



REVIEW ARTICLE

Innovative group-facilitated peer and educator assessment of nursing students' group presentations.

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Abstract

Background: Recently changes in undergraduate assessment and of student nurses in particular have reflected changes within higher education more generally, including innovations such as group work and group presentations. However, assessing group presentations is inimically difficult due to 'free-riding', mark-clustering and student group composition.

Method and materials: (1) A literature review was undertaken drawing on: Australian Education Index, British Education Index, the British Humanities Index, the British Nursing Index, EBSCOHOST EJS and Google™ Scholar; (2) educator-determined groupings of second year undergraduate children's nursing students participating in educator- and peer-assessed group presentations, by academic ability, were introduced; (3) a three stage process to evaluate the innovative assessment intervention and its effectiveness was adopted through: (i) informal in-course student group discussion, (ii) completion of a post-assessment structured student questionnaire and (iii) further informal discussion with students on completion of the unit of study.

Results: Students highly regarded educator-formulated groupings because they (1) were seen as fair, (2) removed 'difficult' decisions, (3) offered the 'novelty' of student contracts and (4) were highly valued as a learning experience. The evaluation also identified that a limited range of marks were awarded by educators and students alike to participating groups. An anticipated wider distribution of marks did not occur. Furthermore, the effects of efforts to minimise 'free-riding' of students who made limited contributions to presentation preparations were limited.

Conclusion: Evidence-based assessment strategies to determine undergraduate learning through group presentations results in continued challenges for nurse educators and for higher education in health more generally.

Keywords: Assessment; group presentations; peer assessment; educator-determined groupings; nursing students

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Introduction

Diminishing student satisfaction with assessment and feedback within the United Kingdom (UK)¹ (Unistats 2012) makes this an important area for policy, debate and 'innovations' in higher education institutions (HEIs).² Assessment determines and legitimises student learning and progress^{3, 4} and facilitates feedback to students, acting as a driver and motivator for learning.^{5,6} Assessment has traditionally comprised examinations, sometimes as standardised multiple choice tests, and essays.⁷ However, over the past two decades, driven by declining resources and a desire for innovative assessment,⁸ considerable changes to student assessment have occurred.^{4, 8-10}

Criticism of traditional assessments like examinations include: the encouragement of



superficial or 'surface' learning,¹¹ coaching, 'test wiseness' and inability to test varying types of knowledge and learning styles.^{4, 5, 7} Furthermore, traditional assessments are poorly suited to students with dyslexia, a particular issue for nursing students, and for whom high failure rates have been reported.⁵ Essays, in particular, have been criticised because whilst they may allow for in-depth assessment of learning, they are time consuming and expensive to mark⁷ and open to grading bias.⁴ Furthermore, all forms of assessment may be equally unreliable and lacking in validity to measure what they claim¹² and may 'teach to test'.⁴ Such views have been borne out through research with nursing students, affirming views about students being taught to pass assessments.⁵

Limitations can be addressed by selecting assessment methods more closely aligned with intended learning outcomes (ILOs).^{5, 13} Consequently, it is now widely acknowledged that a diversity of assessment methods will benefit student assessment across a range of abilities and learning styles.^{4, 5, 14} Assessed group work is one such initiative and it is the 'innovative' assessment of group work following a five week modular unit within the second year of an undergraduate children's nursing programme within our university, which is the focus of this paper.

This paper adds to a growing body of literature concerning assessment challenges in higher education through: (1) an extensive English language review of literature, dating from 1979 onwards, which explored challenges associated with assessing student group presentations, drawing on: Australian Education Index, British Education Index, the British Humanities Index, the British Nursing Index, EBSCOHOST EJS and Google™ Scholar; (2) introducing educator-determined groupings of second year undergraduate children's nursing students participating in educator- and peer-assessed

group presentations, by academic ability and (3) a three stage process to evaluate the innovative assessment intervention and its effectiveness was adopted through: (i) informal in-course student group discussion, (ii) completion of a post-assessment structured student questionnaire and (iii) further informal discussion with students on completion of the unit of study.

METHODOLOGY:

The literature

Group work

Group work has the potential to enhance learning by increasing self-confidence, problem-solving and team-working skills, promoting 'deep' learning¹¹ and shared understanding; interpersonal skills, such as oral communication, and management skills which prepare students for life-long learning and the work environment, are also enhanced.^{4, 9, 12, 15-17} It also promotes cooperative learning where students learn from and with each other.^{12, 15, 16} Group working has been widely adopted at all levels of education as a means of encouraging socialisation and sharing ideas between students.^{9, 15, 16, 18}

Problems in group work can occur through unequal student participation^{15, 17} and poor group management may result in dysfunctional groups creating negative student experiences.¹⁶ With careful management and facilitation, problems may be overcome and can result in universal appeal of group work within HEIs.^{12,17}

Assessing group work

The purpose of assessing group work will be determined by the discipline and/or the nature of the learning required. For example, assessment may arise from a 'group project',¹² the formulation of a 'product',¹⁸ a written project report,¹⁸ a series of 'tasks' for which a group solution has to be agreed¹⁹ or the compilation of

an unstructured case study.¹⁶ Commonly, group work results in assessed student group presentations.^{4, 9, 18, 20} The wealth of learning opportunities afforded to students through group presentations have been viewed positively by educators and students alike.^{9, 21} Benefits of assessed group presentations are deeply intertwined with those associated with group work learning itself and the experience benefits both able and less able students.¹⁶ The group assessment process can generate 'deep' rather than 'surface' learning.¹²

Despite the universality of group work, problems with its assessment are acknowledged.^{12, 15,16,18,19} For example, it has been argued that summative assessment is only valid when students are individually graded for their contributions yet individual marking contravenes the ethos of group working.¹⁶ 'Free-riding', 'freeloading' or 'social loafing', terms used interchangeably to describe students who reap rewards of others' contributions whilst contributing little themselves, present particular challenges for educators in identifying individuals' contributions.^{4,12,15-19} One solution borne out in research undertaken by Ballantine and McCourt-Larres¹⁶ with educators of accounting students, indicates this concern can be overcome where educators invest considerable time intervening. This could include limiting group sizes, identifying individuals' contributions, or awarding two grades – one at group level and one at an individual level.^{4, 16} In such situations, tutors may reserve the right to penalise 'free riders' by reducing group marks awarded to individuals or discussing with groups concerned and apportioning marks accordingly.¹⁶ Alternatively, students may develop and design a group contract specifying responsibilities of each group member, signing their contracts at the outset and again on completion of the task, to ensure each group member has fulfilled their responsibilities.⁴ An additional solution could be to devise supplementary individual assessment measures.¹⁵

However, these solutions cannot counter Almond's¹² argument that an acceptable procedure to derive individual marks from group marks, arising from assessed group presentations, may be unattainable.

Peer- and self-assessment

To achieve group grading, a range of mechanisms exist including educator assessment, peer assessment, self-assessment or a combination of approaches. Peer assessment has increased during the past decade and students who actively engage in the process interact and organise their assessed work well.^{14, 22} Peer assessment can deter 'free riding', identify individuals' contributions and potentially benefit the development of critical thinking skills.¹⁶ Analogous with student group presentation theory, peer assessment, much like group presentations themselves, has been viewed as benefiting 'deep' learning.¹⁴ However, the benefits of peer assessment are counterbalanced by students not always taking peer assessment of their contemporaries seriously unless they themselves are peer assessed, and feeling uncomfortable when criticising their contemporaries.^{12, 16} Another disadvantage concerns the potential for peer-assessed grades to cluster at an average mark,^{16, 19} questioning the validity of peer assessment.¹⁶

Self-assessment offers an alternative or complement to peer-assessment, contributing to student empowerment,²³ achievement and motivation.^{24, 25} However, 'self-assessment' is frequently aligned with 'reflection', 'practice competence' and/or 'evaluation',^{3,25,26,27} making a clear definition and understanding of the term problematic. Nonetheless, attempts to define self-assessment have been made^{24, 25, 27} and Koutsoupidou³ suggests student self-assessment is: *'a means by which they can judge and critique their own work and skills to improve and develop in certain domains'*.



Because self-assessment as a skill is frequently associated with life-long learning, reflection and evaluation, it is rarely attributed to the assessment of academic work.²⁵ Research indicates that students experience difficulties with self-assessment, generally overrating their grades,²⁴ although high achieving students have been found to under-estimate theirs, highlighting that students lack skills to self-assess.²⁶ Furthermore, Tan²³ argues that self-assessment may discipline rather than empower students if driven and controlled by educators.

Structuring of and preparation for assessed group presentations

Group sizes for assessing presentations typically range from three to six students,^{4,9,12,19} although Ballantine and McCourt-Larres¹⁶ contend group sizes should remain between three and four members because larger numbers may inhibit less forthright students from expressing an opinion and enable 'social loafing'. Opinion is further divided about how groups could or should be formed. Group self-selection may be attractive to students¹⁶ and such approaches have been adopted.¹⁹ However, this process does not facilitate group heterogeneity, with high ability students selecting to work together to achieve high grades,¹⁵ or diversity of perspectives.^{12, 16} Self-selection may result in students working with friends, sometimes leading to poor discipline.¹⁹ By contrast, groups formed by educators can lead to division of students by their personality profiles, ethnic or racial backgrounds, age, class, standing, gender or a combination of these parameters^{12,16} potentially resulting in a: *'more real world situation where people usually have little say in selecting who they work with.'*¹⁶ Clustering students by their academic abilities can result in group marks being awarded which reflect marks of other previously assessed work.¹⁹ However, criticism of this approach has been levied by Gibbs¹⁵ who argues low-ability students suffer

academically from being grouped together.

Introducing educator-determined student groupings

The innovative assessment discussed within this paper concerns a 20 credit modular second year undergraduate children's nursing unit of learning within a newly revised curriculum, delivered during five consecutive weeks for the first time in the summer of 2011. The unit's aim is for students to analyse and apply knowledge and understanding of quality of life and wellbeing to children or young people with a range of long-term or potentially life limiting or threatening illnesses and their families or during bereavement. The cohort studying the unit is small, comprising during the first year of delivery, 20 female students, each with varying degrees of prior clinical nursing experience.

A two part assessment strategy was chosen, a case study essay (beyond the remit of this paper) and group presentations to: (a) complement each other and provide diversity to suit a range of learning styles and abilities^{4,5,14} (b) complement the assessment strategies of other modular units within the second year of this education programme and (c) be suitably aligned with the ILOs for the unit.^{5,13} This format aspired to facilitate a high quality assessment through novel and dual assessment methods.

Nature of the assessment innovation

The literature review impacted upon the assessment strategy development for the group presentations, initially determining 'innovation' as problematic. 'Innovation' has been defined as: *'a new method, idea or product'*,²⁸ yet group presentations and varying assessment strategies have been described for a number of decades.^{4,18,20} With this definition in mind and with unprecedented amounts of innovative undergraduate assessment being implemented in

recent years,⁸ the sustainability of innovative assessment practices may be questionable. However, Bryan and Clegg¹⁰ argue that: *'Innovative assessments should enhance and enable self-regulated learning'*. Adopting this definition with emphasis on assessment for learning, enabled a strategy to be devised for assessing group presentations which may be deemed 'innovative'.

Following recommendations concerning structuring and preparation of group presentations^{4,9} and the organisational structure of the curriculum in which this modular unit sits, student presentations were planned for the last week of the programme of learning and were to be approximately 20 minutes long. Prepared presentation guidelines were discussed with students at the outset of the unit, providing four weeks preparation time. Topics for inclusion within the presentations were self-selected and wide ranging, befitting the nature of the unit studied.

To minimize 'social loafing' or 'free riding'^{16, 17, 19} group sizes were small with five groups each containing four students. Internal review of current organisational practises suggested that student groups are frequently self-selected, yet anecdotally, this had previously resulted in student dissatisfaction in a number of areas. To counteract these concerns and other known disadvantages, educator-determined rather than student-determined groups were constructed by academic ability. The groups were numbered from one to five with Group One containing the least academically able students and Groups Four and Five the most academically able.

Acknowledging concerns regarding 'fairness' to students in marks awarded and the importance to students of participating in peer-assessment^{14, 16} internal, organisational 'norms' in approaches to assessment of group presentations (which necessitate two educator-assessors), the benefits and disadvantages of both educator- and peer-

assessed group work and the particular contentions concerning self-assessment^{23,24,26} led to a peer-and educator-approach to this assessed group presentation work. Marking criteria were developed for use by both students and educators alike and marks awarded by both students and educators were amalgamated equally to provide one overall mark for each participating group.

Where the assessment process devised for this 'innovation' differs, however, from that identified in the literature review conducted is that peer assessment was undertaken *by* groups, rather than individuals, *on* groups. Through this approach, student groups reached a consensus in the mark awarded to other participating student groups. Marks awarded by all four assessing groups were then amalgamated by the educator to arrive at a peer grade for each of the five peer-assessed group presentations. These grades were then further equally amalgamated with a grade agreed between the two educators assessing the presentations, to arrive at an overall agreed group presentation peer and educator awarded group grade. The intentions of this approach were to collectively enhance the assessment skills of students; potentially reduce tensions students may have experienced in criticising their contemporaries and help them to take peer-assessment seriously,^{12,16} and develop 'deep' learning¹¹ and shared understanding of the ILOs associated with this assessed unit of learning.

As identified earlier, overriding concerns about peer-assessment of group presentations are 'free-riding' and difficulties identifying individual contributions. Anecdotally, this criticism had previously been raised by some of the most academically able participating undergraduates who are the focus of the assessment innovation discussed within this paper. Thus, following recommendations of Zaremba and Schultz,⁴ an additional innovation of this project concerned the compilation of student contracts which students were required to complete at the outset of the preparation and again on completion of



their presentations, detailing individual contributions.

Evaluation of the assessment innovation: the findings

Within the context of nurses' education evaluation is viewed positively as benefitting student growth and development.²⁹ Hence, it was integral to the unit delivery and on completion of the assessed group presentations. This was determined through informal group discussion of the 'novel' assessment processes throughout the five week unit, through completion of a structured questionnaire, as a quality assurance organisational requirement but modified for the evaluation study and further informal discussion with students on completion of the modular unit. The evaluation was underpinned with a philosophical 'lived experience' approach to evaluation,³⁰ which draws on individuals' experiences to inform programme improvement. It was also informed by the literature reviewed and by the grades awarded to participating student groups; accordingly two key themes were identified from the evaluation: (1) group formulation and student engagement and (2) grading.

Group formulation and student engagement

Generally, educator- rather than student-formulated grouping was regarded highly on a number of levels. Firstly, grouping by academic ability was seen as fair by all participating students although an unanticipated negative consequence was that students in Group One (the least academically able) perceived themselves to be marginalised by this process and sought the greatest level of reassurance from the educational lead (JH) in the preparation of their presentation. Unsurprisingly, the most academically able students (Groups Four and Five) expressed the greatest satisfaction with the educator-formulated groupings, by academic ability.

Secondly, removing self-selection apparently removed 'difficult' decisions from students and some seemingly 'difficult' cohort dynamics.

Thirdly, students valued the small group sizing and particularly welcomed the 'novelty' of student contracts. Implicit within their positive evaluations was the potential to reduce 'free-riding'¹⁶ through both the group sizing and the contracts. Despite this potential, a review of completed student contracts and their participation in the presentations did not facilitate clarity of individuals' contributions in the preparation of the presentations because a number of students subsequently and confidentially reported continued 'social loafing' by some participants in the preparatory work which was not apparent from the written contracts.

Fourthly, educator-formulation of the presentation groups was valued by a number of students as an experience from which much was learnt about the topics presented. It is not possible to determine from the evaluation whether the more or least academically able students derived the most learning benefit from the educator-determined groupings. However, this positive element of the evaluation endorses a number of identified advantages of group learning and may have particularly enhanced the learning experiences of students who fair less well through more conventional assessment methods.⁵

Grading

The intention of structuring groups by academic ability was to reduce mark 'clustering' around mid-grades, thereby providing opportunities for students to achieve marks reflective of previously assessed work.¹⁶ However, whilst the highest achieving students were clustered together (Groups 4 & 5, Table 1) and lowest achieving students were similarly clustered (Group 1, Table 1), a surprising finding from this evaluation was the limited range of grades awarded for the group

presentations. Whilst the more academically able students gained the highest grades and those less academically able the lowest (Table 1), the distribution of marks across the student cohort only differed by nine percent (range 61-70% (mean average 65.2%) see Table 1). This mark clustering differs significantly from other assessment grades for the cohort. For example, Table 2 depicts the range of marks awarded for an essay assessed earlier in the same academic year, with grades ranging from 25-78%, with 50% of students gaining 49% or less and 15% gaining over 70% (mean 52.95%).

Evaluation of the peer and educator assessment outlined herein, determined that students initially demonstrated anxieties about assessing their peers due to the novelty of the experience. However, with detailed discussion about the assessment processes throughout the five week unit and with specific marking criteria, anxieties dissipated. Participation in group (rather than individual) assessments, necessitating negotiation with group members of marks awarded to other participating student groups, also relieved anxieties. The equal amalgamation of their awarded marks with those awarded by the assessing educators further appeased anxieties about peer assessment. While it is possible that participation in group assessment contributed to the clustering effect, this needs to be weighed against the positive learning experiences of the students.

Conclusion

Assessment is crucial to determine and drive student learning.³⁻⁶ Yet criticism has been raised over the years of both conventional assessment methods and more novel approaches. These criticisms mean that difficulties arise for educators in determining high quality, sound assessment approaches to suit wide ranging student learning styles.^{4, 5, 14}

To this end, exploring 'innovative' ways to

assess students and improve feedback are paramount yet problematic. No one means of assessment will suit all students¹² and expert opinion and research suggests a range of assessment methods be implemented within undergraduate education. Group work and group presentations, in particular, are universally popular but are inherently difficult to assess; hence no one standard means of assessment of group presentations exists. Whilst educator-, peer- and self-assessed group presentations are not widely reported, such modes of assessment are not new within HE practices. Peer-assessment, in particular, has been adopted globally in universities across a diverse range of disciplines for a number of decades.¹⁸ Drawing on the reviewed literature and an evaluation of a second year undergraduate children's nursing modular unit, this paper has explored ways in which peer- and educator-assessment were adopted for the assessment of group presentations which may arguably be described as 'innovative'.

The ethos of group work, as described by Ballantine and McCourt-Larres,¹⁶ is advocated and its assessment through awarding a group rather than individual mark. Student criticisms of this approach are recognised but outweighed by the desire to enhance the learning opportunities afforded to them through group presentations. It is acknowledged that assessing group presentations presented significant challenges to this 'innovative' assessment.

It was anticipated that 'free-riding' and mark clustering^{16, 19} would at the very least be diminished and, aspirationally, be eradicated. However, through student evaluation and grading the presentations, these intentions were not realised and it is asserted that eradication of grade clustering of assessed group presentations may not be achievable. It was also hoped that students would derive particular benefits from the completion of student 'contracts' and through awarding marks to participating student groups, by groups, rather than individuals. These aims



were more positively achieved. However, despite the introduction of student contracts 'free-riding'¹⁶ remained evident but with improved scrutinising of student-compiled contracts for preparatory contributions rather than presentation contributions, it is contended that reduction and potential eradication of 'free-riding' may be achievable. Group, rather than individual grading was positively evaluated by participating students and it is concluded that this method of assessment enhances students' assessing skills.

Lejk et al.,¹⁹ suggested that clustering students by their academic abilities can result in group marks being awarded which reflect grades of previously assessed work. More recently, Gibbs¹⁵ has argued that clustering students by academic abilities is problematic because whilst it advantages academically stronger students it disadvantages weaker ones and mixed ability groups are recommended to enhance these students' capabilities. Grades awarded to student groups described in this paper reflected academic abilities because the most academically able students gained the highest grades whilst the least able the lowest. However, as depicted in Table 2, grades awarded for the group presentations did not generally reflect the wide ranging grades more usually awarded to this cohort of students. Although the least academically able students viewed themselves as marginalised, they recognised the value of students being grouped by academic abilities since these students generally gained higher grades compared with their other academic work; altruistically they also desired academically stronger students to gain higher grades for their work. These findings thus refute Gibb's¹⁵ recommendations for mixing the academic abilities of students participating in assessed group work. 'Deep' learning,¹ shared understanding of the subject studied within the described modular unit and other recognised long-term benefits of participating in group work^{4,9,12,16,17} are harder to determine.

Criticism has been levied at both 'conventional' and 'novel' approaches to assessment because of their time consuming nature, making them costly of academic staff time to administer.^{4,16} In exploring an innovative means by which to assess group presentations, analysis of the process undertaken within this project, leads us to conclude that preparation of quality assessment of group presentations which includes establishing groups and student allocation, preparing detailed guidelines, and organising learning contracts, is time consuming. However, although it was anticipated that additional educator time would be required to limit 'free riding' and 'group dysfunctionality',^{16, 19} a positive outcome suggested this not to be so. Educator-time invested in advance of student group presentations and additional time required to minimise 'group dysfunctionality' during the preparatory phase significantly reduced educator time in the post-presentation phase, since limited additional time beyond that spent assessing the presentations was required. Thus, it is argued this innovative assessment process was no more costly of educator time to manage compared with other approaches outlined in this paper..

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**ANNEX****Table 1.** Presentation group grades

<u>Group number</u>	<u>Grade (%)</u>
1	61
2	62
3	64
4	69
5	70

Table 2. Range of marks awarded for an essay earlier in the same academic year

<u>Grades awarded</u>	<u>No. of students receiving grade (N=20)</u>	<u>Percentage (%)</u>
Under 40 % (fail)	3	15%
40-49%	7	35%
50-59%	3	15%
60-69%	4	20%
70-79%	3	15%