

To grade or not to grade: Student perceptions of the effects of grading a course in work-integrated learning

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This paper aims to demonstrate the benefits of introducing the typical course grading process to a work-integrated learning course in exercise science in order to motivate students to produce their best efforts in assessment tasks relevant to their future employability. The course had incorporated a non-graded pass/fail system of assessment since it was first offered but changed to a typical university grading process in 2011. At the completion of the course a two-page questionnaire was administered to all students to determine their opinions of changing from a non-graded to a graded form of assessment. Additionally, seven students volunteered for a 20 minute individual interview to examine how the grading of the course affected a number of factors related to their learning in the course. The results of the study indicated that students supported the change from a non-graded to a graded system of assessment. Minimal negative concerns were reported by students. The findings suggest that students prefer the use of a graded system of assessment in a work-integrated learning course in exercise science. They perceived that grading of the course increased their motivation to submit high quality responses for all assessment items and provided them with an opportunity to improve their grade point average (GPA), for entry into post-graduate programs, as well as rewarding them for their efforts towards academic excellence and preparing them for their future careers. (*Asia-Pacific Journal of Cooperative Education*, 2013, 14(4), 223-232)

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BACKGROUND

Work-Integrated Learning (WIL) and Higher Education

McLennan and Keating (2008) suggest that the current interest in WIL in higher education is “closely linked to governments’ and industries’ concern with lifting workplace participation and productivity, addressing skills and labor shortages and keeping pace with increasing demand and intensifying international competition” (p. 2). WIL has traditionally been used to prepare students’ work-readiness in professional education. However, WIL is now perceived as providing an important opportunity for improving the work-readiness of all graduates, even in areas not linked to clear employment outcomes. A recent report commissioned by the Business Industry and Higher Education Collaboration Council (Business Consultancy, 2007) emphasized that career and employability are necessarily a lifetime learning and development process. Successful WIL activities in higher education provide a vehicle for ensuring an academically sound, skilled and productive workforce, which can contribute to the future economic growth and improvement of the Australian economy (Ferns & Moore, 2012).

Benefits of Work-integrated Learning

Co-op and cooperative education are terms that are considered synonymous with work-integrated learning (WIL). The benefits of work-integrated learning have been identified in numerous studies. Dressler & Keeling (2011) summarized these into four main categories: academic benefits (e.g., higher retention rate); personal benefits (e.g., enhanced self-confidence); career benefits (e.g., career planning); and work skill development benefits (e.g., increased competence). These authors postulate that “with intentional, focused and broad-based effort in the co-op field, student benefits gained from participation in cooperative

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education can increasingly be recognized as a significant contributor to student success academically and in the workplace" (Dressler & Keeling, 2011, p. 271). Another important benefit of WIL is its effect on student motivation (Freudenberg, Brimble, & Vyvyan, 2010). The accumulated effect of these benefits is to improve students' motivation toward their studies. Further studies indicate that WIL promotes student engagement and enhances their perceptions of their educational experience (Precision Consultancy, 2007; Harvey, Moon, and Geall, 1997; Patrick et al., 2008). WIL programs present a range of benefits to students in terms of their learning, graduate outcomes, confidence and self-efficacy, while improving their ability to transfer classroom skills to the workplace (Freudenberg, Brimble, & Vyvyan, 2010). Ferns and Moore (2012) suggest that the benefits of providing WIL opportunities for students "are immense and will increasingly become a necessity for universities as they move into an evidence-based and standards focused regulatory framework" (p. 219). The purpose of this paper is to demonstrate the effects of increasing student motivation through changing the grading process to maximize these benefits and better prepare students for the workplace.

The Role of Motivation in Student Involvement in WIL

Motivation has been defined as the direction and intensity of one's effort (Sage, 1977). The direction of effort relates to the degree to which an individual seeks out or approaches certain situations. The intensity of effort refers to the amount of effort a person produces in a specific situation. For most people, direction and intensity are closely related (Weinberg & Gould, 2003). Motivation plays a significant role in student involvement and has been defined as "a student's willingness, need, desire and compulsion to participate in, and be successful in, the learning process" (Bomia et al., 1997). Critical reflection (Dewey, 1910; Ebrall, Repka, & Draper, 2008) and formative feedback (Nicol & McFarlane-Dick, 2006) are significant drivers of student motivation and may lead to preferred lifelong learning outcomes (Kolb, 1984). Bandaranaïke and Willison (2010) stress the motivational drive for student engagement is dependent on student feedback. Thus, those involved in the curriculum design of work-integrated courses need to ensure the features of critical reflection, formative feedback and authentic assessment tasks are given high priority in their consideration, particularly as student engagement in learning has been found to be an important factor in student satisfaction with their university experience (Coates, 2008).

Assessment of Student Performance in Work-integrated Learning

Boud and Falchikov (2006) suggest that higher education institutions must provide a foundation for lifelong learning in work and other social settings. As the process of assessment is intrinsically linked to student learning and performance (Hodges, 2011), practitioners involved in work-integrated learning need to use the assessment process to assist students develop skills that will optimize their employability throughout their working years. McDowell and Sambell (1999) indicate that students value assessment tasks "which help them to develop knowledge, skills and abilities which they can take with them and use in their future careers" (p. 81). Work-integrated learning courses need to ensure students are actively involved in the assessment process. Patrick et al. (2008) in a national scoping study of WIL indicated the importance of "authentic assessment" in the development of positive student experiences in WIL placements, whilst Cumming & Maxwell (1999) emphasize that authentic assessment needs to be contextualized through a coherent learning, teaching and assessment process. The focus of this paper is to identify student perceptions of the use of

authentic assessment tasks in order to integrate personal, professional and academic development and thereby increase employability.

Assessing student performance in work-integrated learning (WIL) is a difficult task involving many decisions by a number of stakeholders (Billett, 2008). Validity and reliability are particular concerns due to the “multiple variables that affect both the design and subsequent implementation of assessment practices” (Hodges, Smith, & Jones, 2005, p. 50). Criterion-referenced assessment, which compares an individual’s score with a specific criterion, is the form of assessment most commonly used in WIL (Brown & Knight, 1994) and considers the competency of a student along a continuum of achievement. The purpose of this process is to determine the extent to which the standards have been achieved (Abeysekera, 2006; Bates, 2003) to allow more consistent and objective judgment (Biggs, 2003).

The Use of Grades for Assessment

Brown and Knight (1994) noted that one of the first questions asked by students is whether a course is to be assessed. “Students have become much more strategic in their study patterns, rarely studying for the love of learning alone, but concentrating their energies on what will get them a better degree or a higher project mark” (p. 33). Students find study without assessment a disheartening experience. If they are not provided with feedback, they tend to reduce their efforts unless their internal motivation is very high. Motivation and feedback in assessment tasks are therefore highly interlinked and can have a significant influence on students’ performance in the grading process.

Grading systems that exist in the higher education environment can powerfully mould the professional development of students. The primary purpose of any grading system is to measure student achievement of established learning objectives. Performance data lets students know where they stand in the development of needed competencies. A traditional grade stratifies students according to their level of achievement and can motivate students, reward effort and possibly signify suitability for a potential area of study (Miller, 2009). In the context of higher education, Laska & Juarez (1992) suggested that the use of grades for learning has been the subject of a long, ongoing debate. These authors examined the semester grade point average (GPA) outcomes between students whose grades are averaged into their cumulative GPA with those who take courses that use a pass/fail only basis. Laska and Guarez found that students in the former category achieved an increase of 11.4% above the average in the mean semester GPA.

Williams and Bateman (2003) reviewed further research conducted on the grade debate and concluded that grading added to the complexity of assessment. They reported that the main drivers for graded assessment came from industry and students, who demonstrated dissatisfaction with the competent/not-yet competent reporting. Rumsey (1997) and Smith (2000) identified that some training providers used graded assessment as a marketing tool in the belief that dispensing a significant number of high grades makes the provider ‘look good’. Dickson and Bloch (1999) noted that graded assessment ‘added value’ to competency standards, whilst Griffin, Gillis, Keating, and Fennessy (2001) indicated that the selection paradigm, drives the need for graded assessment.

As feedback on performance can have significant influence, it is important that it accurately reflects true achievements. Johnson, Penny and Gordon (2008) assert that graded reporting affords such an outcome as it potentially provides more information than binary reporting techniques. Smith (2000) reported a majority of respondents suggested that (ungraded)

competency-based training and assessment were promoting mediocrity in the learning process. Andre (2000) indicated that the use of graded competency-based performance measures in assessing workplace performance needs consideration. With the current international trend for nurse education and other clinical sciences to be situated within the university sector, clinical assessment based on merit rather than pass/fail or non-graded pass is becoming more relevant. High achieving students are disadvantaged by non-graded or pass/fail grading systems, as their achievements are not reported to employing bodies, selection committees for postgraduate programs and scholarships (Biggs, 1992). Andre (2000) suggested that grading categories should be consistent with standard university graded assessment policy.

Grading is a powerful part of the motivational structure of university courses. Educators can use this to their advantage by employing grades as “academic carrots”. Research has demonstrated that students achieve more academically when they are graded under a traditional rather than a pass-fail system (Merva, 2003). Burke (2006) suggests that students’ work should be graded with percentage or letter grades to ensure students realize the benefits that can be derived from a thoughtful and well-constructed grading scheme. Hager, Athanassou, and Gonczi (1994) considered that it is possible to both support and oppose graded assessment, depending on the circumstances, and inferred that the decision to grade or not to grade is ultimately a policy decision, which should be based on the benefits to be gained and whether grading is the most appropriate strategy to achieve the desired benefits. Quirk (1995) adopted a similar approach, noting that the benefits and purposes must be clearly identified when making a decision to grade or not to grade.

Case Study

Field Project B is an optional third year course in the Bachelor of Exercise Science program conducted at Griffith University (Gold Coast). Normal enrolments in the course range from 20-50 students out of a cohort of approximately 120. The rationale for including this course is to make students aware of the requirements and work environment of the industry they wish to enter. Students are required to complete a minimum of 80 hours work experience in an industry of choice. The course includes both career development learning and WIL (Reddan & Rauchle, 2012) with 13 two-hour lecture/workshops. Students are introduced to professional and personal techniques to assist them to gain entry into the workplace and to function successfully once they are in the workplace.

The course was non-graded until 2011 with students receiving either a non-graded pass or fail grade. Student responses were sought from the 2010 cohort via questionnaires, which indicated that the course should be graded to increase their motivation and performance in the various assessment items. Discussion took place between the lecturer and the students concerning the items that should be included as assessment tasks. In 2011 the assessment items and relevant percentages proposed for the course were as follows:

- Weekly postings (on Blackboard²) 20%
- Resume and job application 20%
- Interview performance & reflection 20%
- Poster presentation³ 20%
- Performance in field work placement 20%

² Blackboard is an online course management system

³ Discussion of development of graduate attributes through placement

This particular research focused on an evaluation of the perceived benefits of grading versus non-grading of the course after its completion in 2011.

RESEARCH DESIGN AND METHOD

Research Purpose

The aim of this research was to examine the effectiveness of changing the course status, from non-graded to graded, of a WIL course focused on preparing students for real-world positions in industries relevant to their undergraduate studies in Exercise Science. The results will be used to improve outcomes for future students and may be useful to assist in the decision-making for conveners of similar WIL programs, who may be considering similar changes.

Procedure

All students completed a two-page questionnaire to allow them to answer freely and explain their perceptions, suggestions and experiences. The researcher developed the questionnaire, which consisted of short answer questions focused on different aspects of changing the status of the course from non-graded to graded. Some questions were closed to elicit specific information, while other questions were open to allow students to provide personal opinions of the altered assessment process.

A semi-structured interview was also used to allow the researcher using the broad topic in which they are interested to guide the discussion. An interview schedule was developed around a list of topics without fixed wording or fixed ordering of questions. The content of the interview was focused on the issues that are central to the research questions, but the type of questioning and discussion allowed for greater flexibility than a survey interview (Minichiello, Aroni, Timewell, & Alexander, 1995). The interviews were tape-recorded, followed by transcription of the data. Content analysis (Holsti, 1969) and grounded theory (Glaser & Strauss, 1967) were utilized to allow the theory to develop from the analysis of the collected data.

Research Questions

The study included the following research questions:

1. What were the perceived advantages and disadvantages of a graded, rather than a non-graded, status for Field Project?
2. How appropriate did students consider the individual assessment items?
3. How has grading of the course affected:
 - a. Student motivation and effort in the course?
 - b. Student interaction within the course?
 - c. Group cohesion and competition?
 - d. Students' sense of achievement at the completion of the course?
 - e. Student overall enjoyment of the course?

Sampling

The research was conducted using 29 third year exercise science students who made up the entire cohort in the Field Project course at Griffith University. All students responded in a class workshop to a self-completion questionnaire specifically designed for this study. The two-page questionnaire allowed students to provide specific information on aspects of

assessment and grading (questions 1 & 2). In addition, seven students volunteered for a 20 minute interview following completion of the questionnaire to seek more in-depth responses on the effects of grading (question 3).

RESULTS

The results of this research study are reported using the three research questions as headings.

What Were the Perceived Advantages and Disadvantages of a Graded, Rather Than a Non-Graded, Status for Field Project?

The students indicated a number of advantages of grading the course. The most frequent suggested benefits include (number of students shown in brackets – maximum 29):

- Improved grade point average to assist entry into postgraduate programs (16);
- Increased motivation and effort (13);
- Increased course focus and value (8); and
- Recognition, reward and satisfaction (5).

In response to their perceptions of the disadvantages of grading the course, 13 students (45%) suggested there were no disadvantages. Some of the disadvantages mentioned by students included:

- Takes up extra time and reduces time to spend on other courses (2);
- No reward for effort (2); and
- Focus on marks rather than performance on placement (2).

How Appropriate did Students Consider the Individual Assessment Items?

Students were asked which individual items they considered to be appropriate for assessment purposes. Overall, their responses indicated highly positive perceptions in relation to the suitability of the assessment items. All students suggested that the cover letter and resume, interview performance and fieldwork placement were appropriate. Of the students, 25 (86%) agreed that the interview reflection was relevant, whilst 24 (83%) indicated that the poster presentation was a suitable item of assessment. Several students had minimal prior experience and feedback in writing concise accurate statements, which would account for only 21 (72%) suggesting that the writing of weekly postings was an appropriate assessment item.

The perceptions of the seven students who volunteered for a personal interview have been utilized as data for discussion in response to the following questions:

How has Grading of the Course Affected:

a. *Student motivation and effort in the course?*

The general consensus of responses suggested that grading had significant positive effects on student motivation and effort in the course. Students indicated that, if the course had been non-graded, they would have aimed only for a pass standard. Student 2 noted: "I wouldn't be paying as much attention if I knew I wouldn't be graded". Student 3 commented that she would not have enrolled in the course if it was not graded. She indicated that the grading provided recognition for work completed and that feedback throughout the semester motivated her to work harder to ensure her marks were of the highest standard. Student 4 also considered that there was no motivation for any extra effort if the course had been non-graded. "I wouldn't have prioritized the assessment so highly". Several students mentioned the effects of grading on their GPA (grade point average). Student 5 indicated that "if you

didn't have the grading going towards your GPA, you would have a lot of people who would not do their best work and would rush it to get just a pass". Student 7 emphasized the importance of receiving regular feedback and marks as an indicator of the direction in which she was heading. Several students commented on how the course had motivated them to focus on skills that affect their employability.

b. *Student interaction within the course?*

Opinions were mixed as to the effects of grading the course on students' interaction with their peers. Three students indicated that grading created more interaction, whilst four suggested that it had little effect. Student 1 perceived that there was more interaction due to the small class size. Student 3 enjoyed the competition that grading created on a week-to-week basis. Student 7 reiterated these comments and also indicated that students sought to help each other improve their work. On the other hand, student 2 indicated that grading made no difference as she was friendly with quite a few students beforehand. Student 4 provided similar comments but noted that students reviewed other students' work for comparative purposes. Student 6 believed that the interaction was no greater, but students probably spoke to each other on a more professional level. "If the course was non-graded, I probably would have been more casual and that would have been reflected in the assessment items as well".

c. *Group cohesion and competition*

In general, students perceived that the grading of the course produced healthy competition, which assisted the development of group cohesion. Student 3 represented student opinions when he asserted: "There was a level of healthy competition. I think it pulled us together". Student 4 emphasized that self-competition was intrinsically related. "It was all about advancing my own mark about myself. I would be very competitive with my own mark but not so much with others. Grading increased my motivation not to let anything slide". She would read through her drafts, make changes and became more critical of her own work. Student 5 noted that weaker students asked those who gained good marks to proofread their work and suggested that "it was a good idea to have the individual marks visible", as it made those who scored low marks realize that they needed to put in greater efforts to improve their results.

d. *Students' sense of achievement at the completion of the course?*

All students commented that the grading of the course had a positive effect on their sense of achievement. Student 1 indicated she gained more in the classroom activities than in the workplace. Conversely, students 2 and 4 suggested that their greatest sense of achievement came from their workplace assessments. Student 3 noted that grading had made the course more worthwhile. "I loved the course but I loved it more because I have recognition of how much effort I put in". She considered that the course would not have had such outcomes if she couldn't compare her marks with other students. Student 6 reinforced this notion and considered that "if I put in this much effort and only received a non-graded pass, I would have looked towards the course a little negatively". She suggested that there was a strong relationship between a student's effort and his/her grade, which would not have been evident if the course had been non-graded.

e. *Student overall enjoyment of the course?*

Six of the seven students interviewed considered that grading had increased their enjoyment of the course. One student indicated that grading probably made little difference to his enjoyment, but he stated that he would not have taken the assessment items as seriously if they had been non-graded. Student 1 mentioned that the grading of the course had introduced an element of competitiveness into the course with positive effects. Student 3 perceived that she would not have had the level of enjoyment she had experienced if she had not received a grade. "If I didn't get the recognition of how hard I worked, I would just be so disappointed. The grading makes it worthwhile – it's vital". Student 5 perceived that students demonstrate greater application and gain most benefit from the learning experiences when courses are graded. The effects of grading on student enjoyment are clearly evident in the response from student 6, "As the course is graded, I probably enjoyed it more because there was a greater sense of satisfaction from the results I was getting". Student 7 expressed similar sentiments, suggesting that grading provides a direction for the course. "Getting a good mark puts you in a positive mindset – it makes you want to keep achieving that same mark".

DISCUSSION AND CONCLUSIONS

The results of this research clearly identify positive benefits of changing the status (from non-graded to graded) of the Field Project, a university course which combines work-integrated learning with career development learning, in order to prepare students for employment in industries related to exercise science. Thus, it would seem to be a worthwhile outcome. In summary, there were several important findings from this study. Firstly, the perceived advantages of changing to a graded status far outweighed the perceived disadvantages. From the students' point of view, it would seem worthwhile to grade WIL courses rather than use an ungraded (pass-fail) assessment system. Secondly, student responses indicated highly positive perceptions of the appropriateness of the assessment items developed for the course. If course conveners decide to use a graded system of assessment, it is highly important that students consider the selected assessment items to be appropriate for the purpose of grading. Specific assessment criteria need to be developed in consultation with WIL colleagues to avoid any difficulties that might develop in attempting to grade inappropriate assessment items. Discussion needs to occur between teaching staff and students following delivery of such courses to ensure that the items designed for assessment are valid, reliable and appropriate to the learning objectives of the course and related program.

Grading the course produced significant positive effects on student motivation, sense of achievement and overall enjoyment of the course. Group cohesion was enhanced through healthy competition as a concomitant outcome of changing to a graded assessment process. This result assisted individual learning and motivated weaker students to increase their efforts. However, course conveners need to be aware that grading can sometimes cause excessive competition between students and possible negative perceptions outcomes e.g., students becoming focused on results rather than learning. Finally, students considered that grading increased their efforts to prepare for their future careers through an emphasis on skills relevant to employability. As exercise science students are entering a very competitive marketplace, they appreciate any process that might increase their potential to gain

employment following graduation. Further research involving students in WIL courses in other faculties and universities would provide interesting comparisons.

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If the manuscript is deemed acceptable for publication, and reviewers' comments have been satisfactorily addressed, the manuscript is prepared for publication by the Copy Editor. The Copy Editor may correspond with the authors to check details, if required. Final publication is by discretion of the Editor-in-Chief. Final published form of the manuscript is via the Journal website (www.apjce.org), authors will be notified and sent a PDF copy of the final manuscript. There is no charge for publishing in APJCE and the Journal allows free open access for its readers.

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Types of manuscripts the Journal accepts are primarily of two forms; *research reports* describing research into aspects of Cooperative Education and Work Integrated Learning/Education, and *topical discussion* articles that review relevant literature and give critical explorative discussion around a topical issue.

The Journal does also accept *best practice* papers but only if it present a unique or innovative practice of a Co-op/WIL program that is likely to be of interest to the broader Co-op/WIL community. The Journal also accepts a limited number of *Book Reviews* of relevant and recently published books.

Research reports should contain; an introduction that describes relevant literature and sets the context of the inquiry, a description and justification for the methodology employed, a description of the research findings-tabulated as appropriate, a discussion of the importance of the findings including their significance for practitioners, and a conclusion preferably incorporating suggestions for further research.

Topical discussion articles should contain a clear statement of the topic or issue under discussion, reference to relevant literature, critical discussion of the importance of the issues, and implications for other researchers and practitioners.



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