Mobile Devices In PBL

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Introduction/ Background
Problem-based learning is a dynamic process through which students not only learn content knowledge but also skills important to their medical career, such as problem solving skills and communication skills. Technology can potentially contribute to this process, such as the use of mobile devices (defined in this study to include laptop or notebook computers, smartphones, and tablets) for search of information during PBL. But it presents both opportunities and challenges to the students and the facilitators.

Purpose/Objectives
The aim of the present study is to describe the pattern of usage of mobile devices among the students in three undergraduate healthcare professional programmes in one university in Hong Kong, such as how many students are using these devices, how these devices are used during PBL, and how the students think about some guidelines suggested by the authors on the use of mobile devices during PBL.

Method or Issues for exploration/ideas for discussion
The study was approved by the local institutional review board. The students in the relevant years of the medical, dental and speech and hearing programmes at The University of Hong Kong were invited to voluntarily complete an online questionnaire that has been developed by the authors based on the results of interviewing students and facilitators on their use of mobile devices in PBL.

Results
A total of 346 students (response rate of 32%) completed the online questionnaire. Almost all of them have at least one mobile device (99%) and most of them (98% of all respondents) used their devices during PBL, usually for learning, but also for non-learning purposes. The learning activities enabled by mobile devices can be categorized into three main types: information search (for such information as definitions of terms, multimedia files, journal papers, etc), information synthesis (such as collaborative construction of PBL notes using cloud computing platforms, presenting learning results, etc), and the use of specific tools (such as anatomy atlas on mobile devices and other apps for constructing visual representations of knowledge). Very small percentage of students do not use their mobile devices in PBL. The reasons include facilitator's discouragement and the students' deliberate choice to focus on the PBL discussion rather than on the search for information.

Conclusion
The use of mobile devices during PBL is rampant. Based on the survey results, the authors suggested the following guidelines on the use of mobile devices: students should be free to choose whether to use their mobile devices or not; the devices should be used for learning only during PBL; PBL tutorial time should be spent mostly on discussion and not on searching for information; students should be encouraged to collaborate using cloud computing platforms.