

# Role of class size on student learning and staff satisfaction: a mixed method study

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## Overview

The pre-registration adult nursing curriculum at Bournemouth University was originally configured for students to have 'mass lectures' in groups of 150 where information giving was the prime focus followed up by seminar groups, which designed to be discursive and interactive. The numbers of students in the seminar groups have become progressively greater over the years reaching an average class size of 40. There was concern among the lecturing staff around the impact of this change on student learning and staff satisfaction and hence a formal evaluation was designed to run alongside the implementation of this change.

## Aim

To investigate the role of class size on student learning and staff satisfaction during the first year of a pre-registration adult field nursing programme

## Objectives

To examine:

1. Staff perceptions on how class size influences learning and teaching
2. Student experience of class size

## Background

The purpose of this study was to examine student learning and staff experiences upon larger class sizes (average group size was 35-40). Internationally increased care demands and a rapid rise in demand for hospital nurses following the Francis Report has led to a shortage of registered nurses (NHS Improvement 2016). In the UK and elsewhere this has resulted in added demand for nursing student places at universities. Whilst there is an abundance of literature which explores different aspects of higher education teaching (Moffett et al. 2014), including teaching styles (Shin & Kim 2013; Foley & Masingila 2014) and the challenges and opportunities these bring (Mulryan-Kyne 2010), including emotional aspects of teaching large groups (Hogan & Kwiatkowski 1998, HEA 2015), there is a dearth of literature which examines the role of class size on student learning and staff satisfaction.

## Methods

A cooperative inquiry approach, using a mixed method study design was used to 'research with' rather than 'research on' people (Heron and Reason 2001). A mixed method study design was used to place the research problem at the core of the design (Hesse-Biber 2014) and ensure that the research question dictated the method (Newman and Benz, 1998).

## Sample

Study participants included pre-registration adult field nursing students (n=211) and lecturing staff (n=35) involved in the first year of a full-time three year BSc (Hons) programme in 2015-2016.

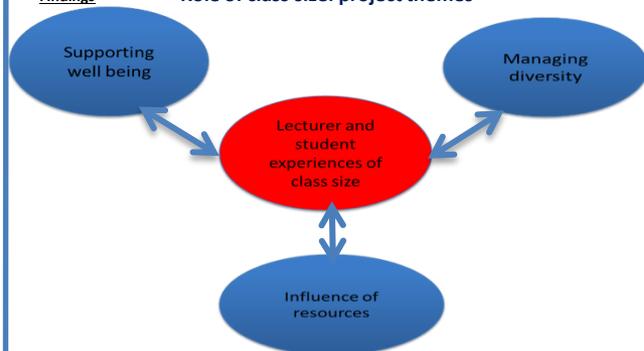
The collection was carried out in three stages, using five data collection methods (see Table 1). University ethical approval was secured.

Table 1: Data collection methods

Stage	Time point	Data collection methods
1	Pre-student arrival (Sept 2015)	Staff survey 1
2	Mid-year (Feb 2016)	Staff survey 2 Student end of unit evaluations (1)
3	End of academic year (June/July 2016)	Staff survey 3 Student end of unit evaluations (2) Key stakeholder semi-structured interviews Modified Nominal Group Technique

## Findings

## Role of class size: project themes



Most students were very satisfied with their programme, perhaps because as first years they had no experience of nurse education in smaller groups. However a small number were not and the biggest source of dissatisfaction was the nurse lecturer group.

### Supporting well being

Overall staff wellbeing is affected in terms of self-reported effects physical and mental health and the difficulty in managing learning for a larger group with multiple needs. These difficulties are recognised by students in terms of a frustrating and invisible experience, which potentially can affect psychological safety, access to support and levels of stress.

### Managing diversity

Majority of staff reported a larger group were more difficult to control, problems identifying weaker students, students with specific learning differences ability to keep up, more problematic building relationships with students and gauging if students understood the lesson. However, staff used different strategies to get students to participate and interact, as well as an increased in face to face tutorials and assignment work load. Both staff and students found that larger groups brought more diversity of viewpoints. Students felt that groups were too big to speak and contribute. Nevertheless, more opportunities for peer learning, support, discussion and debate, plus group activities were chances to focus and go over material.

### Influence of resources

Both staff and students spoke about the unsuitability of class rooms which were too small. Staff raised that there was no identified time to change teaching to accommodate increased group size; students raised repetition of topics and methods, too much group work and non-participation of some students in groups. Interestingly students viewed teacher led activities more valuable than student directed. Staff noted lack of appropriate technology with students commenting upon lack of internet access in some class rooms. Staff also raised the pressures of marking workload with larger group size.

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## Discussion

The standards for nurse education in the UK are set by the NMC (2010). The standards promote increasingly self-directed and independent learning as the student progresses through the programme. This is supported in our programme by the adoption of Knowles (1998) perspective on adult learning that promotes student engagement and active learning. The findings from the study indicate that the nurse academics support these values and are committed to engaging in student centred, Socratic and reflective approaches to learning. Increasing class size for seminars to up to 40 students has impacted on lecturers and students can be summarised as:

Lecturing staff experienced increased levels of stress and exhaustion, difficulties with unruly behaviour and maintaining discipline during group work which impacted on lecturers ability to create and maintain enthusiasm and engagement with the class. The main coping strategy was to adopt a more didactic approach to teaching to gain more control over the class. These findings are supported in the literature by Owens (2017) and Pyles (2016) who have identified that nurse lecturers tend to disengage with classes where incivility is dominant and are likely to experience higher levels of stress.

The students experience of seminar work in larger groups supported the finding from the lecturers in that over a third of the students in the group evaluation felt that classroom control was poor and they found it hard to contribute to classroom discussions. There didn't seem enough time to present their group work findings and felt it would be better to have fewer student led seminars and more teacher led lectures. Interestingly in a controlled trial of active versus passive learning strategies use with 82 medical residents in large groups Haidet et al (2004) found students valued teacher led sessions more than student led sessions but knowledge acquisition was not affected.

Students recognised the value of active engagement with their peers in order to obtain support for learning, more so that through their lecturer and this is supported by Russel et al (2017). Large groups gave them more opportunities to experience diversity and exposed them to a wider variation of opinions. However some students with dyslexia identified that it was difficult to keep up with the group discussions, understand the context and make notes. This finding triangulated with the lecturer responses in that they recognised that it was harder to identify vulnerable students and they would resort to offering extra small group supervision in order to encourage more vulnerable students to achieve.

## Conclusion

In summary the findings identified that lecturers experienced increased levels of stress and exposure to incivility in larger seminar classes which led them to adopt more didactic approaches to teaching and learning. Students welcomed the larger groups because it gave them greater opportunities for embracing diversity and engaging in peer support, students with assisted learning needs struggled with working in larger groups and needed extra support.

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