

# IMPROVING STUDENT PERFORMANCE IN INTERDISCIPLINARY LAW UNIT ASSESSMENT BY PROVIDING ANNOTATED EXEMPLARS

---

DAVID NEWLYN AND LIESEL SPENCER\*

This article reports the findings of a study into the effect on student performance, of the provision of annotated exemplars to students in an interdisciplinary law unit. The authors conclude that for the cohorts studied, there appears to be a positive correlation between the provision of annotated exemplars and improved student performance, as measured by an increase in the grade levels awarded. This result was repeated over two cohorts in separate semesters. The article discusses similar research conducted into the use of exemplars, and explores how some benefits and drawbacks of using exemplars asserted in relevant literature, relate to this study. Scope for further research is suggested, as are possible means to add value for students to the use of exemplars in assessment practice generally, as well as in the specific interdisciplinary law unit the subject of the study. This research is the second part of a long term project, the first part of which explored student perceptions on the value of providing annotated exemplars.

## I. INTRODUCTION AND CONTEXT: THE SECOND PART OF A LONG TERM RESEARCH PROJECT

In Summer Session 2007/2008, the authors commenced a long term project intended to examine the value to students (in an interdisciplinary law unit), of providing annotated exemplars of past students' exam scripts. The project sought to investigate two separate, but interrelated, aspects of this potential value to students. The first part of the project examined student perceptions of the value of exemplars as a tool to improve the validity of an assessment task.<sup>1</sup> The aim of that project was to, from a student's perspective, measure the benefits of being exposed to annotated exemplars of exam question responses. In brief, the results of the first part of the project (obtained via a survey of students) demonstrated clearly that annotated exemplars were perceived by students to be of value.

The second part of the project, reported in this paper, questioned whether the provision to specific cohorts of students, of the annotated exemplars of past students' exam scripts, would have a statistically significant effect on those cohorts' performance in the final exam. Our answer to that question is an (albeit tentative and qualified) yes.

The first part of the project therefore elicited subjective information — whether the students thought that exemplars were of benefit to them, whereas the second part of the project inquires into whether there was an objective measurable impact upon student performance.

The limitations of this research are acknowledged. Variables between the cohorts compared in the study are an inevitable fact, as no two groups of students are homogenous. The size of data sets (student numbers) also varied between cohorts, due to factors beyond the research team's control. The aim of this paper is to present the data and draw inferences from a comparison of the marks awarded, between cohorts exposed to annotated exemplars and those that were not, in different sessions of the same unit.

---

\* Dr David Newlyn is a Lecturer, and Liesel Spencer is an Associate Lecturer, in the School of Law at the University of Western Sydney.

<sup>1</sup> David Newlyn and Liesel Spencer, 'Using Exemplars in an Interdisciplinary Law Unit: Listening to the Students' Voices' (2009) (1&2) *Journal of the Australasian Law Teachers' Association* 121.

## II. WHAT IS MEANT BY 'EXEMPLAR' FOR THE PURPOSES OF THIS RESEARCH?

In this study, the term 'exemplar' refers to past student papers from a written examination. Past cohorts volunteered their papers as exemplars. Samples were selected at each possible grade level (Fail, Pass, Credit, Distinction, High Distinction), and each paper was extensively annotated. Annotations were linked to published criteria and standards for the assessment task, to explain to what extent the past paper met the criteria and standards, and justify the grade allocated. The project methodology is described in greater detail below.

## III. SIMILAR RESEARCH PROJECTS CARRIED OUT IN THIS AREA

Karen Handley and Lindsay Williams' project, is both the most recent and most relevant to the subject matter of this paper.<sup>2</sup> Handley and Williams' study involved a subject with large student numbers and a correspondingly large team of tutors. The methodology used was the posting of marked exemplars (from a past cohort) onto the university's online learning facility, together with various interactive tools, such as a self-testing quiz, and an invitation to post queries about the exemplars to academic staff on the online discussion board for the subject. Students accessed the exemplars, but did not avail themselves of the online discussion option. Of greatest interest for this paper was the finding by Handley and Williams that 'student marks did not significantly improve following introduction of the exemplar facility'.<sup>3</sup> They note, however, that other variables in course delivery may have been responsible for this outcome.<sup>4</sup>

Mark Huxham compared student preferences for two types of feedback on formative assessment: personalised comments and exemplars in the form of model answers (ideal, or 100% answers).<sup>5</sup> Huxham's study then compared the effect on student performance in summative assessment, of the provision of the two types of feedback. The results of the study indicated that students preferred personalised comments, however exemplars had a markedly better effect on performance in summative assessment.

Chris Rust, Margaret Price and Berry O'Donovan conducted a series of voluntary 'marking workshops' wherein students marked two exemplar papers, referring to criteria and standards, engaged in small group discussions with a tutor, and were then provided with the two exemplar papers as annotated and marked by the tutor.<sup>6</sup> Students participating in the voluntary workshops showed a significant improvement in performance. This result was repeated over three years. Rust et al observed in a later publication that tracking of two of the cohorts involved in the study, revealed that improvement in performance was sustained 'at a significant, if somewhat diminished, level' in assessment tasks with similar criteria undertaken a year or more later.<sup>7</sup>

Ros Ballantyne, Karen Hughes and Aliisa Mylonas, designed a project to develop peer assessment procedures for use in large classes.<sup>8</sup> The project was refined over three 'phases', and by the third and final phase exemplars were incorporated reflecting varying levels of quality. The project team added the exemplars to address student feedback requesting more detailed explanations of assessment criteria.<sup>9</sup>

---

2 Karen Handley and Lindsay Williams, 'From Copying to Learning: Using Exemplars to Engage Students with Assessment Criteria and Feedback' (2009) *Assessment and Evaluation in Higher Education* 1.

3 Ibid, 7.

4 Ibid, 8.

5 Mark Huxham, 'Fast and Effective Feedback: Are Model Answers the Answer?' (2007) 32(6) *Assessment and Evaluation in Higher Education* 601.

6 Berry O'Donovan, Margaret Price and Chris Rust, 'Improving Students' Learning by Developing their Understanding of Assessment Criteria and Processes' (2003) 28(2) *Assessment and Evaluation in Higher Education* 147, 152.

7 Berry O'Donovan, Margaret Price and Chris Rust, 'Know What I Mean? Enhancing Student Understanding of Assessment Standards and Criteria' (2004) 9(3) *Teaching in Higher Education* 325, 333.

8 Ros Ballantyne, Karen Hughes and Aliisa Mylonas, 'Developing Procedures for Implementing Peer Assessment in Large Classes Using an Action Research Process' (2002) 27(5) *Assessment and Evaluation in Higher Education* 427.

9 Ibid, above n 8, 432.

Paul Orsmond, Stephen Merry and Kevin Reiling conducted a study in which groups of biology students constructed their own marking criteria for an undergraduate assignment, using exemplars as a catalyst for discussion and a reference point for constructing criteria.<sup>10</sup> The study measured the efficacy of exemplars in communicating standards, as well as student perceptions of that efficacy. The study's conclusions included the finding that exemplars can improve student understanding of criteria and standards.

#### IV. BENEFITS AND DRAWBACKS OF EXEMPLARS

When discussing the alleged merits or otherwise of using exemplars, it must be borne in mind that various meanings are ascribed by the literature to the term 'exemplar'. 'Exemplar' can refer to samples of work at different levels,<sup>11</sup> such as the annotated exemplars at each grade level used by this study. The term can also be taken to mean an 'ideal' or model sample of work generated by academic staff, which would receive a mark of 100%.<sup>12</sup> Sadler's classic formulation states that exemplars are 'key examples of products or processes chosen so as to be typical of designated levels of quality or competence'.<sup>13</sup> (As noted above, our use of the term 'exemplar' in this study refers to annotated exam scripts, volunteered by students from a past cohort, with scripts selected at each possible grade level.)

The benefits attributed in the literature, to the provision of exemplars to students were many and varied. Exemplars were claimed to be able to lessen student anxiety about writing in an unfamiliar format or genre, (eg the IRAC legal problem-solving model,<sup>14</sup> structured presentation of legal analysis,<sup>15</sup> or a legal letter to a client<sup>16</sup>) and clarify discipline-specific skills.<sup>17</sup> Exemplars were further said to assist students in transferring knowledge or skills acquired in one situation to perform a different task,<sup>18</sup> and provide context, allowing students to see how individual pieces of information are assembled together.<sup>19</sup> Exemplars were repeatedly cited as an important tool in communicating and clarifying standards and criteria.<sup>20</sup> This beneficial aspect of using exemplars is discussed in more detail below.

How could these asserted benefits relate specifically to students undertaking the law for non-lawyers unit used as the basis of this study? As the students are non-law students, they are unfamiliar with the discipline-specific legal problem solving methodology (IRAC) they are required to use as the basis for their answers in the final exam for the subject. The students have to, in their responses to the final exam problem questions, take the individual pieces and principles of case law and statute law studied in tutorials and lectures, and assemble

10 Paul Orsmond, Stephen Merry and Kevin Reiling, 'The Use of Exemplars and Formative Feedback when Using Student Derived Marking Criteria in Peer and Self-Assessment' (2002) 27(4) *Assessment and Evaluation in Higher Education* 309.

11 D Royce Sadler, 'Interpretations of Criteria-based Assessment and Grading in Higher Education' (2005) 30(2) *Assessment and Evaluation in Higher Education* 175, 192.

12 Huxham, above n 5, 603.

13 D Royce Sadler, 'Ah! ... so that's 'quality'', in P Schwartz and G Webb (eds) *Assessment: Case Studies, Experience and Practice from Higher Education* (2002) 130–6.

14 Patricia G Montana, 'Meeting Students' Demand for Models of Good Legal Writing' (2010, March) (Paper No 10-0183) *St John's University School of Law Legal Studies Research Paper Series* 1–2, <<http://ssrn.com/abstract=1569551>> on 16 November 2010.

15 Judith Tracy, "'I See and I Remember; I Do and I Understand': Teaching Fundamental Structure in Legal Writing Through the Use of Samples' (2005) 21 *Touro Law Review* 297, 300, 307.

16 Graham Hendry, Nikki Bromberger and Susan Armstrong, 'Constructive Guidance and Feedback for Learning: the Usefulness of Exemplars, Marking Sheets and Different Types of Feedback in a First Year Law Subject' (2009) *Assessment and Evaluation in Higher Education* 1, 6.

17 Tracy, above n 15, 309; Huxham, above n 5.

18 Laurel Oates, 'I Know That I Taught Them How to Do That' (2001) 7 *Journal of the Legal Writing Institute* 1, 1.

19 Christine Coughlin, Lisa McElroy and Sandy Patrick, 'See One, Do One, Teach One: Dissecting the Use of Medical Education's Signature Pedagogy in the Law School Curriculum' (2010, May) (Paper No 1380079) *Wake Forest University Legal Studies* 21, <[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1380079](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1380079)> on 16 November 2010.

20 Catherine Taylor, 'Assessment for Measurement or Standards: the Peril and Promise of Large-Scale Assessment Reform' (1994) 31(2) *American Educational Research Journal* 231, 243–4; D Royce Sadler, 'Specifying and Promulgating Achievement Standards' (1987) 13(2) *Oxford Review of Education* 191, 206; Handley and Williams, above n 2, 10; Margaret Price, 'Assessment Standards: the Role of Communities of Practice and the Scholarship of Assessment' (2005) 30(3) *Assessment and Evaluation in Higher Education* 215, 218.

those pieces into a structured answer. It can be hypothesised from these observations that the provision of exemplars would assist students in undertaking the final exam with a corresponding improvement in performance as measured by grades.

As noted above, the communication of standards and criteria to students is a central concern of the literature on the use of exemplars. Exemplars are suggested as a tool to transfer tacit knowledge (that is, knowledge gained via experience rather than via written instructions) regarding assessment standards and criteria, to students.<sup>21</sup> These two claimed advantages of using exemplars were discussed in greater detail in our article reporting on the first part of this study.<sup>22</sup> It can be hypothesised that student performance in the final exam the subject of this study, would be improved by exposure to exemplars as student comprehension of, and ability to meet, standards and criteria would be enhanced.

Exemplars are also put forward as a vehicle to initiate and induct students into a shared 'community of practice' with academics.<sup>23</sup> Whilst a primary focus of the literature on communities of practice concerns commonality and standardising of teaching and assessment practice amongst academics,<sup>24</sup> the idea articulates with the more established notions of communication of standards and criteria to students, and communication of tacit knowledge to students. The same techniques employed to expound criteria and standards between academics (eg members of a marking team in a large student cohort<sup>25</sup>) can be used to 'open up the nature of quality' to students<sup>26</sup> so that they can 'identify and remember techniques' which make a piece of work successful.<sup>27</sup>

Balanced against these asserted positive consequences of using exemplars are the concerns raised by a number of writers. One leitmotif in the literature was the worry that students 'parrot' from exemplars, and that ideal or model answers may 'tempt' students to mimic without thinking or analysing for themselves.<sup>28</sup> A claimed drawback of exemplars was the tendency to foster 'unhealthy dependence' on models, with students 'blindly imitating' model answers and thus failing to develop independent professional lawyering skills.<sup>29</sup> Plagiarism was also raised as a potential problem, both formally in the literature and informally in discussions with colleagues regarding this study.<sup>30</sup>

Whilst it is acknowledged that these concerns are valid, in this study there were certain mitigating factors present. In the subject concerned, different questions are set between exams from one session to the next, and the questions can address any area of law covered in the subject. The potential for exact mimicry or plagiarism is therefore minimised. A student copying directly from an exemplar, in their final exam, would not be rewarded as the exam responses would be relatively nonsensical as answers to a different set of questions than those in the exemplars. Further, in a law for non-lawyers unit, it is not a critical concern that students fail to develop independent lawyering skills, as the goal of the unit and course is not to produce lawyers.

21 D Royce Sadler, 'Grade Integrity and the Representation of Academic Achievement' (2009) 34(7) *Studies in Higher Education* 807, 820; David Carless, 'Differing Perceptions in the Feedback Process' (2006) 31(2) *Studies in Higher Education* 219, 231.

22 Newlyn and Spencer, 'Using Exemplars in an Interdisciplinary Law Unit: Listening to the Students' Voices', above n 1, 123–5.

23 Price, above n 20; Jannette Elwood and Val Klenowski, 'Creating Communities of Shared Practice: the Challenges of Assessment Use in Learning and Teaching' (2002) 27(3) *Assessment and Evaluation in Higher Education* 243, 249.

24 Price, above n 20, 216.

25 For a discussion of the relative merits of techniques to improve marking reliability between multiple markers of a large student cohort, see David Newlyn and Liesel Spencer, 'Intertester Reliability: Reporting on Assessment Methods in Interdisciplinary Units' (2008) 1 *Journal of the Australasian Law Teachers Association* 255.

26 Sadler, 'Grade Integrity and the Representation of Academic Achievement', above n 21, 824.

27 Tracy, above n 15, 341.

28 Montana, above n 14, 3; 2010; Coughlin, McElroy and Patrick, above n 19.

29 Carol Parker, 'Writing Through the Curriculum: Why Law Schools Need It, and How to Achieve It' (1997) 76 *Nebraska Law Review* 561, 583; Montana, above n 14, 4.

30 Montana, above n 14, 8; Handley and Williams, above n 2, 4; Hendry, Bromberger and Armstrong, above n 16.

A final noteworthy drawback of using exemplars is the burden on teaching staff, in drafting model answers.<sup>31</sup> This is a reality we conceded in our paper reporting the first part of this project.<sup>32</sup>

## V. TIMING OF FEEDBACK — EXEMPLARS AS A MEANS OF IMPROVING UTILITY AND FAIRNESS

As a general rule, we as academics provide the bulk of our feedback to students, regarding assessment performance, when it is too late for them to apply that feedback to the task assessed. The grade awarded for the task becomes part of the student's indelible overall grade for the subject — as Sadler states, 'by definition, all student works that contribute to course grades are summative'.<sup>33</sup> In a list of propositions as to what constitutes 'fairness' for students, Sadler includes the assertion that 'there should be few if any surprises' for students, in academics' judgment of the students' work.<sup>34</sup>

Handley and Williams see this dilemma as being best resolved by 'time-shifting' feedback, so that it is of more use to students.<sup>35</sup> Their study employed exemplars as the vehicle to move feedback back along the timeline of assessment, using the example of past students' work to make the current cohort 'vicarious learners'.<sup>36</sup>

Carless' study recorded a 'gap in perceptions' between tutors and students regarding assessment feedback, concluding that addressing this gap requires 'assessment dialogues' between tutors and students.<sup>37</sup> His study reported notable differences in tutor and student perceptions surrounding assessment feedback, and partially attributed student underachievement to a failure to engage in 'assessment dialogues'. Of interest was the observation that students found feedback on drafts of greater utility than feedback on final versions of their assignments.<sup>38</sup>

In plain terms, what academics view as optimal timing of feedback is at odds with what students value, and is also perhaps in conflict with what constitutes 'fairness' for students in assessment practice. In this context the provision of exemplars prior to the submission date for the assignment can function in lieu of feedback on a draft version, particularly when the marking load which would be associated with providing feedback on every student's draft makes that form of 'assessment dialogue' too burdensome.<sup>39</sup> As the assessment task used in this study was a final exam, the provision of 'time-shifted' feedback in the form of annotated exemplars has added value in that students do not generally obtain any feedback on formal final exams other than a mark.

## VI. SCOPE FOR FURTHER RESEARCH

A frequent theme in the surveyed literature in this area was the desirability of using exemplars not merely as stand-alone documents provided to students, but in concert with other explanatory mechanisms such as workshops, tutorial discussions and lectures.<sup>40</sup> Whilst it is acknowledged that such further elaboration would very probably add to the value of the exemplars in improving student performance, there are obstacles to providing this in a unit with large student numbers. One suggestion in the literature was that this obstacle could be overcome using peer assessment.<sup>41</sup> This was outside the scope of the methodology of this project, but is noteworthy

31 Coughlin, McElroy and Patrick, above n 19, 32; Montana, above n 14, 8.

32 Newlyn and Spencer, 'Using Exemplars in an Interdisciplinary Law Unit: Listening to the Students' Voices', above n 1, 127.

33 Sadler, 'Grade Integrity and the Representation of Academic Achievement', above n 21, 808.

34 Ibid, 809.

35 Handley and Williams, above n 2, 3.

36 Ibid.

37 Carless, above n 21, 220.

38 Ibid, 225.

39 Handley and Williams, above n 2, 3; cf Elwood and Klenowski, above n 23 (a study involving a group of 23 postgraduate students with 2 tutors, in which a one-day workshop was offered to students, who marked exemplars prior to presenting and receiving feedback on a draft essay prior to submission of the final version of that essay).

40 Carless, above n 21; Handley and Williams, above n 2, 4; Montana, above n 14, 6–7; Tracy, above n 15, 317; Parker, above n 29.

41 Elwood and Klenowski, above n 23, 249.

as a recommended enhancement to the use of exemplars to assist students in unpacking the discourse of assessment criteria and standards. Future research could explore the effect on student performance of some or all of the above in concert with the provision of annotated exemplars.

## VII. INTRODUCTION TO BUSINESS LAW

The project was conducted within the unit Introduction to Business Law ('IBL'), a popular interdisciplinary unit offered by the School of Law at the University of Western Sydney. The unit is primarily designed for students who are not undertaking a law degree. It regularly attracts student numbers in excess of 2500 per annum. The unit is usually offered during both of the main regular semesters (Autumn and Spring), but is also regularly offered during the shortened Summer Session. The Summer Session offering is delivered in a condensed format, usually being conducted in around half of the time available for the two main semesters. To maintain consistency, the face to face hours, content and assessment methods are the same in Summer Session as in the main semester offering.

During the past four years the formal assessment for IBL has consisted of three items. Assessment consists of an online multiple choice quiz (20%), a take home assignment (20%) and a two hour end of semester formal final exam (60%). The research reported in this paper involved the final exam.

## VIII. PROJECT METHODOLOGY

As discussed above, this second part of the project explored whether the provision to specific cohorts of students, of the annotated exemplars of past students' exam scripts, had a statistically significant effect on those cohorts' performance in the final exam.

At the end of the operation of Summer Session in 2007/2008 an invitation was made to all of the students who completed the unit, to make their final exam answers available for use as annotated exemplars, to be used with future students and to be used as part of a research project which would measure and formally report the value of these annotated exemplars. 104 students completed the final exam in the 2007/2008 offering of the unit. Of this number, 42 consented to the potential use of their exam answers. The authors selected suitable exemplars from the available scripts which could be used to represent the grades of Fail (F), Pass (P), Credit (C), Distinction (D) and High Distinction (HD), in accordance with the criteria for the awarding of grades as specified in the unit outline. One example of each grade was selected. The research team received both ethical approval from the university and consent from the students concerned for this project.

The next step of the process was to annotate the exam scripts with comments which reflected the grade criteria, to make evident to future students exactly why the exam script received the grade allocated, and then to package these annotated exemplars into one document.

Annotations (comments) made on the exam papers were both negative and positive, and as explicit as possible. Naturally all reference to a student's identity was removed from the annotated exemplars, as de-identification was important to protect student confidentiality. This entire process took some considerable time, with tasks including selecting appropriate exemplars, scanning the papers and writing the annotations.<sup>42</sup>

Once the final document of collated annotated exemplars was produced, it was made available to all students enrolled in IBL in the subsequent Summer Sessions (2008/2009 and 2009/2010) via the website for the unit. To draw students' attention to the availability of the annotated exemplars document, notice was given on the unit's website. Whilst no specific discussion of the exemplars took place during scheduled class time, some students did raise specific questions about the exemplars during designated consultation times.

---

42 Further details of this project and a description of the final 'product' are outlined in Newlyn and Spencer, 'Using Exemplars in an Interdisciplinary Law Unit: Listening to the Students' Voices', above n 1.

## IX. RESULTS

The research project was designed to measure the impact, on student performance in the final exam, of exposure to annotated exemplars of past student final exam papers. Impact on performance was measured by reference to student marks. No attempt has been made to specifically identify which students downloaded and used the exemplars and/or exactly how any of the students may have used the exemplars that were made available.<sup>43</sup>

In order to achieve this stated objective, data on student marks is presented from:

- (a) two corresponding Summer Session offerings of IBL, where no use of or exposure to annotated exemplars was undertaken;  
and compared to data on student marks from
- (b) two offerings of IBL, where students were exposed to annotated exemplars provided by the teaching staff.

The two cohorts which did not have an exposure to annotated exemplars were Summer Session offerings in 2006/2007 and 2007/2008. The two cohorts where students were exposed to annotated exemplars, and for comparison purposes, are Summer Session offerings in 2008/2009 and 2009/2010.

At the outset we state clearly that these are not homogenous groups. We fully acknowledge the inevitability of many variables between these groups. These variables include the most obvious possible differences such as gender and age, but extend potentially ad infinitum, to include differences such as educational background, tertiary entrance scores, whether students obtained examples from previous students at this or other tertiary institutions or from other commercially available sources and whether or not the student may have undertaken the unit previously and not been successful.<sup>44</sup> This report seeks only to present the data as we find it, that is, we offer a comparison of the marks awarded between those students who were exposed to annotated exemplars and those that were not in different sessions of the same unit.<sup>45</sup>

Given the total number of results for the unit, the authors calculated the average mark, the median mark and the percentage of students who achieved an F, P, C, D and HD for the final exam.

---

43 We can report that there was a record of 212 students downloading the exemplars document in Summer Session 2008/2009 and 84 students in 2009/2010. We readily acknowledge that these numbers are greatly in excess of the actual number of students who were enrolled in the course at any one time, and that therefore this is a flawed method of recording which students actually downloaded the document, and/or the exact number of students who downloaded the documents and used them to any extent in preparation for completing the final exam. These figures record only the number of times that the document was downloaded. No record of which individual students downloaded the document was possible to obtain, given the limits of the e-learning environment.

44 The problems associated with comparing data sets have been extensively examined. Further information about this matter can be found at Barbara G Tabachnick and Linda S Fidell, *Using Multivariate Statistics* (3rd ed, 1996); Thomas Black, *Doing Quantitative Research in the Social Sciences: an Integrated Approach to Research Design, Measurement and Statistics* (1999); and William S Cleveland, *Visualizing Data* (1993). These issues are also acknowledged in Handley and Williams, above n 2, 8.

45 We report only on those students who attempted the final exam in each of the identified sessions. No account is made of students who may have completed interim items of assessment but attempted the final exam.

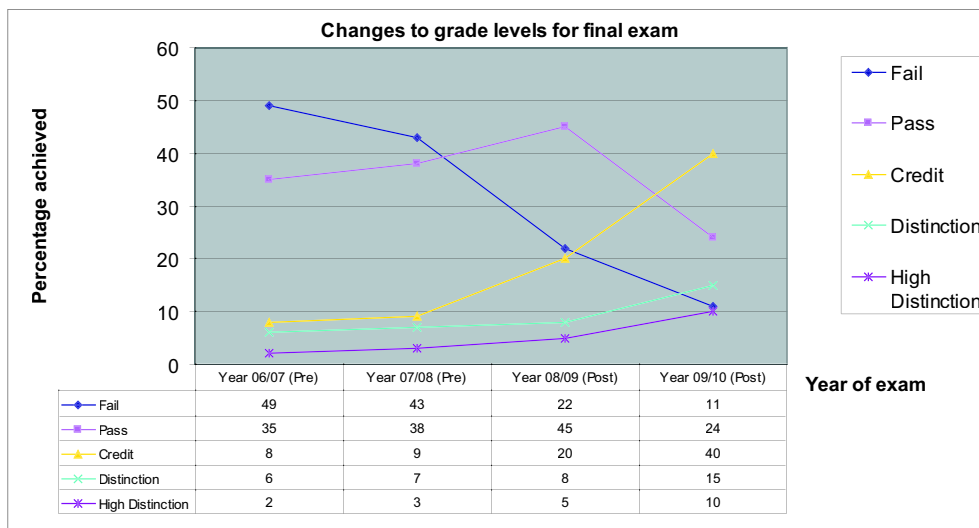
The following table displays all of these results.

Table 1. Full statistical results

SUMMER 2006/2007	SUMMER 2007/2008	SUMMER 2008/2009	SUMMER 2009/2010
Number of results = 128	Number of results = 104	Number of results = 95	Number of results = 30
Average = 21.8/60	Average = 25.3/60	Average = 36.1/60	Average = 37.6/60
Median = 24.2/60	Median = 26.4 /60	Median = 37.0/60	Median = 37.9/60
F (0–49%) = 49%	F (0–49%) = 43%	F (0–49%) = 22%	F (0–49%) = 11%
P (50–64%) = 35%	P (50–64%) = 38%	P (50–64%) = 45%	P (50–64%) = 24%
C (65–74%) = 8%	C (65–74%) = 9%	C (65–74%) = 20%	C (65–74%) = 40%
D (75–84%) = 6%	D (75–84%) = 7%	D (75–84%) = 8%	D (75–84%) = 15%
HD (85–100%) = 2%	HD (85–100%) = 3%	HD (85–100%) = 5%	HD (85–100%) = 10%

The details of the percentile changes to grades are better illustrated by the following chart.

Chart 1. Percentile changes to grade pre/post annotated exemplar exposure



## X. DISCUSSION AND CONCLUSIONS

A number of important statistical changes from the data presented above are evident.

It is, for example, apparent that the average and mean for students increased in all cohorts exposed to the annotated exemplars provided. That is, in the pre exposure session of 2006/2007 the average was 21.8 and the median was 24.2 and in 2007/2008 the average was 25.3 and the median was 26.4. This can be compared to the same statistics in the post exposure sessions of 2008/2009 and 2009/2010 where the averages were 36.1 and 37.6 and the medians were 37.0 and 37.9 respectively. This is a pronounced change and demonstrates a significant increase in the scores awarded.

Some significant changes to the percentages of various grades awarded for the final exam papers are also evident. It is apparent, for the most part, that there has been a noteworthy reduction in the awarding of F grades and a proportionately greater awarding of the higher grade levels.



The exception to this statement lies with the awarding of P grades. Pre-exposure to exemplars in 2006/2007 and 2007/2008, 35% and 38% of students respectively were awarded a P grade. This changed in the post exposure to exemplar sessions to 45% and 24% in 2008/2009 and 2009/2010. Therefore in the 2009/2010 session the proportion of P grades actually decreased, although an analysis of the higher grades of C, D and HD reveals uniformly that these grades all increased, in some instances quite dramatically.

A specific examination of the awarding of the F grade reveals that it changed in the pre-exposure cohorts of 2006/2007 and 2007/2008, from 49% and 43% of all grades awarded, to 22% and 11% in the post exposure cohorts of 2008/2009 and 2009/2010. Again, this is a significant achievement, representing a significant decrease in the number of students who had previously failed the final exam.

At the other end of the spectrum, HD results have increased from very low pre-exposure cohort results of 2% and 3%, to post exposure cohort results of 5% and 10%.

As discussed above, the limitations of the study are acknowledged. A relatively uncomplicated comparison has been offered, presenting the data as found, and inviting inferences to be drawn. A further limitation associated with comparing the different data sets available, is the number of results available. Table number 1, above, shows that this has been falling since the 2006/2007 offering. The significant reduction in 2009/2010, of only 30 results, is due to the fact that the unit changed from a government sponsored HECS offering to a full fee paying unit during the Summer Session offering. This is a factor which has not been taken into account in the comparing of data sets and which was beyond the control of the research team.

We also acknowledge that there has been no attempt to classify results, by classifying students according to who may have downloaded the annotated exemplars or otherwise obtained them from friends, and referencing this against how students actually used the annotated exemplars. It is therefore plausible that only a small number of students actually looked at the annotated exemplars and that the changes in results could be due to other external factors. The reality is that many of these potential variables would be difficult or impossible to measure and account for.

What this article does present is evidence of changes to the averages, medians and percentages achieved for individual grade ranges, between cohorts of students who were never presented with annotated exemplars, directly contrasted with cohorts of students who were presented with annotated exemplars. We are aware of no other obvious or specific event or variable which could be used to account for such dramatic changes to the results as are presented above.

Based on the data available as a result of this research project, we suggest quite strongly that in this interdisciplinary law unit, it can be inferred that annotated exemplars have had a significant and positive impact upon student performance in the final exam assessment, as measured by the marks which students received for their final exam papers. There appears to be a positive correlation between the provision of annotated exemplars and improved student performance. This result was repeated over two cohorts in separate semesters. The results of the study indicate that the effort involved in the production and supply of annotated exemplars to students was worthwhile as it has resulted in a significant improvement in the assessment performance of the students.