Facilitation of collaborative learning: what works

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Abstract

This paper explores a number of issues surrounding the management of group dynamics in collaborative learning settings in medical education at the University of New South Wales, Australia. Better management of group dynamics is increasingly being recognised as crucial for the success of inquiry-based curricula such as PBL. The findings presented in this paper provide a practical framework for the identification of common problems in group dynamics that can confront facilitators, as well as a range of strategies that have been found by experienced facilitators to be useful in managing these issues. The strategies are discussed within the conditions in which they have been found to be effective, and facilitators are alerted about the possible pitfalls associated with these strategies. Thus, the paper explores a key aspect of the collaborative learning and teaching process and is a starting point for developing quality teaching support.

Keywords: teaching support, professional development, collaborative learning, small-group facilitation strategies; managing group dynamics; student behaviour; medical students; problem-based learning; scenario-based learning

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Introduction

This paper explores a number of issues surrounding the management of group dynamics in small-group learning settings. The findings of an ongoing study and the literature (Berkel and Dolmans 2006, Rolfe et al, 1997, Hitchcock & Anderson, 1997) have revealed that this is an area of great concern for many facilitators of small-group learning. The findings of the study are used to clarify how specific features of student behaviour impact on group dynamics and the findings are drawn upon to identify facilitation strategies that could be useful in these specific situations. The findings highlight the context-specific nature of these facilitation strategies and illustrate how the strategies would succeed only if implemented within appropriate conditions. This paper thus provides insight into the process of collaborative learning, the student behaviours that impact on it, and proposes practical strategies that can inform staff development activities.

Background

Recent reform in medical education has given rise to a new generation of medical curricula that are based on the PBL model and can be broadly termed Inquiry-Based curricula. Small-group learning and teaching activities are a feature common to most Inquiry-Based curricula, and often constitute a vital component of the learning and teaching process (Berkel and Dolmans 2006). A study conducted at the University of Maastricht by Berkel and Dolmans (2006), concluded that “...the success of PBL appears to depend strongly on tutors’ competencies, the quality of the PBL problems and group functioning” (p.736). However, there have been conflicting reports on the effectiveness of small-group learning within these curricula. Miflin (2004), cites work by Rolfe et al (1997), which suggest that the actions of some students had the effect of raising the anxiety levels of their small-groups, and work by Hitchcock & Anderson (1997, p.19), which suggest that certain types of behaviour could “actually harm individuals and the learning climate”. Other studies also draw
attention to the issue of dysfunctional groups which hinder the achievement of the objectives of small group learning (De Grave, Dolmans and van der Vleuten 2002).

Medical educators have responded to this challenge by analysing the issues that influence group dynamics (Miflin 2004, Berkel and Dolmans 2006). This work has better defined the nature of the problem, and has highlighted the need to train both facilitators and students to deal with dysfunctional groups (Hitchcock & Anderson 1997; Tipping et al 1995; DeGrave et al 2001 – cited by Miflin 2004; Berkel and Dolmans 2006). In spite of the wide range of work that has been done, there still appears to be significant concern amongst both teachers and students regarding dysfunctional groups and how to respond to them.

**Aims of the study**

This study had two major aims. Firstly, it aimed to identify areas in which facilitators required further support or skill development to foster a more productive small-group learning environment. Secondly, it sought to identify specific strategies that individual facilitators had found to be effective in encouraging a more productive small-group learning environment. However, it was recognised that strategies that are effective in one context may not be as effective in others, so the study also focussed on clarifying the context and conditions within which a particular strategy was likely to succeed.

**Setting**

The research was set within Phase I (years 1 and 2) of the undergraduate medicine curriculum at the University of New South Wales, Australia, which is designed on a principle known as Scenario-Based Learning. This program (described in detail by McNeil et al (2006)) is one of the more recent innovations that
come under the broad category of Inquiry-Based curricula in medicine, and includes a significant amount of small group learning and teaching.

**Methods**

The study included a survey that was followed by in-depth interviews with facilitators. The survey instrument was sent out via email to all small group facilitators (n=80) who had facilitated in Phase 1 of the Medicine program. Facilitators were asked to share their experience of small group facilitation in the program, to identify areas in which they required further support or skills development and to discuss the strategies that they found to be effective.

An interview guide was developed based on the themes that emerged from the surveys, and facilitators were invited to participate in semi-structured interviews. Ten facilitators agreed. These interviews further explored issues around the strategies that had been identified in the survey and also helped to clarify the specific training needs of small-group facilitators. A thematic analysis of the interview findings was conducted.

**Results and Discussion**

Analysis of the survey and interview findings revealed a number of interesting issues around the facilitation of small-group learning. The major issues that emerged can be categorised under the broad headings of ‘support needs of facilitators’ and ‘effective facilitation strategies’. Within the category of ‘support needs’, the management of group dynamics was the predominant area that was identified and this paper will focus on that aspect of the findings. Facilitators sought more support to develop skills to deal with a range of student behaviours that impact on group dynamics. These behaviours are discussed below.
Types of student behaviour that impact on group dynamics

1. The dominant students
Facilitators identified management of ‘dominant students’ as a challenge they commonly face. While dominance was generally regarded as a type of behaviour to be discouraged, the range of behaviours that were described suggested that there were two separate types of dominant behaviour. While one type of dominant behaviour was found to be disruptive, the other type appeared to have potential to play a positive role in fostering a collaborative learning environment. These two types of behaviour are summarised below.

1a. The dominant disruptive students: Facilitators tended to describe these students using terms such as “immature” “attention seeking” or “lacking in discipline”. These students tended to hinder the progress of the group by their desire to speak excessively on irrelevant or marginally relevant issues, and tended to distract the group or take up a disproportionate amount of group time. Facilitators also described a more extreme version of disruptive students, and used terms such as “difficult students” and “bad apples” to describe them. They described these students’ behaviours as “arrogant” and “disrupting the cohesion of the group”. Facilitators generally reported this type of behaviour as extremely problematic, and requested more support to develop skills to deal with such situations.

1b. The highly enthusiastic dominant students: Facilitators tended to describe these students with the term “outspoken”, but generally spoke of them as having potential to influence the group positively. Although these students are similar to the above students in their tendency to take up a disproportionately large share of the time available for discussion, they differ from the above by their genuine desire to engage with the learning process, and by making productive contributions to group discussions.
2. The passive students

Facilitators described a range of students who came under the broad umbrella of ‘passive students’. The descriptions suggested two very different types of apparently passive behaviour.

2a. The disinterested students: Facilitators used terms such as “lurkers”, “students with negative attitudes” and “lethargic” to describe these students. These students seemed to attend merely to meet attendance requirements, and generally tended to convey the impression that they would rather be elsewhere. They were not only passive, but generally found ways to avoid participation even when specifically allocated a task.

2b. The quiet students who work by themselves: Facilitators generally described these students as “quiet”, “shy”, and “lacking in confidence”. Facilitators indicated that they would like to develop skills in drawing out these students into discussions. There was a general impression that these students could make a useful contribution to the discussions if they could overcome their unwillingness or uncertainty in engaging with their peers. While there was concern that these students were not benefiting fully from the collaborative learning sessions, their behaviour was generally not felt to impact significantly on the group process.

Facilitation strategies that may help deal with the above situations

It was possible to identify a number of strategies used by experienced facilitators to deal with the types of student behaviour described above. These strategies and their relevance to managing specific types of student behaviour are discussed below.

The allocation of expert roles to students

This strategy involved the appointment of a student as the designated expert to run a specific learning activity during a small group session. The allocation of the role was done in advance, allowing the student to prepare
for their role. This was found to be an effective strategy to deal with several types of student behaviours. The first was when dealing with over-enthusiastic students, where this was found to be a useful way of drawing on their strengths while limiting their dominance. One facilitator had commented on how he “put the student in charge” and found that the strategy worked very well because “the dominant person realised the difficulties of facilitation”. However he further commented that this requires careful moderation by the facilitator to ensure that the student does not “use this as an opportunity to misdirect the group” or dominate the discussion even further.

This could also be an effective way to deal with quiet students who tend to work by themselves. These students generally respond enthusiastically when provided with the opportunity to prepare in advance to lead a discussion. This could also be a useful way to generate discussion in groups that are generally quiet.

This strategy has been found by facilitators to generally work well, within the condition that adequate support is provided to the student to ensure that the aims of the learning activity are met. In the absence of appropriate support, this strategy could result in the discussions heading in irrelevant directions, lack of control over time, premature closure of discussions or general chaos.

**Allowing students to spontaneously lead an activity**

This is a variation of the above strategy, and differed by being more spontaneous in nature, with minimal opportunity for advance preparation. Facilitators reported how they invited volunteers to lead the discussion or manage a scheduled activity. Facilitators emphasised how the strategy could work well if an appropriate match was found between the strengths of the student and the relevant learning activity. They highlighted how the facilitator needs to moderate their own involvement in this strategy, depending on the degree of match between the demands of the learning activity and the skills of the student.

This strategy can be an effective way of developing students’ ownership of the small-group learning sessions, and to thereby increase levels of student participation. It can be particularly useful in generating discussion in
topic areas of personal relevance to the student peer group, since students are often better able to frame questions in ways that engage their colleagues. This strategy therefore has the potential to minimise many of the above types of undesirable behaviour, and to generally increase the productivity of learning sessions.

Pairing students with complementary strengths

One strategy reported by facilitators was to pair students with differing and complementary strengths, and ask them to collaborate on certain activities (which they would otherwise do by themselves). For example, when an activity included a period of reflection or problem solving, facilitators had tried pairing a quieter student with a more dominant student, with instructions to discuss the issue and report back, with the quieter student as the designated reporter. They reported that this strategy worked well, but required the careful selection of appropriate pairs for appropriate learning activities. They noted it also demanded that the facilitator had a good understanding of the capabilities of all students in the group.

This strategy has the potential to be useful when dealing with dominant and quiet students, as well as when dealing with generally disinterested students. It is however important to be aware that on some occasions, such pairings can lead to the sharing of the undesired behaviour, rather than the desired behaviour as was intended by the strategy.

Allocating time for reflection at the end of each session

Facilitators had found this to be a useful activity that enabled students to reflect on both the content and process of their learning sessions. However, they cautioned that this could become tedious if used excessively, so recommended judicious use on selected occasions only.

Modeling of behaviour that is expected of students

Some facilitators described how they modeled the learning process that they expected from the students. A major drawback of this strategy is the effort and time commitment that is required of the facilitator. It can also
result in building unrealistic expectations of the facilitator, including a failure on the part of students to accept responsibility for the process.

*Speaking to students individually*

Facilitators suggested that it was important to recognise certain types of behaviour early, and to take appropriate steps before it progresses too far; this often required them to speak to the student individually. This strategy was found to be useful when dealing with the disruptive students or the more quiet students.

**Conclusions**

The findings presented above draw links between specific types of student behavior in small-group learning settings, the impact of this behaviour on group dynamics, and strategies that facilitators can use to better manage these group dynamics. It is important to re-iterate that the strategies have been found to be effective only if the appropriate conditions are provided. While drawing on the large body of literature on generic facilitation strategies, this paper emphasises the role of the facilitator in providing the appropriate conditions for the strategies to succeed.

The management of group dynamics is a challenging area, and academics require further support to develop effective skills to foster collaborative learning environments. The findings presented above provide a practical framework for the development of targeted and effective staff development activities.
References


