

A flipped approach to fostering collaboration for paramedics learning to manage mental health presentations

Keywords: flipped Learning, collaboration, paramedicine, communication, mental health

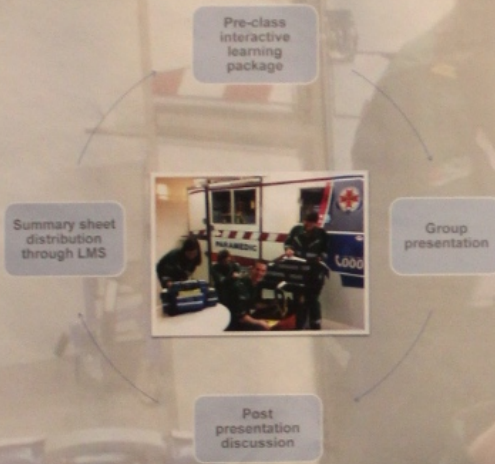
Introduction

Paramedics are increasingly engaged in managing a range of mental health presentations in the acute setting. Presentations that paramedics are called to manage may be acute or chronic mental health issues. As such, paramedics need to have sufficient understanding of common diagnoses, their signs and symptoms and typical management within the field of mental health. In interacting with people presenting with mental health issues, paramedics are required to draw upon well-developed communication, interpersonal and negotiation skills. In the pre-hospital environment, the safety of paramedics and those they attend to is often dependant on these skills.

Previous approaches to teaching the management of mental health issues to this group have been more teacher focussed in that content related to various 'typical' mental health presentations have been delivered through lectures developed by academic staff. Whilst it is arguable that this has meant students have been exposed to a greater depth of content related to mental health diagnoses, students have not been required to draw upon and further develop communication, interpersonal and negotiation skills that are critical to their safety and clinical care in the field.

In order to improve the development of communication, interpersonal and negotiation skills, a flipped learning approach was adopted within the unit PARA207 Mental Health for Paramedics. The approach taken was as follows –

- Students are allocated to groups to design and present a paramedic 'fact sheet' on an allocated mental health diagnosis
- Students complete an online multimedia learning package related to a specific mental health presentation in 5 designated weeks of the semester before face to face classes
- Presentations take place in face-to-face classes
- Student presentation and learning package on specific diagnosis form the basis of class discussion
- 'Fact sheet' made available through LMS and further discussion of content invited online



Aims

This project aimed to explore the value the flipped learning approach adopted within the unit from the perspective of students.

More specifically, this exploration focussed on -

- accessibility of resources
- level of engagement with resources and staff
- clarity of expectations
- linkages between online and face-to-face components of the unit
- alignment to assessment
- real world relevance
- alignment to learning needs, styles and preferences.

Method

- Students completing the unit PARA207 Mental Health for Paramedics in semester 1, 2016 completed a 25 item, 4 point Likert scale survey focusing on their experience of a range of flipped learning strategies implemented.
- Qualitative responses were also invited from students in the survey.
- Analysis – The quantitative data derived from Likert scale responses was analysed using descriptive statistics. Responses to the 25 Likert-scaled questions were aligned to the 7 focus themes listed. The percentage of participants supporting a statement by selecting 'to a moderate extent' or 'to a great extent' on the scale were totaled. The average percentage response to questions aligned to various themes was calculated within each category as an indicator (see Table 1).
- Thematic analysis of qualitative data was undertaken and this data was used to enrich and support the quantitative data.

Figure 1: Flipped learning cycle

Results and discussion

Of the 148 students enrolled in semester 1, 2016, 87 completed the student evaluation survey focussing on the flipped learning strategies used in the unit PARA207 Mental Health for Paramedics. The quantitative results are presented in Table 1. The results derived from the qualitative and quantitative data aligned to various themes within the survey are presented below:

Accessibility of resources

Participant responses tended to support the premise that resources were accessible to them, tasks were able to be completed within required timelines and staff were available for clarification where necessary. Some students however continues to express a desire for "more content delivered through lectures in class" raising the issues of the cultural change challenges which still exist in implementing flipped approaches as some students may see themselves a passive consumers of content.

Level of engagement with resources and staff

By a slight majority, participants indicated that the flipped learning approach adopted assisted them to engage with both content and other students. One participant felt that flipped learning "it slightly more difficult to ask for clarifications of a slightly varied explanation".

Clarity of expectations

A strong majority of participants were supportive of the premise that expectations of them were clear. Some students sought clarification of administrative matters such as "due dates" and attributed this to the flipped learning approach.

Linkages between online and face-to-face components of the unit

Although most participants indicated that there was a clear alignment between the online and in class activities, there was not a majority indicating that the pre-class activities prepared them better for class participation. Fewer participants again saw the linkage of activities to novel situations.

Alignment to assessment

Overall, feedback indicated that students were unclear about the alignment of the learning activities to the assessment tasks they were required to complete.

Real world relevance

Participants were generally able to see the relevance of online and in class activities to how they may need to apply content knowledge and skills to real world situations. Some students however expressed a desire for "more case studies" in order to apply understandings to practice.

Alignment to learning needs, styles and preferences

In a general sense, the flipped learning approach implemented facilitated a flexible approach that accommodated the learning needs of students

Conclusion

The analysis of participant feedback suggests that overall the flipped approach to facilitating learning in the unit PARA207 Mental Health for Paramedics assisted students to achieve the required learning outcomes whilst providing a flexible means of learning that suited the style of the majority of study participants. Although some improvement is required in aligning a number of learning activities to assessment tasks students the flipped learning approach engaged students in classes and assisted them to prepare for real world applications of knowledge and skills. Further research into the quality of learning promoted by the flipped approach is required to further validate this teaching approach.

Table 1		Mod % (A)	Great % (B)	A + B %	Average
Accessibility	There are a variety of methods for seeking advice from staff teaching this topic	42%	25%	67%	78%
	The online pre- and in-class activities were readily accessible	29%	62%	91%	
	The workload and timelines for the pre-class activities were reasonable	52%	24%	76%	
Engagement/participation	My interest in the topic was stimulated by completing the flipped learning activities	42%	5%	47%	53%
	I actively participated in the pre-class activities by, e.g. answering questions, making notes and/or asking questions to ask in class	40%	8%	48%	
	I actively participated in class by, e.g. answering questions, completing quizzes and hands-on exercises, discussing and presenting ideas, and/or group activities	48%	12%	60%	
	Participating in flipped learning activities made me feel part of a learning group	29%	14%	43%	
	Working with other students in class has improved my understanding of the topic(s)	48%	19%	67%	
Clarity of expectations	The flipped learning approach encouraged positive interactions with teaching staff that supported my learning	46%	13%	59%	72.5%
	It was clear to me that I would be expected to actively participate in class activities	51%	25%	76%	
Linkages	It was clear that my learning will be assessed by demonstrating understanding and application of knowledge	44%	25%	69%	58%
	The pre-class activity prepared me to participate in class (lecture/practical)	40%	8%	48%	
	The concepts covered in class were clearly linked with the pre-class activities	49%	33%	82%	
Alignment to learning styles, real world relevance	The flipped approach has prepared me to apply what I have learnt to new situations that were not discussed in class	40%	4%	44%	61%
	In the flipped learning activities, I received adequate feedback that focused on improving my understanding of key concepts	21%	5%	26%	
	The flipped learning approach helped me identify what I needed to do to improve my performance	36%	4%	40%	
	There were clear links between the learning activities and assessment tasks for this topic	48%	25%	73%	
	The flipped learning approach helped me to identify effective ways for learning a new topic	41%	4%	45%	
	The flipped learning approach required me to make connections between concepts in this course	44%	11%	55%	
	The flipped learning activities required me to make connections between concepts in this course	46%	12%	58%	
	The flipped learning activities helped me use the importance of learning this topic for my future career	39%	25%	64%	
	The teaching staff adopted the learning activities in response to gaps in my learning	36%	10%	46%	
	The flipped learning approach involved various activities that suited the way I learn	39%	4%	43%	
The flipped learning approach enabled me to work at a pace that matched my current knowledge	57%	23%	80%		
The timing for the pre- and in-class activities catered for my study and personal commitments	52%	23%	75%		