An evaluation of ‘Peer Teaching’ of research in the undergraduate nursing curriculum

Final Report

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Acknowledgements

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Executive Summary

This study evaluated the use of peer teaching of research by honours students as a means of helping to increase the dissemination of clinical research, the perceived relevance of research and its understanding by students on the undergraduate nursing programme. It also explored the experience of, and the perceived benefits of students having presented their honours work to the undergraduate students. The undergraduate students who participated in the study were in the final of their nursing programme. The students presenting had either completed or were currently working towards completion of their honours programme.

Summary of the findings

- This study found that peer teaching of research is an effective educational intervention for teaching undergraduate nursing students.

- Survey results confirmed the perceived relevance of research and its understanding by students on the undergraduate nursing programme, and students’ learning and understanding of the research process had been reinforced.

- Peer teaching helped students to see the connection between research and practice and this finding resonated with the honours students’ intention of helping students to make that connection through the presentation of their own research.

- Teaching with peers had enhanced research presentation skills and increased self confidence in honours students ability to confidently disseminate information.
1. Terms of Reference

1.1 Commissioning

The study was supported by the University of Stirling, Enhancement of Learning Fund (2010) which was established to support developments in learning, teaching and assessment, in line with the University’s Learning and Teaching Quality Enhancement Strategy.

1.2 Honours programme

Students on the undergraduate BSc in Nursing and Midwifery programmes and the BSc in Professional Practice programme in the School of Nursing, Midwifery & Health can register for the honours programme on successful completion of Semester 4 to 6 of the Undergraduate programme, and/or on completion of the pre-requisite degree modules. They need to have successfully completed NUR191 (Empirical Studies 1) (level 10), a pre-requisite for the dissertation module - NUR207 (Research Project Design) (level 10). The aim of NUR191 is to enable the student to carry out under supervision an in-depth review of the literature on a research topic of their choice, linked to the School of Nursing, Midwifery & Health research programmes – with an overarching theme of 'improving the health and illness experience of patients and families'. Skills acquired when carrying out an in-depth literature review can be drawn upon for future academic and clinical practice developments. The topic selected by the student for NUR191 is taken forward into NUR207 (dissertation), when they critique two of the papers from their literature review, to demonstrate knowledge and understanding of the concepts of validity and reliability as well as ethical considerations in research. They also prepare a research proposal as part of NUR207. The aim is to enable the student to develop research skills and knowledge through the assessment process. The emphasis of assessment is on the demonstration of understanding by the student of the research process rather than the actual conduct and outcome of research. If, at a later date, when the student has completed their honours they can use the research proposals they developed as a basis for future study, or to apply for funding to conduct the research. It is the work completed for Honours that the student volunteers used as a basis for peer teaching of research to the undergraduate students.
1.3 Aims and outcomes of study

The main aim of the study was to evaluate the use of peer teaching of research by honours students as a means of helping increase the dissemination of clinical research, the perceived relevance of research and its understanding by students on the undergraduate nursing and midwifery programmes. A secondary aim was to explore the experience of, and the perceived benefits of students having presented their honours work to the undergraduate students and to our clinical partners.

The intended outcome for students on the undergraduate programme on receipt of peer teaching is that they would have a greater understanding of the research process and its relevance to clinical practice facilitated through discussion and lively debate with the honours students i.e. their peers. The intended outcomes for the honours students presenting their work included development of didactic skills and confidence, as a result of feedback on their performance from the student group and clinical partners, potentially enhancing their employability and capacity to succeed in their chosen careers.

1.4 Research questions:

1. Does ‘peer teaching’ of research by honours students help increase the dissemination of clinical research, the perceived relevance of research and its understanding by students on the undergraduate nursing and midwifery programmes?

2. What is the honours students experience and views about the benefits or otherwise, of having presented their work to students on the undergraduate nursing and midwifery programmes?

The first research question will address aim 1 of the study and the second research question will address aim 2. The study was guided theoretically by the understanding that research needs to be an integral part of nursing and midwifery education and evidence-based practice (Sackett et al 1996), and that teaching by peers can help increase the dissemination of clinical research, the perceived relevance of research and its understanding by students on the undergraduate programmes.
1.5 Background

Historically, for various reasons, there have been problems with poor utilisation of nursing research (Funk et al 1991, Carroll et al 1997) and also poor engagement of nurses in research once qualified (Snellgrove & James 2011). This gives some cause for concern, especially since the problem of poor utilisation of research has been repeatedly highlighted in the literature for over 20 years (Champion & Leach 1989, Lacey 1994, Rodgers 1994). Outcomes from studies continue to support ongoing claims of a gap between nursing research and clinical practice, and problems exist with perceived practice relevance and application (Hek & Shaw 2006, Funk et al 1991, McCormack 2006). The dissemination of nursing research and its application in practice remains slow (Parahoo 2006, Forsman et al 2010), and there is some evidence to suggest the proportion of low users of research increases as the time lapse extends beyond graduation (Forsman et al 2009). The low extent of reported research application poses particular challenges at a time when the delivery of evidence-based health care is emphasised. Nurse educators have a key role to play in preparing nurses and midwives to meet the challenges of clinical effectiveness and evidence based practice (Scottish Government 2010, Nursing and Midwifery Council 2008, Lindsay 2007, Freshwater & Bishop 2004, Newell & Burnard 2006).

Currently, our undergraduate nursing and midwifery students mostly learn about research in the classroom. It is taught in different semesters primarily by teachers, with some input from researchers. Previous module evaluation reports indicate the students find learning about research difficult, they don’t always see the relevance of research to clinical practice, and it tends to compare less favourably with other topics in the curriculum. The context of learning matters, and if change is to take place in clinical practice and the research-practice gap narrowed, educative practices need to be more innovative and participatory (Seymour et al 2003, Moulding et al 1999).

It is generally recognised that peer teaching is a valuable and effective approach for learning (Yuen Loke & Chow 2007, Topping 1996). Peer teaching or peer tutoring involves someone adopting the role of tutor whilst the other(s) involved embrace the role of tutee(s). The most widely adopted peer tutoring methods used in higher education include cross-year small group teaching, personalised system of instruction and supplemental instruction (Topping 1996). The advantages of using
peers as tutors is the opportunity for those involved to reinforce and expand their learning and to develop teaching skills (Evans & Cuffe 2009, Yuen Loke & Chow 2007). The advantages of peer tutoring for the tutee(s) include a more active and participatory style of learning, immediate feedback, swift prompting, lower anxiety associated with higher self-disclosure and greater student ownership of the learning (Topping 1996). The disadvantages are that peer teaching can be time consuming as it takes time to organise the matching of peers (tutors and tutees), there maybe a need for some changes to curriculum materials, the quality of tutoring which may be inferior to that of the teacher, and the content covered may be more variable (Topping 1996). Overall, it is considered that peer teaching has benefits for both tutors and tutee(s), and consequently, it has gained increasing support in higher education. The importance of evaluating the potential benefits of peer teaching in different programmes and its effects on volunteer tutors and ‘tutees’ is emphasised (Topping 1996, Evans & Cuffe 2009).

Peer teaching has been incorporated into medical, dental and science programmes and health care courses, using a variety of approaches and for different purposes (Evans & Cuffe 2009, Buckley & Zamora 2007, Stefani 1994). For example, Evans & Cuffe (2009) used peer teaching of anatomy to deeper learning on a science course. Alpay et al (2010) used peer assisted tutorials to help instil a culture of formative assessment in an engineering department. In nursing and midwifery programmes, peer teaching has been used mostly for learning in clinical education (Secomb 2008, Christiansen & Bell 2010), for peer assessment between students and staff (Topping 1998) and as an adjunct to regular lectures, laboratory and clinical placement (Yuen Loke & Chow 2007). Research findings from Yuen Loke & Chow (2007) indicate that ‘cooperative learning’ among nursing students through a peer-tutoring scheme helped with enhancement of learning skills, intellectual gains and personal growth. Negative experiences related to frustrations in dealing with mismatched learning styles between tutors and tutees, and the required time commitment.

No research studies were identified evaluating the use of peer teaching of research to undergraduate nursing and midwifery programmes or other in health care courses. Stanford & Shattell (2010) discuss the importance of an honours programme in engaging students in research, but they do not present research findings.
2. Methodology

2.1 Introduction

The main aim of the study was to evaluate the use of peer teaching of research by honours students as a means of helping increase the dissemination of clinical research, the perceived relevance of research and its understanding by students on the undergraduate nursing and midwifery programmes. A secondary aim was to explore the experience of, and the perceived benefits of students having presented their honours work to the undergraduate nursing and midwifery students and to our clinical partners.

2.2 Design

This study used a mixed methods design to answer the research aims and questions. Quantitative data on peer teaching of research was collected by questionnaire at the end of teaching sessions delivered by the honours students. Qualitative data on the honours students experience of having presented their work and their views about the benefits or otherwise of having done so were collected via a focus group interview. The methods to obtain data to meet the key aims and research questions, as presented in Table 1.

Table 1 Research Questions and methods of data collection

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Research method</th>
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<tbody>
<tr>
<td>1. Does peer teaching of research by honours students help increase the dissemination of clinical research, the perceived relevance of research and its understanding by students on the undergraduate nursing and midwifery programmes?</td>
<td>Questionnaire Survey with undergraduate students</td>
</tr>
<tr>
<td>2. What is the honours students experience and views about the benefits or otherwise of having presented their work to students on the undergraduate nursing and midwifery programmes?</td>
<td>Focus group interview with Honours students</td>
</tr>
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</table>
2.3 Sample and recruitment

A convenience sample of undergraduate students on the BSc in Nursing and Midwifery programmes in Stirling, Highland and Western Isles campuses were approached to be involved in the study. The three sites selected represented a geographical spread of nursing and midwifery students across the School of Nursing, Midwifery & Health. Similarly, a convenience sample of students who had recently completed the honours programme, or who were current honours students were recruited.

2.4 Measures

2.4.1 Quantitative measure

In the absence of an existing, pre-validated questionnaire for evaluation of peer teaching of research, a questionnaire was designed to answer research question 1 (Appendix 1). The questionnaire contained three sections similar to the layout used by Alpay et al (2010) who evaluated the use of small group peer assisted tutorials in the Faculty of Engineering, Imperial College London; our focus, however, was on research teaching and learning. Accordingly, our questionnaire consisted of three sections designed to collect quantitative and qualitative data on:

- Background information on the study participants, including gender, age, programme/branch and residential status (home, EU, overseas) (Section 1)

- The evaluation of peer teaching of research; the first part consisted of 18 statements on peer teaching, relating to 1) understanding, consolidation of learning and reassurance; 2) engagement; 3) relevance to practice and skills development. Each statement was scored on a 5-point Likert scale from 1 = strongly disagree to 5 = strongly agree (Section 2)

- The evaluation of peer teaching of research; the second part consisted of six open-ended questions, which provided the students with an opportunity to comment and provide further feedback in relation to: the most significant effects (personal, professional, social, emotional) of peer teaching on them; development of their research knowledge; and motivation for future study
(Section 3)

Cronbach alpha coefficient for section 2 of the questionnaire i.e. the 18 statements on peer teaching of research was .920.

2.4.2 Qualitative method

For the qualitative component, a focus group interview was conducted with the honours students who presented to the undergraduate students i.e. their peers. An interview guide was developed for this purpose (Appendix 2), containing eight questions on:

- The impact, if any, the experience of peer teaching had on the student presenting their honours work
- The perceived benefits of the presentation to student peer group
- The relationship between peer teaching and the honours programme

2.5 Procedure

2.5.1 Quantitative procedure

Data collection for the quantitative component of the study was obtained from a cohort of second year undergraduate nursing students in Stirling, Highland and Western Isles campuses (video-linked to Western Isles) following delivery of peer teaching (modified lectures) by the honours students. The exact content of the sessions were decided by the students themselves, but it had to relate in some way to the work they had undertaken as part of the honours programme i.e. the conduct of the literature review, critique of papers or development of a research proposal. The honours students were encouraged to talk about the research topics they had selected and rationale, and in doing so, to highlight the key stages in the research cycle and the challenges for them in terms of learning about research. Access to the undergraduate students who received the peer teaching was arranged via the semester 7 module co-ordinators on each campus. The students were advised about the purpose of the study and asked to consider their participation in it. The survey was administered to the undergraduate students at the end of the peer teaching
sessions. The students were advised the data would be held anonymously.

A letter was posted out inviting the honours students to present their work to the second year nursing and midwifery students (Appendix 3). An invitation to attend the presentations was extended to our clinical partners in NHS Forth Valley, NHS Highland and NHS Western Isles (Appendix 4).

2.5.2 Qualitative procedure

For the qualitative component of the study we aimed to conduct two focus groups with the students who presented their research to the undergraduate nursing students. However, only one focus group was completed, as the presentations were mainly delivered by the same honours students at the two events. Information about the study, including the focus group interview was posted out to potential recruits in advance and a consent form (Appendix 5 and 6). They were invited to consider their participation in the study (i.e. the presentation and focus group) and if agreeable to make this known to the researchers. The focus group discussions were audio-taped and transcribed with the participants’ consent.

2.6 Timetable

Table 2 Timetable of study

<table>
<thead>
<tr>
<th>Months 1 - 2</th>
<th>Develop questionnaire and interview guide</th>
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</thead>
<tbody>
<tr>
<td>Months 3</td>
<td>Quantitative and qualitative data collection</td>
</tr>
<tr>
<td>Months 4 - 6</td>
<td>Data collection continued, data analysis of survey and interview data</td>
</tr>
<tr>
<td>Months 7- 8</td>
<td>Data analysis continued, write up of report, presentation at EduFair 2011 conference</td>
</tr>
</tbody>
</table>
3.0 Analysis of data

3.1 Introduction

First, descriptive statistics were used to describe the characteristics of the sample (Section 1). Second, statistical analysis of the survey data i.e. the 18 statements on peer teaching of research was computed (Section 2) and third, interpretation of the open-ended questions was carried out (Section 3). Fourthly, qualitative analysis of the focus group data followed.

3.2 Statistical analysis

Descriptive statistics i.e. frequency distributions were used to describe the characteristics of the sample and the student responses to the 18 statements on peer teaching of research.

3.2.1 Quantitative analysis

The Chi-square statistics was used for comparison of peer teaching of research responses i.e. the 18 statements and gender, age, programme/branch and residential status. A total score was calculated for the 18 statements on peer teaching to allow for further statistical analysis. There was a minimum score of 18 and a maximum score of 90. The unpaired t-test was used to explore differences in peer teaching of research by gender. One-way ANOVA was used to identify differences in the total scores for peer teaching of research and age, programme/branch and residential status. All analysis was performed using PASW statistics version 18, \( P < 0.05 \) was taken to indicate statistical significance.

3.2.2 Quantitative data (open-ended questions)

For analysis of the six open-ended questions on the experience of receiving peer teaching on research, the student’s responses were copied verbatim. This allowed the cumulative responses to each of the questions to be presented clearly. In three of the questions, respondents were asked about the personal effect of peer teaching, the impact of peer teaching and comments on the experience of research. In the next two questions respondents were asked to detail any other comments that they had first on undertaking honours study and then on the whole experience of
participating in a peer led teaching session. Finally, in question 6 the students were asked for any final comments on the experience of receiving peer-teaching. The responses to the five broad open questions were reviewed question by question and codes or short phrases identified that captured the essence of what was being said. The emergent codes were refined and applied across questions as well as to each question. In turn these codes were developed into themes to be used to report meaning and findings. Where possible, a count of responses was identified.

3.2.3 Qualitative analysis (focus group)

A thematic analysis was used for the focus group interview. Generating themes is an interpretive process in which data are systematically searched for patterns that provide explanations of the phenomenon resulting in the development of meaningful themes (Tesch 1990). Analysis of the focus group involved familiarisation with the data to identify emerging patterns. Subsequently, descriptive themes and sub-themes were identified throughout the text and coded appropriately. Thematic codes were reviewed and a final set of themes were agreed with the research team.

3.3 Ethical considerations

The Chair of the Research and Ethics Committee, School of Nursing, Midwifery and Health was informed about the study. Confidentiality and anonymity was maintained throughout the study. For the survey, all data was anonymised. For the qualitative interviews, the quotes used in the report were not attributable to any individual participant. The transcriber employed on the project was required to observe confidentiality.

3.4 Data handling

We fully complied with the terms of the Data Protection Act 1998. All data was held on a secure, password protected University computer. The analysis took place on University of Stirling computers. Both the survey data and the qualitative data will be retained in a secure archive setting for 6 years to facilitate future analysis and publication of the study material.
4. Results

Two peer teaching sessions (modified lectures) were delivered to a total of 31 undergraduate students on the second year of the BSc in nursing programme by 5 honours students. The sessions lasted 45 – 75 minutes in length.

4.1 Characteristics of sample

The characteristics of the undergraduate students who attended the peer teaching of research sessions are presented in Table 3. There was a 100% response rate to the questionnaire (Sections 1 and 2).

Table 3 the undergraduate students

<table>
<thead>
<tr>
<th>Characteristics (n = 31)</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 – 21</td>
<td>9</td>
<td>29.0</td>
</tr>
<tr>
<td>22 - 32</td>
<td>6</td>
<td>19.4</td>
</tr>
<tr>
<td>33 - 42</td>
<td>11</td>
<td>35.5</td>
</tr>
<tr>
<td>43 or over</td>
<td>5</td>
<td>16.1</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>29</td>
<td>93.5</td>
</tr>
<tr>
<td>Male</td>
<td>2</td>
<td>6.5</td>
</tr>
<tr>
<td>Campus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stirling</td>
<td>9</td>
<td>29.0</td>
</tr>
<tr>
<td>Highland</td>
<td>12</td>
<td>38.7</td>
</tr>
<tr>
<td>Western Isles</td>
<td>10</td>
<td>32.3</td>
</tr>
<tr>
<td>Programme/branch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult</td>
<td>30</td>
<td>96.8</td>
</tr>
<tr>
<td>Mental health</td>
<td>1</td>
<td>3.2</td>
</tr>
<tr>
<td>Learning disability/midwifery</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Residential status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home (UK)</td>
<td>31</td>
<td>100.0</td>
</tr>
<tr>
<td>EU/overseas</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

4.2 Evaluation of peer teaching of research

4.2.1 Responses to peer teaching of research

The responses to the 18 statements on peer teaching of research are presented in Table 4 (Appendix 7). Analysis based on age and peer teaching of research showed no statistically significant differences for the individual statements. Likewise, no statistically significant differences in ratings were found for gender, programme
branch and residential status. The small sample size of male students should be noted here and that most of the students were home-based and from the adult branch programme (Table 3). A box plot showing the students’ responses to the 18 statements is presented in Figure 1 (Appendix 8).

There was a normal distribution of scores for peer teaching of research when the individual statements were totalled (69.81 mean, SD 8.35) (Figure 2, Appendix 9). There were no statistically significant results for peer teaching of research (total scores) by gender, indicating that on average male students perceived similar benefits from peer teaching of research, compared to female students (p = 0.295). There were no statistically significant results for peer teaching of research and age (p = 0.635), and campus (p = 0.782).

4.2.2 Responses to open-ended questions

A total of 25 (81%) students responded to the 6 open questions about peer teaching of research. The responses generated three main themes as presented in Figure 3 (Appendix 10). These were: learning and understanding; making connections; and accessibility of research. Each theme is presented here with a supporting extract.

Theme 1 Learning and understanding

In responses to all three questions learning and understanding were highlighted as a personal effect; and the impact of peer-teaching.

1. Peer-teaching was felt to improve learning and clarify understanding. This was highlighted specifically with reference to improved understanding of the research process and the stages involved. For example one respondent reported the following:

“It has opened my understanding and knowledge and increased my interest in research” and another stated that “I have a better understanding of research”.

Theme 2 Making connections

Making research appear more accessible, something that the students felt they could
do, and not just the domain of academics was a second theme that emerged across the first three questions.

1. Responses indicated they felt that research was something within their grasp and in turn that further study was a realistic goal.

“It proves that research is accessible to us as students”

Theme 3 Accessibility of research

The third common theme across two of the six questions was how peer-teaching seemed to help students to make connections.

1. Responses indicated that having a peer talk of research helped students to recognise more directly the connection between the importance of research and practice but also research and the delivery of nursing care. This is illustrated by the following comments

“It (research) shows it can be useful practice” and
“Made me more aware of why nursing research is important …”

Responses under this theme of connections also indicated that student could make a connection with the peer-teacher and their own situation as a student. This is linked back to idea of research being doable. Having the topic presented by a peer made research appear within their grasp.

The responses to questions four – six on peer teaching of research showed a wider range of responses. Question 4 asked about the impact of peer teaching on motivation or desire to undertake honours study. The nature of the responses here meant that a count of replies could be made. Eight respondents indicated that they remained undecided about whether they would undertake honours study or not. Interestingly, the same number stated they would not like to progress to honours. There was one respondent who indicated that peer teaching had impacted positively and that as a result they now wanted to undertake honours study.

In the final two questions the respondents were asked to detail any other comments that they had first on undertaking honours study and then on the whole experience of
participating in a peer lead teaching session. The responses to Question 5, which asked about comments on undertaking honours study, fell under two headings. First, despite earlier responses indicating that they felt peer-teaching made research seem do-able there still seemed to be students with feelings of self-doubt in their ability to undertake honours study. Second, was that there was a conflict between further study and the need to consolidate clinical practice. So they may want to undertake further study but their responses indicated that they felt that clinical practice was seen as more important and that they wanted to consolidate their clinical experience.

Finally, in question 6 students were asked for any final comments on the experience of receiving peer teaching. Thematic analysis here showed that the overall experience was positive. Respondents offered two areas on how to improve the approach. First was to introduce peer led teaching earlier in the curriculum and second to link peer teaching to research work that students have to undertake. In relation to this last point respondents gave the example of the research work book which is a piece of work that students must undertake in the last 3 months of year 2.

4.2.3 The experience of peer teaching

Results from the focus group reveal two main themes and a number of sub-themes relating to the honours student’s experience of having presented their work to the second year undergraduate nursing students. The two main themes were: the desired outcomes from peer teaching by the presenters; and the experience of presenting to student groups. Each theme is presented here with supporting extracts from the focus group discussion.

Theme 1 Desired outcomes from peer teaching by the presenters

Theme one provides insight into the motivating factors which encouraged the honours students to participate in the study. Four sub-themes emerged from the focus group that prompted agreement to present to student peers.

1. Stimulate interest of student peers in the research process.

Presenters were enthusiastic about their own projects and recognised the relevance of the areas they had chosen to study to their clinical practice. Through their
presentations, they were keen to point out to their peers that engagement with the research process was an achievable and desirable goal. One presenter commented,

“Hopefully we managed to point out that the research process isn’t a scary, daunting task”.

2. Demystify the research process.

A further aim identified by the presenters was a desire to demystify the research process for their peers. The presenters explored their own perceptions of research awareness and related how their increased engagement facilitated greater understanding of research and its significance for practice. One of the presenters related her own experience of research involvement and compared it to a theatrical production,

“It’s like seeing the magic curtain...ah, that’s what someone is like when they are on to the next step”

3. Stimulate interest of student peers in their subject areas.

Presenters had spent a significant period of time researching their own areas of interest for honours study and wanted to demonstrate their enhanced knowledge through their presentations. It is noteworthy that on different occasions during the presentations, the peer group sought contact details from the presenters, as well as information on cited book and journal resources.

4. Encourage self-belief of peers that studying at advanced level is achievable.

There was agreement with all the presenters that it was important to encourage self-belief in their peers and to re-enforce the view that they also had the ability to continue with honours study or to progress on to other post-graduate opportunities.

“It’s saying that ordinary people like us [honours students]...we’re doing it, in the act of doing it, we’re ordinary and we came through the same system, we’re not boffins...it’s encouraging...and seeing that it is possible to achieve it”
5. Empathy

Presenters suggested that students could identify more closely with their experience of research engagement rather than from academic staff in the university.

“So they can identify...with us and I think any situation ...where you can identify with somebody you can learn from it”

Theme 2 The experience of presenting to the student groups

Theme two describes the actual experience of presenting to the student groups. The sub-themes identified indicate how involvement in this study helped to further promote personal confidence and also re-enforced the value of honours study. There was unanimous agreement that the experience of peer presentation had been a positive experience both in terms of personal learning and professional engagement.

1. Re-emphasised extent of personal learning as an outcome of honours study participation.

The experience of presenting had encouraged the students to reflect on their progression through the honours programme and had reaffirmed their learning trajectory in relation to both research knowledge and their area of study. It was interesting to note that student’s reflected on their familiarity with the research process and described their honours transition from research novices to practitioners who were comfortable and confident with knowledge acquired,

“It’s the language, the research...drawing up your research proposal was massive, you know I am never going to be able to speak like that, to understand what it means...seven months later you have actually done it”

2. Encouraged self-evaluation and personal reflection.

Honours students reviewed their presentation performance and evaluated the learning that had taken place,
“If I was going to do this again, it would be...I liked this bit, I didn’t like that, that didn’t work so well...it’s really a learning curve”.

3. Increased self confidence and promoted sense of achievement

Although the presenters had indicated a degree of trepidation about presenting their own work to peers, they had been encouraged by the positive responses to their work. They stated that the encouraging feedback had underpinned confidence in the research learning they had completed and their ability to present their work to a receptive audience,

“Having taken part in peer teaching I’d be much more confident to be able to go out and teach my colleagues”.

Furthermore, presenters spoke about the sense of achievement experienced supporting peer learning,

“...and you also think, well I’m imparting something to them and it might spark some interest, so you know, that is a sense of achievement”.

4. Reinforced premise that nurses have a unique body of knowledge that makes an important research contribution

When the group reflected on their preparations for peer teaching and the possible value of their work, the importance of nurse led research was reinforced for them. The belief that nursing research makes a unique contribution to clinical knowledge was reinforced, as was their potential for informing that knowledge.

5. Experience of mutual learning

There was a clear indication that students enjoyed the experience of jointly presenting their honours work and working with each other to stimulate the interest of the undergraduate students. Additionally, they had learnt from each others’ presentations,

“.....and if we learnt from each other, why they would have not learnt from each of us?”
5. Discussion

The aims of the study were 1) to evaluate the use of peer teaching of research by honours students as a means of helping increase the dissemination of clinical research, the perceived relevance of research and its understanding by students on the undergraduate nursing and midwifery programmes; 2) to explore the experience of, and the perceived benefits of students having presented their honours work to the undergraduate students and to our clinical partners. Results suggest that peer teaching was perceived as a useful strategy for disseminating examples of clinical research to undergraduate nursing students. Although the honours students indicated they had either informed clinical colleagues about their research, or had expressed the intention of doing so, evidence of wider dissemination could not be fully substantiated within the scope of this study. Although clinical partners from NHS Forth Valley had been invited to participate in the study they were not able to attend due to extreme bad weather and staff shortages in December 2010. This session was cancelled for the undergraduate students in Stirling campus for the same reason and re-scheduled for April 2011. Similarly, clinical colleagues from NHS Highland and NHS Western Isles had been invited to join the presentations on Highland campus (video-linked to Western Isles) in December 2010, but had to cancel due to unforeseen circumstances.

Survey results confirmed the perceived relevance of research and its understanding by students on the undergraduate nursing programme, and students' learning and understanding of the research process had been reinforced. Importantly, peer teaching helped students to see the connection between research and practice and this finding resonated with the honours students' intention of helping students to make that connection through the presentation of their own research. These findings concur with the anecdotal reports of Stanford & Shattell (2010) who discuss the importance of an honours programme in engaging undergraduate students in research. Our findings are consistent with Yuen Loke & Chow (2007) and Topping (1996) who found that peer teaching as a method of teaching and learning has benefits for both tutors and tutee(s).

Although there was some initial trepidation about presenting to their peers the honours students reported positively on their experience of peer teaching. There was
agreement that the presentations built on the honours experience, had enhanced overall learning and reinforced for them the value of research. Importantly, teaching with peers had enhanced research presentation skills and increased self confidence in their ability to confidently disseminate information. The honours students had hoped that by acting as role models, their presentations would portray a realistic and achievable pathway for students to think about, and they were keen to motivate them to consider the possibilities of further study.

5.1 Implications

Further exploration is needed into peer teaching of research as a teaching and learning strategy, in particular, from the perspectives of undergraduate students. From the student survey, the evidence to support the impact of peer teaching on student decision making to undertake honours was not altogether clear; the longer term impact on decision making would need to be established.

5.2 Limitations

Our study is limited by the inclusion of UK only undergraduate nursing students, mostly female and from the adult branch programme. In the absence of a pre-existing questionnaire we used a non-standard measure of peer teaching of research. The cronbach alpha for this i.e. the 18 statements on peer teaching of research (section 2 of the questionnaire) was .920, indicating high degree of reliability (Field 2005). The students also had the opportunity to expand on their responses in section 3. Future research should test the psychometric properties of the instrument (section 2). Analysis based on age and peer teaching of research showed no statistically significant differences for each of the statements. A larger sample size would have allowed any statistically significant differences for peer teaching by research between the undergraduate students to be revealed. Notwithstanding these factors, this is the first known study to evaluate the use of peer teaching of research with undergraduate nursing students. Our qualitative findings highlight a number of key areas pertaining to the perceived benefits of peer teaching by the honours students. Taken together, our qualitative and qualitative findings highlight the importance of peer teaching of research in encouraging the
students’ active involvement in their own learning, and also sharing of their learning with others.

6.0 Conclusions

This study found that peer teaching of research is an effective educational intervention for undergraduate nursing students. It helped them to understand more about the research process and the relevance of research to their clinical practice. It helped the students presenting their honours work to gain confidence and reinforcement of positive attitudes towards research. Further undergraduate nursing and midwifery programmes should examine the effects of peer teaching of research.
7.0 References


Tesch R (1990) *Qualitative Research: Analysis Types and Software Tools*. Routledge Falmer,


Appendices

Appendix 1

Peer teaching of research questionnaire

We would like your views on the use of Honours students to help with the teaching of research on the undergraduate nursing & midwifery programmes, so could you please complete the questionnaire below. The survey will not take long to complete.

All responses will be kept strictly confidential and will only be used for the purposes of statistical analysis in relation to evaluating the use of 'peer teaching' as a teaching & learning strategy.

Section 1 - Background information
(Please circle the appropriate item for each question)

<table>
<thead>
<tr>
<th>1. Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Age (in years)</td>
<td>17 - 21</td>
<td>22 - 32</td>
</tr>
<tr>
<td>3. Programme/branch</td>
<td>Midwifery</td>
<td>Adult</td>
</tr>
<tr>
<td>4. Residential status</td>
<td>Home (UK)</td>
<td>EU</td>
</tr>
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</table>

Section 2 – Evaluation of peer teaching of research
(Please circle the appropriate number for each question)

<table>
<thead>
<tr>
<th>1. Helped to consolidate learning with topics covered</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree or disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Improved my understanding of topics covered</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Improved my knowledge of the research process</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Helped me recognise gaps in my own learning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tr>
<tr>
<td>5.</td>
<td>Helped me to understand the relevance of research to my practice as a student nurse</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6.</td>
<td>Made the research process interesting</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7.</td>
<td>Made it easy for me to talk about things I don't understand</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8.</td>
<td>Useful means of explaining a difficult concept to me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9.</td>
<td>Helped me to identify common misunderstandings about research</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10.</td>
<td>Helped make research more relevant to my practice as a student nurse</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11.</td>
<td>Gave me reassurance about my learning progress</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12.</td>
<td>Clarified why the material/content will be useful later on</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13.</td>
<td>Had a positive impact on my attitude towards research</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14.</td>
<td>Demonstrated a better understanding than tutors of problems encountered by students when learning about research</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15.</td>
<td>Explored related topics not covered directly by the course</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16.</td>
<td>Motivated me to want to do well on the course/programme</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17.</td>
<td>Overall peer teaching has helped me to learn about research</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18.</td>
<td>Overall I found peer teaching of research useful</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Section 3 – Open ended questions (please comment, and continue over if required)

1. What have been the most significant effects (personal, professional, social, emotional) of peer teaching of research for you?

2. How would you say that research teaching by peers has developed your research knowledge in the undergraduate nursing & midwifery programme?

3. Do you have any other comments about your experience of peer teaching?

4. Has peer teaching of research motivated you to enquire about the possibility of pursuing honours yourself?

5. Do you have any comments about undertaking honours level study?

6. Are there any other comments you would like to make?

Thank you for taking the time to complete this questionnaire
Appendix 2

Focus group interview schedule

Title of project
An evaluation of the use of ‘peer teaching’ as a teaching & learning strategy in the undergraduate nursing curriculum

Introductions and explanation of how focus group will be conducted

Questions

1) What, if any, impact has peer teaching had on you?
2) Describe how you felt about presenting your Honours work to your peers?
3) Do you think that the experience of peer teaching will affect your personal and professional development and, if so, how?
4) Are there any specific skills that you think you have gained through your involvement in peer teaching and, if so, which ones?
5) Do you think peer teaching can contribute to students’ understanding and/or appreciation of research and, if so, how?
6) Can you describe how the experience of peer teaching has contributed to the overall experience of undertaking an Honours course of study?
7) Thinking back to your time on the Honours programme what would you say were your major areas of development?
8) Do you have any other comments about your experience of peer teaching and/or the Honours course of study?
Appendix 3

Invitation letter to honours students

Dear

INVITATION TO PRESENT YOUR HONOURS WORK TO SEMESTER 7 STUDENTS

We would like to invite you to take part in a small teaching and learning project. This would involve you undertaking a short presentation to the Semester 7 diploma students (2008 intake) in Highland campus based on the work you did as part of the honours programme, or have been subsequently working on. The presentation will last for 10-15 minutes, with 5 minutes for questions. It can be as formal or informal as you like.

We have been funded by the Stirling Enhancement of Learning Fund (SELF) 2010 to undertake this project. We would very much appreciate your participation in it, if at all possible. The aims of the project are: 1) to evaluate the use of ‘peer teaching’ as a means of helping disseminate clinical research and increase the perceived relevance of research for UG students; 2) to explore the honours student’s experience of having presented their work to the Diploma students and clinical partners (only a few, mostly PEFS).

A questionnaire will be developed to obtain structured feedback from the Diploma students on the benefits of ‘peer teaching’ of research. We then plan to conduct a focus group interview with the honours students that presented to explore how they found the experience, the type of skills gained from this and from the honours programme generally.

If the use of ‘peer teaching’ of research evaluates positively, from the perspectives of the
presenters and the wider student group, we would hope to use this in subsequent years.

If you could please let me know if you would be willing to be involved in the presentations and group discussion and what the focus and title of your presentation would be. Unfortunately, we cannot pay you for doing the presentation but we can give you a £25.00 book token and pay for your travel expenses and lunch.

The presentations on Highland campus are scheduled for Tuesday 14th December 2010, 9 – 12.00md in the main lecture theatre (you only need attend for your own session). The focus group interview is on the same day, starting at 13.15pm (room TBC). Annetta Smith will conduct the group interview.

Please don’t hesitate to contact me if you need any additional information at this time. We look forward to hearing from you.

Yours sincerely

Dr Patricia Thomson
Lecturer
Department of Nursing and Midwifery
Stirling Campus

patricia.thomson@stir.ac.uk
Tel 01786 466396

On behalf of project team - Annetta Smith, Sarah Annesley, Patricia Thomson
Appendix 4

Invitation letter to clinical partners

Date

Address

Dear,

INVITATION TO ATTEND PRESENTATION HONOURS STUDENTS WORK

Tuesday 7th December 2010, 9 – 12.00md (Stirling Campus)

We would like to invite you to some short presentations being undertaken by our honours students, as part in a small teaching and learning project. I briefly mentioned this when we met at a meeting in the Department of Nursing & Midwifery in October 2010.

We have been funded by the Stirling Enhancement of Learning Fund (SELF) 2010 to undertake this project. The aims are: 1) to evaluate the use of ‘peer teaching’ as a means of helping disseminate clinical research and increase the perceived relevance of research for UG students; 2) to explore the honours student’s experience of having presented their work to the Diploma students and clinical partners.

This will involve some of our Honours students (current and past) doing short presentations to the Semester 7 diploma students (2008 intake) based on the work they completed as part of the honours programme, focusing on their literature review, critique of papers or research proposal.

The presentations in Stirling campus are scheduled for Tuesday 7th December 2010, 9-12.00md in the Logie lecture theatre. Each presentation will last 10-15 minutes (with 5 minutes for questions).
A questionnaire has been developed to obtain structured feedback from the Diploma students on the benefits of ‘peer teaching’ of research. We would also welcome feedback from you as one of our clinical partners.

We plan to conduct a focus group interview with the honours students following the presentations to explore how they found the experience, the type of skills gained from this and from the honours programme generally.

If the use of ‘peer teaching’ of research evaluates positively, from the perspectives of the presenters and the wider student group, we hope to use this in subsequent years.

We would very much appreciate your attendance at the presentations, if at all possible.

If, following the presentations, you would like to suggest some clinical topics for future honours students to investigate then we would be delighted to have your suggestions.

If you could please let me know by Tuesday 23rd November 2010 if you will be able to attend the presentations. Please don’t hesitate to contact me if you need any additional information at this time. We look forward to hearing from you.

Yours sincerely

Dr Patricia Thomson
Lecturer
Department of Nursing and Midwifery
Stirling Campus
patricia.thomson@stir.ac.uk
Tel 01786 466396

On behalf of project team - Annetta Smith, Sarah Annesley, Patricia Thomson
Appendix 5

Information sheet about the study

An evaluation of the use of 'peer teaching' as a teaching & learning strategy in the undergraduate nursing curriculum

You have been invited to take part in an education project that is investigating the use of 'peer teaching' as a strategy to help increase the dissemination of clinical research and perceived relevance of research to students.

Thank you for agreeing to become involved. Further to the letter you received previously inviting you to take part in the project, we now enclose an additional project information sheet and consent form. It is important that you understand the purpose of the project and what you are required to do.

Please take time to read the following information carefully. Feel free to discuss the project with your peers or colleagues.

Why is the educational project being done?

The aims of the project are: 1) to evaluate the use of 'peer teaching' by honours students as a means of helping disseminate clinical research and increase the perceived relevance of research for students on the undergraduate nursing & midwifery programme; 2) to explore the honours students experience of having presented their work to the current undergraduate students and to our clinical partners (mostly PEFS).

Through feedback, dissemination and discussion of the results we hope that this will contribute to improved teaching and learning of research in the undergraduate programme.

How is the project being done?

A questionnaire has been developed to obtain feedback from the class to find out what was learned from the presentations, the benefits of 'peer teaching' in terms of helping the students understanding of research, helping them feel as though they could discuss research difficulties, whether it was made more interesting, and helping clarify why the research presented might be useful later on for them. We intend to interview (focus groups) the students that presented their Honours work to get feedback on their experience, the type of skills gained, attitudes towards
research and relevance to practice development. You are being asked to participate in the focus group discussion, as well as presenting your Honours work.

Why have I been chosen?

You have been identified as a current or former student on the honours programme. We want to interview people who have experience in this area. If ‘peer teaching’ of research evaluates positively from the perspectives of the presenters and the wider student group we hope to continue the presentations in subsequent years. We hope to conduct two focus group interviews, one in Stirling campus and one in Highland campus, Inverness. This will involve 6 – 8 honours students in total between the two sites.

Who is running the study?

The project is being funded by the Stirling Enhancement of Learning Fund (SELF) 2010, University of Stirling. It is being conducted by Patricia Thomson, Annetta Smith and Sarah Annesley, with links to Ginny Saich in the Centre for Academic Practice & Learning, University of Stirling.

Do I have to take part?

No, you do not have to take part, but we are pleased that you have agreed to do so. You will have had time now to think over whether you want to take part or not. We hope that you will enjoy the experience. If you need any additional information my contact details are at the bottom of this information sheet.

What will happen next?

As we discussed, the presentations and focus group discussions will take place on Stirling campus on Tuesday 7th December 2010 and on Highland campus on Tuesday 14th December 2010, starting at 9am.

Can I change my mind?

Yes. If you agree to take part in this project and then change your mind, then you are able to withdraw at any time without giving a reason. There is no sanction if you withdraw.

What will taking part mean for me?

Taking part will mean that you agree to present some of your Honours work to the Semester 7 students and attend a focus group with Sarah Annesley (Stirling campus) or Annetta Smith (Highland campus). This interview will be digitally recorded and explore a number of themes, including how you found the experience, the type of skills gained for this and from the honours programme generally. The focus group will last for approximately 1 hour. Following the interview, the tape will be sent for transcription. We hope to come back to you some time in Jan 2011 for member checking of the content.
Are there any risks involved in taking part?

It is very unlikely that you will come to any harm as a result of taking part in this project. Participation may make you feel a bit uncomfortable or nervous and there may be some inconvenience by imposing on your time and good faith.

Will I benefit from taking part?

I cannot promise that taking part in this educational project will be of any direct benefit to you. However, by agreeing to be involved you will have an opportunity to present and share your work with others. This may provide a useful opportunity to reflect on your experience which might provide some sense of satisfaction in your achievements. In addition participation provides a chance to highlight good practice and the potential to inform future teaching in the department.

Will my taking part be kept confidential?

Any information that is collected in the focus group(s) about your experience will be kept confidential. Your personal details will be removed and pseudonyms will be used to identify you and your location to protect your identity. However, given the nature of the participants it might be possible to deduce locations and likely participants. Every effort will be made to ensure that confidentiality and anonymity is preserved and only the immediate project team will have access to precise details of locations and participant. Most information will be held securely for a period of 5 years following the end of the study. Digital recordings of interviews will be destroyed as soon as the project is complete.

What will happen to the results of the project?

The results of this project will be reported back to the University of Stirling in the form of a written report. In addition the findings will be presented at the university’s EduFair in May 2011 and possibly at other conferences and submitted also for publication in academic journals. We will prepare a summary of the findings which will be sent to participants. Please tell us if you do not want to receive the summary.

If you would like more information about the project please contact: Patricia Thomson, Dept of Nursing & Midwifery, University of Stirling, FK9 4LA. Phone: 01786 466396 (P Thomson) or email: patricia.thomson@stir.ac.uk

If you would like some independent advice about this project, please contact: Dr Ashley Shepherd, Lecturer Dept of Nursing & Midwifery, University of Stirling, FK9 4LA. Phone: 01786 466334; email: ashley.shepherd@stir.ac.uk

Thank you for taking the time to read this information sheet.

If you could please sign the consent form and bring it with you on Tuesday 14th Dec 2010. Many thanks Pat
Appendix 6

Consent form

An evaluation of the use of ‘peer teaching’ as a teaching & learning strategy in the under-graduate nursing curriculum

**Participant Consent Form**

<table>
<thead>
<tr>
<th>Researcher: Patricia Thomson</th>
<th>Address: Dept. of Nursing and Midwifery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tel: 01786 466396</td>
<td>Stirling, University of Stirling</td>
</tr>
<tr>
<td>Email: <a href="mailto:patricia.thomson@stir.ac.uk">patricia.thomson@stir.ac.uk</a></td>
<td>Stirling, FK9 4LA</td>
</tr>
</tbody>
</table>

Please read the 6 statements below, ticking each box and signing at the bottom if you agree:

<table>
<thead>
<tr>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I confirm that I have read and understand the SELT project information sheet and I have had an opportunity to ask the investigators any questions.</td>
</tr>
<tr>
<td>2. I understand that my participation is voluntary, that I am free to withdraw at any time without giving any reason and that there will be no detriment to me for doing so.</td>
</tr>
<tr>
<td>3. I understand that I will take part in a face-to-face, recorded focus group interview as well as presenting my Honours work to third year student nurses &amp; midwives.</td>
</tr>
<tr>
<td>4. I understand that any information that I give will be treated in the strictest confidence and every effort will be made to preserve my identity. This information will be kept securely, will only be available to the project team and destroyed after 5 years from the end of the study.</td>
</tr>
<tr>
<td>5. I give permission for the information I provide to be used for research purposes (including report writing, publications and presentation) with strict preservation of my anonymity.</td>
</tr>
<tr>
<td>6. I agree to take part in the above study</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants Name</th>
<th>Date:</th>
<th>Signature</th>
</tr>
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<tbody>
<tr>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Date:</th>
<th>Signature</th>
</tr>
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<tbody>
<tr>
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</tbody>
</table>

1 copy for participant; 1 for researcher
# Appendix 7  Table 4 Peer teaching of research

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Helped to consolidate learning with topics covered</td>
<td>0</td>
<td>0</td>
<td>9.7</td>
<td>74.2</td>
<td>16.1</td>
</tr>
<tr>
<td>2. Improved my understanding of topics covered</td>
<td>0</td>
<td>0</td>
<td>9.7</td>
<td>77.4</td>
<td>12.9</td>
</tr>
<tr>
<td>3. Improved my knowledge of the research process</td>
<td>0</td>
<td>6.5</td>
<td>0</td>
<td>71.0</td>
<td>22.6</td>
</tr>
<tr>
<td>4. Helped me recognise gaps in my own learning</td>
<td>0</td>
<td>6.5</td>
<td>9.7</td>
<td>58.1</td>
<td>25.8</td>
</tr>
<tr>
<td>5. Helped me to understand relevance of research to my practice as a student nurse</td>
<td>0</td>
<td>0</td>
<td>6.5</td>
<td>64.5</td>
<td>29.0</td>
</tr>
<tr>
<td>6. Made the research process interesting</td>
<td>3.2</td>
<td>9.7</td>
<td>22.6</td>
<td>45.2</td>
<td>19.4</td>
</tr>
<tr>
<td>7. Made it easy for me to talk about things I don’t understand</td>
<td>0</td>
<td>6.5</td>
<td>61.3</td>
<td>25.8</td>
<td>6.5</td>
</tr>
<tr>
<td>8. Useful means of explaining a difficult concept to me</td>
<td>0</td>
<td>0</td>
<td>22.6</td>
<td>61.3</td>
<td>16.1</td>
</tr>
<tr>
<td>9. Helped me to identify common misunderstandings about research</td>
<td>0</td>
<td>9.7</td>
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<tr>
<td>10. Helped make research more relevant to my practice as a student nurse</td>
<td>0</td>
<td>0</td>
<td>12.9</td>
<td>67.7</td>
<td>19.4</td>
</tr>
<tr>
<td>11. Gave me reassurance about my learning progress</td>
<td>0</td>
<td>3.2</td>
<td>22.6</td>
<td>67.7</td>
<td>6.5</td>
</tr>
<tr>
<td>12. Clarified why the material /content will be useful later on</td>
<td>0</td>
<td>0</td>
<td>16.1</td>
<td>61.3</td>
<td>22.6</td>
</tr>
<tr>
<td>13. Had a positive impact on my attitude towards research</td>
<td>3.3</td>
<td>6.5</td>
<td>19.4</td>
<td>54.8</td>
<td>16.1</td>
</tr>
<tr>
<td>14. Demonstrated a better understanding than tutors of problems encountered by students when learning about research</td>
<td>0</td>
<td>6.5</td>
<td>22.6</td>
<td>58.1</td>
<td>12.9</td>
</tr>
<tr>
<td>15. Explored related topics not covered directly by the course</td>
<td>0</td>
<td>6.5</td>
<td>29.0</td>
<td>51.6</td>
<td>12.9</td>
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<tr>
<td>16. Motivated me to want to do well on the course</td>
<td>0</td>
<td>0</td>
<td>22.6</td>
<td>54.8</td>
<td>22.6</td>
</tr>
<tr>
<td>17. Overall peer teaching has helped me to learn about research</td>
<td>0</td>
<td>3.2</td>
<td>19.4</td>
<td>67.7</td>
<td>9.7</td>
</tr>
<tr>
<td>18. Overall I found peer teaching of research useful</td>
<td>0</td>
<td>3.2</td>
<td>9.7</td>
<td>71.0</td>
<td>16.1</td>
</tr>
</tbody>
</table>
Appendix 8

Figure 2 Box-plots of student responses for peer teaching of research
Appendix 9

Figure 2 Total scores for peer teaching of research
Appendix 10 Figure 3  Responses to open-ended questions on peer teaching of research

Results from Student Questionnaire - open ended questions.