An analysis of scores obtained by undergraduate nursing students using Poster Presentations as the assessment method

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Poster presentations...

• Represent a creative and stimulating assessment method in undergraduate nursing programs, with benefits for both students and instructors that move away from traditional methods such as case studies and examinations (Brown & Knight, 1994; Nurgroho, 2016).

• Integrate and apply information beyond the educational setting and into the practice domain can be realized with this type of assessment strategy (Handron, 1994).

• Fosters critical thinking, communication, creativity, analysis, and problem solving skills, and allows for different learning styles. (O’Neill, 2012).

• Engage students in a collaborative planning process that satisfies their need to know the how, what, and why of learning. (Utecht, 2008).
Assessment for learning NOT of learning

• Evidence based learning curriculum….however students felt ill prepared to embark on EBL

• Heath and Well-being module 20% poster presentation 80% examination

• The structure of the assignment encourages a self-directed approach so students take control of the goals and purposes of learning. The sequential organization of the assessment guides students in the transition from dependent to self-directed learners. These considerations are in keeping with adult learning principles (Knowles et al., 1998).
• It would seem then that much has been written about the benefits of using posters as an assessment method, yet there appears to be a lack of research that captures the student experience of actually coming together to develop and present the poster, both in terms of positive benefits of the collaboration and the negative.
My previous work

• Sought to evaluate and capture the student experience by using a triangulation approach:
  • Quantitative data
  • Qualitative data from group discussions
  • Further qualitative data from peer to peer interviews
Methodology

• All students from the February 2015 intake of undergraduate Bachelor of Nursing Degree program were eligible to take part (80 students) of which 71 participated (n=71). These students had just completed their year one modules assessments of which one was a poster presentation completed in their first 6 weeks of embarking on the course.
Quantitative data collection

The student’s evaluation was investigated by means of a questionnaire and comprised of a number of multiple choice questions using Likert Scales (ranging from “strongly agree” to “strongly disagree” and an “undecided” option, and a few yes/no answer questions. In order to facilitate larger groups, to ensure confidentiality, ease of collation of data and to keep the time needed to complete to a minimum the Personal Response System.
Developed my skills in time keeping

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

61% agreed
12% strongly agreed
7% disagreed
12% strongly disagreed
7% had no opinion
Developed my skills in presenting.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

The effect of an educational program for healthcare professional focused on QoL assessment in palliative care patients:

the INFO-QoL Educational Program

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NET Conference
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Helped me to form close bonds with members of my tutorial group

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

- Strongly agree: 47%
- Agree: 35%
- No opinion: 3%
- Disagree: 6%
- Strongly disagree: 9%
Developed my skills of “team working”

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

36%
57%
1%
6%
0%
Taught me about team dynamics

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

Votes:
- Strongly agree: 67%
- Agree: 28%
- No opinion: 4%
- Disagree: 0%
- Strongly disagree: 0%
Developed my skill of listening to others point of view

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree
Taught me about diplomacy in group tasks

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree
Developed my skills in collaborative working

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

73% Strongly agree
15% Agree
3% No opinion
8% Disagree
2% Strongly disagree
Developed my skills in dealing with “difficult situations”/challenges in team working

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree
Taught me about working with different personality types

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree
On reflection the process furnished me with additional skills and benefits above actually producing the poster

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree
I believe these “extra benefits” are important skills for nurses

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree
Overall on reflection, did you find it a useful learning experience

A. Yes
B. No
C. I have no opinion either way

76% Yes
13% No
10% I have no opinion either way
A Positive Experience

• worked well as a team
• getting to know your classmates
• getting to know what everyone strengths are
• generally the work appears to have been shared out evenly with one group commenting on group marks differentials reflecting in “which teams had worked well together”
Professional Development

- social skills, develop confidence and team working skills
- better develop people skills
- to compromise
- develop their skills in leadership, delegation, initiative
- coping with competing interests of academic/work pressures
- assertiveness were enhanced as a result of the exercise “how to speak up for yourself and other members of the team”
- improved ability to source out suitable information
- improved ability to reference
- Importantly, at the level of professional development, the student’s commented to the experience as helping to develop their understanding of teams, communication and personal confidence, “helped develop team working skills, organisational skills, communication and confidence”
Furnishing students with skills is valuable but of little use without accompanying team working abilities (Roberts et al. 2006). Employers and professional bodies (such as nursing) both rank the ability to communicate, cooperate, collaborate and compromise with others as crucial attributes for graduates seeking employment (Chapman et al. 2006; Liden et al. 2004). These all appeared to be substantially evaluated by the nursing students as significant skills that the early work in poster group presentation had helped them to develop.
This study also raised students concerns:

• The main being that marking was subjective and “it depended on who marked you” as to whether you got a high score or not, a common opinion held by students, the literature would suggest (Falchikov, 2013).

• Secondly, students revealed they believed that mature students would do better as they had more of the skills necessary for a good presentation from previous life experience,

• that females would find this an easier task than men

• and that branch students would get better scores than their general adult nurse colleagues.
Despite employing clear marking criteria (Tisi et al, 2013) support for new markers and a robust internal and external moderation of marks which is regarded as good practice (Bloxham, 2009) we were still faced with uncertain reliability and certainly a lack of faith in the robustness of the marking by students (Bell, 2013). An extensive search found no literature whatsoever that investigated the scores awarded from poster scores except for scant reporting of claims of reliability based on the spread of marks (Jackson, 2000, Huntley-Moore, 2005).
The aim of this paper therefore is to investigate marks awarded following poster presentations through statistical analysis of variables which could influence the reliability of scores as discussed.
Methodology

- The scores awarded to the September 2016 (n=362) cohort were used for this paper. Permission was sought and approved from Ethics and from the various markers involved. Anonymity was assured by assigning each student and marker with a number, the author is the only individual who would know identities and this information was kept securely. Scores were analyzed using various tests with SPSS:
1. There is no statistically significant difference between the scores obtained by students in various “branches” compared to other students.

2. There is no statistically significant relationship between the age of the student and the score obtained.

3. There is no statistically significant difference between the scores awarded by various markers.

4. There is no statistically significant relationship between experience of marker and the score awarded.

5. There is no statistically significant difference between the scores obtained by males and females.

- Ho 1: ANOVA
- Ho 2: Spearman
- Ho 3: ANOVA
- Ho 4: Pearson correlation
- Ho 5: Independent T-test t
Findings

- Findings revealed there was no statistical difference with Hypothesis 1, 2 and 5.
- Branch
- Age
- Gender
- However...

- 1. There is no statistically significant difference between the scores obtained by students in various “branches” compared to other students.
- 2. There is no statistically significant relationship between the age of the student and the score obtained.
- 5. There is no statistically significant difference between the scores obtained by males and females.
However...

• However, there was a difference between markers and this difference strongly correlated with experience of the marker (negatively) i.e. the least experienced markers gave significantly higher scores.

• 3. There is no statistically significant difference between the scores awarded by various markers.

• 4. There is no statistically significant relationship between experience of marker and the score awarded.
Conclusion

• Poster group presentations are a valuable form of teaching and learning. Perhaps significantly associated to student nurses as team working, problem solving and collaboration are such important qualities and skills in affective care management.

• That these skills should be practically developed as early as possible in student nurse training seems to fit comfortably with EBL and interactive teaching and learning methods.

• More work needs to be undertaken in relation to developing the students early skills in accessing and utilising research with more specific assessment guidelines at this stage in the nursing students education, and evidence from this evaluation suggests the importance from the student’s perspective that individual contribution to the group assessment should reflect at least to some extent in marking assessment.
Recommendations

• Recommendations included the need for robust marker training, clear marking criteria and if possible a two marker system.

• Dissemination of findings to students regarding the measures taken to ensure good inter-rater reliability to ensure confidence of the robustness of the marking process to promote student engagement and enhance the poster presentation experience.