

***“Micro-teaching”: The application flipped learning to invert the sports science classroom  
with smartphone and tablet devices”  
(Project code: 3210731)***

**Interim Report (6 June 2016)**

The project aims to develop micro-modules as an effective teaching tool to assist the understanding of the basic principles involved at the research, organisational, officiating and administrative levels of sport and physical education (PE). These micro-modules help to develop a deeper understanding of the theoretical and practical educational materials which form a central element to students’ learning.

The first three micro modules comprised of demonstration, hands-on activities and online tutorials highlighting how IT (tablet / smartphone / computer) can be used as an effective tool to assist the understanding of the basic principles involved at the organisational, officiating and administrative levels of sport and physical education.

**The following micro-modules have developed:**

These micro modules serve to create a “flipped classroom” and an active learning environment, promoting student engagement. They are listed as follows and tentatively placed at [http://it2.bwwtc.edu.hk/sspe\\_cdg/](http://it2.bwwtc.edu.hk/sspe_cdg/) :

1. *CPM/PERT network scheduling in PE and Sport (Athletic meets and swimming galas)*  
In order to provide better control of sport related activities and to develop better troubleshooting procedures, this micro module helps students to expedite planning and eliminate idling time with uncertainty in the development stage.  
[Module 1 - CPM / PERT \(Teaching Materials\)](#)  
[Module 1A - CPM / PERT Apps \(Demo Version\)](#)
2. *Tournament set-up (round robin, single and double-elimination and mixed system)*  
Through understanding the formula, rounds and seeding system, this micro module helps students to design and build fair tournament brackets.  
[Module 2 - Tournament \(Demonstration Video\)](#)  
[Module 2A - Tournament Apps](#)
3. *Video tutorial: Officiating Skills in Tennis*  
Pre-service teachers are not simply learning tennis skills in their course, they can acquire a better understanding of the rules and regulations of a formal tennis game via a flipped tutorial. Ultimately, it is expected that they will have the basic knowledge and be able to officiate a single/doubles tennis event.  
[Module 3 - Flipped Classroom\(Tennis\)](#)

A thorough evaluation process including student surveys and focus-group interviews on the impact and outcomes of the micro module implementation will be conducted in September 2016. Feedback collected can therefore benefit the next stage of development.

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