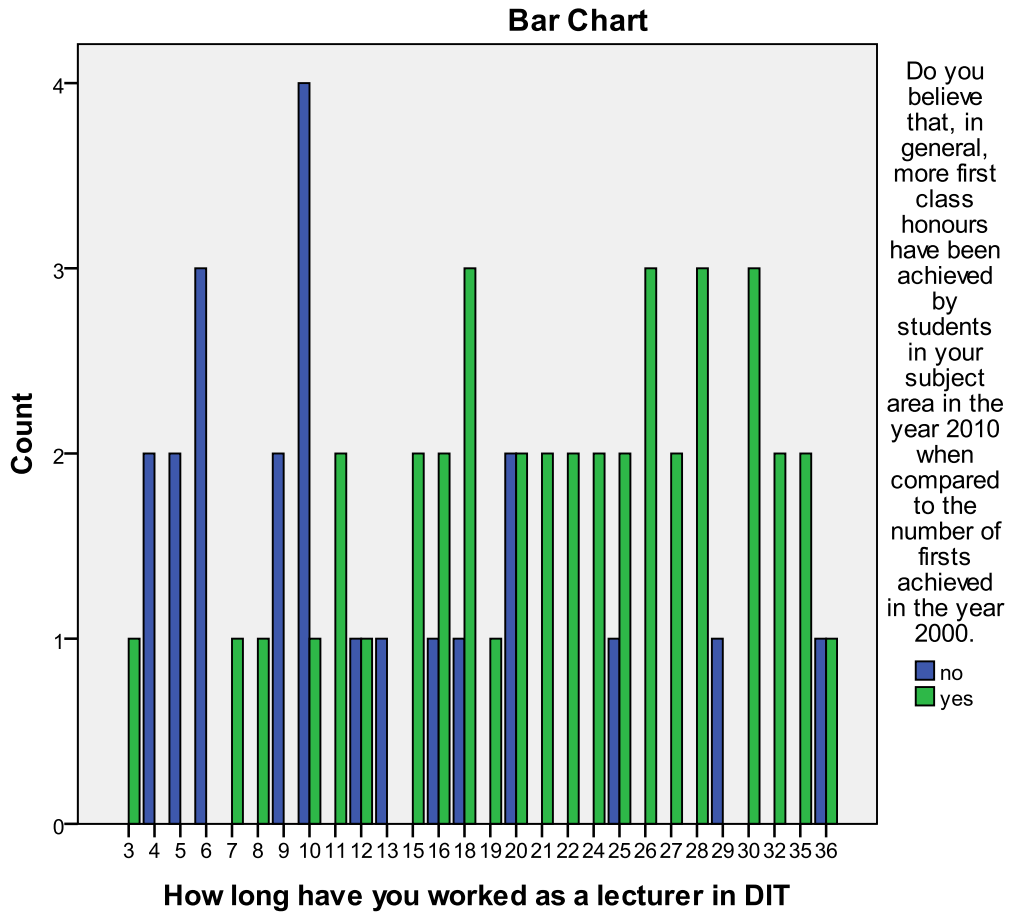
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	18	27.3	27.3	27.3
	Yes	48	72.7	72.7	100.0
	Total	66	100.0	100.0	

Analysis of replies to question fourteen

If you answered yes to the previous question please indicate to what extent did this course (these courses) facilitate(s) an improvement in your teaching?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	3	4.5	6.1	6.1
	A little	28	42.4	57.1	63.3
	A lot	11	16.7	22.4	85.7
	Immensely	7	10.6	14.3	100.0
	Total	49	74.2	100.0	
Missing value		17	25.8		
Total		66	100.0		

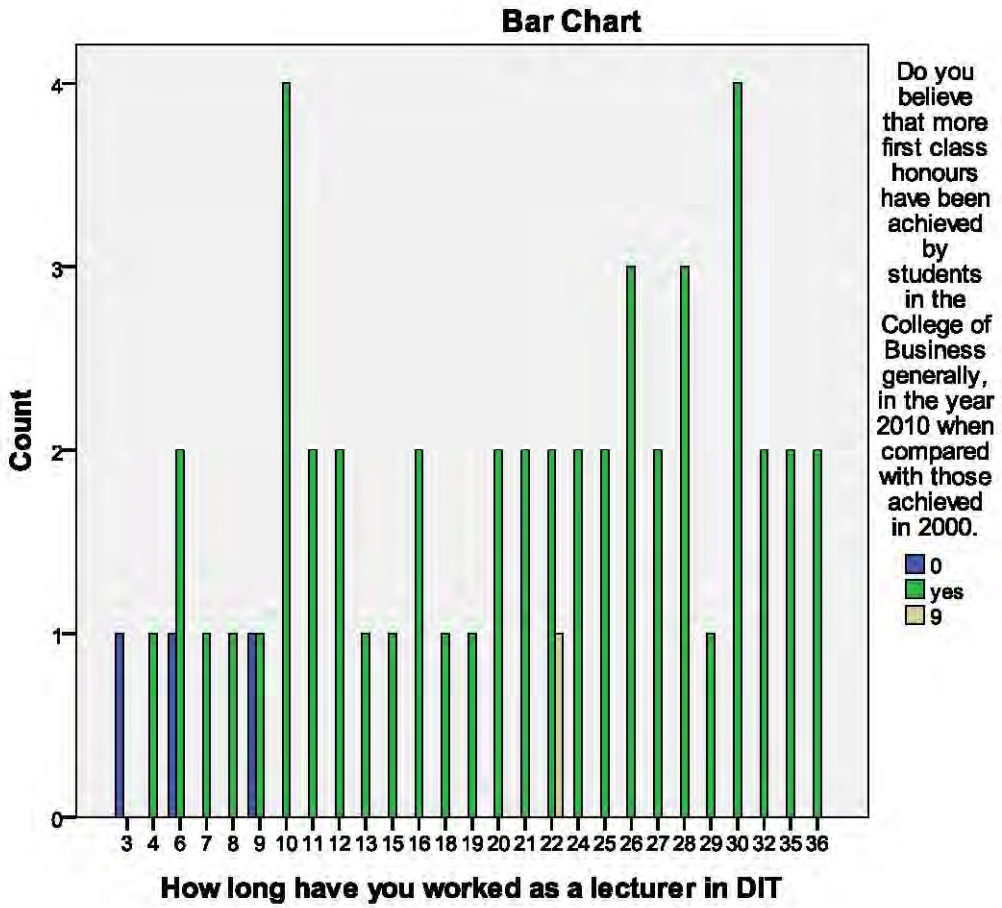
Cross tabulation of question two and question six responses



Cross tabulation showing Years Working in DIT and the rank-order of the educational and institutional attributes in order of their contribution to the increase in grades achieved by students

		Please rank-order the educational and institutional attributes in order of their contribution to the increase in grades achieved by students		
		Institutional attributes	Educational attributes	Total
Years Working in DIT	1 to 12 years	19	3	22
	13 to 24 years	18	5	23
	25 to 36 years	18	3	21
Total		55	11	66

Cross tabulation of question two and question six responses



Summation of responses to question twelve

	1	2	3	4	5	6	7
Rank for better quality students	14%	11%	12%	21%	12%	23%	7%
Rank for better learning techniques	13%	16%	18%	29%	18%	5%	2%
Rank for better teaching techniques	2%	11%	4%	2%	20%	9%	53%
Rank for easier access to learning material	9%	15%	22%	22%	16%	15%	2%
Rank for less material to learn	28%	14%	31%	16%	10%	2%	0%
Rank for easier material to learn	17%	36%	6%	2%	9%	21%	9%
Rank for better overall learning environment	37%	19%	8%	8%	4%	12%	13%

Summation of responses to question fifteen

	1	2	3	4	5
College Grading Policies	54%	31%	7%	7%	0%
Institutional measures to retain students	45%	34%	11%	6%	4%
Permission which allows students carry subjects	14%	29%	20%	23%	14%
The appeal processes available to students	11%	35%	30%	19%	5%
Recommendations by external examiners to modify examination results	15%	15%	3%	15%	53%

Summation of responses to question seventeen

Please rank-order the educational and institutional attributes in order of their contribution to the increase in grades achieved by students

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Institutional attributes	55	83.3	83.3	83.3
	Educational attributes	11	16.7	16.7	100.0
	Total	66	100.0	100.0	

Cross tabulation of question five and question seventeen responses

		Numbers	Please state sex	
		Total	Male	Female
Please rank-order the educational and institutional attributes in order of their contribution to the increase in grades achieved by students	Institutional attributes	55	33	22
	Educational attributes	11	4	7

Table showing a combination of sex of respondents, their years working in DIT and their perceptions as to the ranking of institutional or educational attributes' effect on grade inflation.

		Numbers	Please state sex		Years Working in DIT		
		Total	Male	Female	1 to 12 years	13 to 24 years	25 to 36 years
Please rank-order the educational and institutional attributes in order of their contribution to the increase in grades achieved by students	Institutional attributes	55	33	22	19	18	18
	Educational attributes	11	4	7	3	5	3

Table showing a combination of respondents' years working in DIT together with their own attendance at an educational course and their perceptions as to the ranking of educational attributes' effect on grade inflation.

		1 to 12 years		13 to 24 years		25 to 36 years	
		No	Yes	No	Yes	No	Yes
Rating Q #1	Have better quality students impacted on grade increases	22.2%	4.1%	.0%	2.9%	.0%	2.7%
	Have better learning techniques contributed to grade inflation	11.1%	16.3%	4.8%	11.4%	7.1%	10.8%
	Have improved teaching techniques contributed to grade increases	.0%	14.3%	19.0%	14.3%	14.3%	5.4%
	Has easier access to learning material increased grades	11.1%	20.4%	28.6%	28.6%	35.7%	27.0%
	Has less learning material increased grades	22.2%	10.2%	14.3%	8.6%	21.4%	18.9%
	Has the lack of difficulty in the learning material led to grade increases	22.2%	12.2%	19.0%	14.3%	14.3%	16.2%
	Has an improved learning environment led to increased grades	11.1%	22.4%	14.3%	20.0%	7.1%	18.9%

Table showing a combination of respondents' educational experiences and their perceptions as to the ranking of educational attributes' effect on grade inflation.

		No	Yes
Rating Q #1	Have better quality students impacted on grade increases	4.5%	3.3%
	Have better learning techniques contributed to grade inflation	6.8%	13.2%
	Have improved teaching techniques contributed to grade increases	13.6%	11.6%
	Has easier access to learning material increased grades	27.3%	24.8%
	Has less learning material increased grades	18.2%	12.4%
	Has the lack of difficulty in the learning material led to grade increases	18.2%	14.0%
	Has an improved learning environment led to increased grades	11.4%	20.7%

Table showing a combination of respondents' educational teaching areas and their perceptions as to the ranking of educational attributes' effect on grade inflation.

	Subject areas taught		
	Numerative	Economics	Descriptive
College Grading Policies	11	3	20
Institutional measures to retain students	10	0	14
Permission which allows students carry subjects	2	2	3
The appeal processes available to students	0	1	5
Recommendations by external examiners to modify examination results	2	1	3

Table showing a combination of college grading policies and the rank-order assigned showing the perceived effect on the increases in grades.

		College Grading Policies				Numbers
		1	2	3	4	Total
institutional attributes: please indicate how the following has impacted on the results achieved by students in the College of Business generally, College Grading Policies	Not at all	6.5%	5.9%	.0%	.0%	4.6%
	A little	.0%	11.8%	50.0%	25.0%	16.9%
	A lot	45.2%	64.7%	50.0%	50.0%	49.2%
	Immensely	48.4%	17.6%	.0%	25.0%	29.2%

Table showing a combination of respondents' subject areas, working experience and their perceptions as to the ranking of educational attributes' effect on grade inflation.

					Working in DIT			Subject areas taught		
		Total	Male	Female	1 to 12 years	13 to 24 years	25 to 36 years	Numerative subjects	Economics	Discursive subjects
Rating Q #1	Have better quality students impacted on grade increases	10%	11%	7%	19%	5%	5%	12%	0%	8%
	Have better learning techniques contributed to grade inflation	30%	20%	43%	43%	23%	25%	24%	0%	37%
	Have improved teaching techniques contributed to grade increases	32%	26%	39%	33%	41%	20%	32%	33%	32%
	Has easier access to learning material increased grades	62%	57%	68%	48%	68%	70%	52%	33%	66%
	Has less learning material increased grades	37%	37%	36%	33%	27%	50%	44%	83%	37%
	Has the lack of difficulty in the learning material led to grade increases	40%	43%	36%	38%	41%	40%	36%	83%	45%
	Has an improved learning environment led to increased grades	48%	31%	68%	57%	45%	40%	44%	33%	42%

Table showing a combination of respondents' subject areas, working experience and their perceptions as to the ranking of institutional attributes' effect on grade inflation.

					Working in DIT 1 to 12 years			Subject areas taught		
		Total	Male	Female	1 to 12 years	13 to 24 years	25 to 36 years	Numerative subjects	Economics	Discursive subjects
Rating Q #2	Have college grading policies led to grade increases	78%	80%	75%	48%	86%	100%	72%	67%	84%
	Have institutional measures to retain students led to an increase in grades	67%	66%	68%	62%	59%	80%	64%	67%	68%
	Has permission to carry subjects caused grade increases	44%	34%	57%	38%	55%	40%	28%	50%	55%
	Have the appeal processes led to grade increases	49%	46%	54%	43%	55%	50%	40%	67%	55%
	Have recommendations by external examiners increased grades	25%	29%	21%	24%	27%	25%	12%	33%	34%

Table showing how better quality students have impacted on the results achieved by students in the College of Business and the ranking for better quality students Cross tabulation

		Rank for better quality students							
		1	2	3	4	5	6	7	Total
Please indicate how the following have impacted on the results achieved by students in the College of Business generally, including you own students Better Quality Students	not at all	25.0%	50.0%	100.0%	75.0%	66.7%	71.4%	50.0%	65.0%
	a little	62.5%	16.7%		25.0%	22.2%	28.6%	25.0%	26.7%
	a lot	12.5%	16.7%			11.1%		25.0%	6.7%
	immensely		16.7%						1.7%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table showing how better learning techniques have impacted on the results achieved by students in the College of Business and the ranking for better quality students Cross tabulation

		Rank for better learning techniques							
		1	2	3	4	5	6	7	Total
Please indicate how the following have impacted on the results achieved by students in the College of Business generally, including you own students Better Learning Techniques	not at all		20.0%	20.0%	29.4%	30.0%			20.3%
	a little	85.7%	20.0%	40.0%	52.9%	50.0%	100.0%	100.0%	52.5%
	a lot	14.3%	50.0%	40.0%	17.6%	20.0%			25.4%
	immensely		10.0%						1.7%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table showing how better teaching techniques have impacted on the results achieved by students in the College of Business and the ranking for better quality students Cross tabulation.

		Rank for better teaching techniques							
		1	2	3	4	5	6	7	Total
Please indicate how the following have impacted on the results achieved by students in the College of Business generally, including you own students Better Teaching Techniques	not at all							13.3%	6.9%
	a little	50.0%	100.0%	50.0%	100.0%	41.7%	80.0%	60.0%	62.1%
	a lot	50.0%		50.0%		41.7%	20.0%	26.7%	27.6%
	immensely					16.7%			3.4%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table (nested) showing how educational attributes have impacted on the results achieved by students in the College of Business as perceived by respondents according to their sex and their number of years working in DIT.

	Male			Female		
	Years Working in DIT			Years Working in DIT		
	1 to 12 years	13 to 24 years	25 to 36 years	1 to 12 years	13 to 24 years	25 to 36 years
Have better quality students impacted on grade increases	11.8%	2.9%	3.3%	4.9%	.0%	.0%
Have better learning techniques contributed to grade inflation	11.8%	5.9%	10.0%	17.1%	13.6%	9.5%
Have improved teaching techniques contributed to grade increases	.0%	17.6%	10.0%	17.1%	13.6%	4.8%
Has easier access to learning material increased grades	17.6%	29.4%	30.0%	19.5%	27.3%	28.6%
Has less learning material increased grades	17.6%	11.8%	20.0%	9.8%	9.1%	19.0%
Has the lack of difficulty in the learning material led to grade increases	23.5%	14.7%	20.0%	9.8%	18.2%	9.5%
Has an improved learning environment led to increased grades	17.6%	17.6%	6.7%	22.0%	18.2%	28.6%

Table (nested) showing in percentage terms how institutional attributes have impacted on the results achieved by students in the College of Business as perceived by respondents according to their sex and their number of years working in DIT.

		Male			Female		
		Years Working in DIT			Years Working in DIT		
		1 to 12 years	13 to 24 years	25 to 36 years	1 to 12 years	13 to 24 years	25 to 36 years
Rank order Q #2	College Grading Policies	55.6%	57.1%	50.0%	23.1%	33.3%	71.4%
	Institutional measures to retain students	44.4%	21.4%	35.7%	53.8%	33.3%	28.6%
	Permission which allows students carry subjects	11.1%	0.0%	0.0%	15.4%	22.2%	0.0%
	The appeal processes available to students	11.1%	14.3%	7.1%	7.7%	11.1%	0.0%
	Recommendations by external examiners to modify examination results	22.2%	7.1%	14.3%	0.0%	0.0%	0.0%

Table (nested) showing by number of responses how institutional attributes have impacted on the results achieved by students in the College of Business as perceived by respondents according to their sex and their number of years working in DIT.

		Male			Female		
		Years Working in DIT			Years Working in DIT		
		1 to 12 years	13 to 24 years	25 to 36 years	1 to 12 years	13 to 24 years	25 to 36 years
Rank order Q #2	College Grading Policies	5	8	7	3	3	5
	Institutional measures to retain students	4	3	5	7	3	2
	Permission which allows students carry subjects	1	0	0	2	2	0
	The appeal processes available to students	1	2	1	1	1	0
	Recommendations by external examiners to modify examination results	2	1	2	0	0	0

Appendix IV

Information on DIT grades awarded
2004 to 2010.

Year	Total Graduates	First Class Honours	2.1 Hons	2.2 Hons	Distinction	Merit Upper Division	Merit Lower Division	Pass	% Ist	%2:1	%2:2
2004	4301	289	1009	587	312	660	562	882	6.719368	23.45966	13.64799
2005	4143	329	1084	604	305	638	461	722	7.941105	26.16462	14.57881
2006	3807	317	1049	640	272	500	416	613	8.326766	27.5545	16.81114
2007	4296	356	1150	783	335	679	483	510	8.286778	26.76909	18.22626
2008	4276	379	1216	728	375	615	444	519	8.863424	28.43779	17.02526
2009	4341	442	1242	722	399	576	435	525	10.18199	28.61092	16.63211
2010	4013	416	1339	807	286	492	401	272	10.36631	33.36656	20.10964

Please note that many postgraduate awards do not attract a classification other that a pass.

Please note that for clarification purposes, Level 8 and 9 awards attract a classification of:

First Class Honours
2.1 Hons
2.2 Hons
Pass

While Level 6 and 7 awards attract a classification of:

Distinction
Merit, Upper Division
Merit, Lower Division
Pass

Totals	29177	2528	8089	4871	2284	4160	3202	4043
		15488			9646			