

We are grateful for the micromodules courseware development grant in which we were able to successfully develop micromodules and incorporate flipped classroom in our family medicine teaching. These micromodules were able to convey key concepts in family medicine education and training. In particular these modules can help students who struggle with the breadth and depth of learning required from such a broad based specialty, that lies outside the protocol driven context of hospital based patient presentation, investigations and management and the difference of illness presentation in the community is also different from the hospital and the treatment may vary according to existing co-morbidity.

The student learning outcomes of the micromodules included:

- a) Understand common presentations, diagnoses, investigations and treatment options in family medicine
- b) Application of knowledge and to enhance critical thinking about interacting factors to diagnosis formulation and care plan management.

In total 12 micromodules were produced that encompassed different skills or knowledge in family medicine. These include:

Domain	Micromodule	Blended learning
Approach	Approach to undifferentiated symptoms and diagnoses formulation	Case Scenarios & discussion Spot diagnosis & discussion U-reply Roleplay workshop
	Patient management in primary care	
Diagnosis & management	Common Self limiting conditions	
	Vague symptoms (Dizziness, headache)	
	Common Skin conditions	
	Common genitourinary conditions	
	Hypertension and hyperlipidaemia	
	Diabetes mellitus 2	
	Hyperthyroidism and Hypothyroidism	
	Gastroenteritis symptoms and disorders	
	TIA and stroke	
	Emergencies: unstable angina, MI and anaphylaxis	

The blended learning modalities involved one or combination of the following:

- Case and spot (photo) diagnosis & discussion – cases and photos discussed from diagnosis to management – whole class
- Video discussion – with own student video or other professional video cases in class/ whole class
- U-reply – Multiple choice assessments can anonymously answer the class
- Roleplay workshop – 16 cases highlighting different cases in 4 roleplay workshops (using 4 tutors in small groups)

The micromodules content encompassed the latest evidence base from dynamed and essential evidence plus for students students self directed learning and relevant to current practice.

The interactive workshops/tutorials are case based which test student on the acquired skills applicable to a clinical scenario commonly presenting to family medicine clinic.

A survey of students in Module III (November 2016 – January 2017) (n = 45) rated showed that students rated the micromodules as useful (mean 5-5.15) on a likert scale from 1 strongly disagree to 6 strongly agree. They had felt that the micromodules was accessible and convenient to use when in you tube format (mean 5.11), that they were encouraged to participate in class (mean 5.07) and that teaching time was put to good use (5.18). Lower ratings although positive were for preferring flipped classroom to ‘traditional’ lecture seminar learning (mean 4.91) and for all family medicine lectures to be ‘flipped’ (mean 4.49, [Disagree 2, Slightly disagree 9]). However, students generally wanted more teaching in these format.

Overall, clinical teaching can be achieved using flipped classroom and may be considered in other specialties.