Learning Fungal and Plant Biology via “Science Mobile”

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Introduction
Our project enhances the learning experience for students by:
- promoting ubiquitous learning by digitalising lab specimens and wildlife examples with relevant information and explanation;
- fostering knowledge integration with hashtags and in-text links for swift connection to related topics;
- guiding students with learning modules so that they can go step by step in their learning pathway;
- encouraging self-learning with self-assessment and in-class sharing.

We have so far created over 226 learning objects and 15 modules/learning paths under the themes "Plant Biodiversity" and "Fungal Biodiversity" in “Science Mobile” apps, including 19 videos, 1080 photos, 43 illustrations, 397 questions and 800 hashtags/links in addition to the basic information and descriptions. In the coming few months, we aim to enrich the themes with additional videos and learning objects.

Modules
By browsing different learning modules, learners can access various sets of learning objects. Examples of learning modules:
- Application of Fungi
- Edible Fungi
- Fungal parasites
- BIOL3012 Biodiversity Laboratory

Conclusion and Future Prospective

Lab Courses:
BIOL3012 and BIOL3022-Biodiversity Lab I and II
- Scanning of QR codes on specimens or PDF
- Read specific information of the specimen and extend the knowledge through hashtags/links
- Completion of the assessment items to earn marks

Lecture Courses:
BIOL3560-Biology of Fungi and Non-vascular Plants
BIOL3570-Biology of Vascular Plants
- Browse the learning modules and read the preassigned learning objects
- Write notes for the learning items; complete all associated assessment items
- Share their knowledge in the small group discussion in the lecture room or the breakout rooms of Zoom session

Hashtags
By using hashtags, learners can quickly link the current learning objects to the related learning objects, and thus achieving knowledge integration.

Video
Other features:
- View recent popular articles
- View all articles from two disciplines and six themes
- Change account details and view bookmarked articles
- Bookmark your favorite articles
- Show the history of your navigated articles when you use in-text hyperlinks

Assessments
Multiple-choice/matching questions to test learners’ knowledge on the learning object. Such kind of educative assessment builds learner insight and understandings about one’s own learning.

Scanning By scanning QR code labels on the specimen shown in the lab session, learners can access related learning objects ubiquitously.

Photo
Multimedia
Well-labelled micrographs, photos of live specimens and in-house videos facilitate the acquisition of knowledge by visual learners. They help the learners to understand the specimens from different perspectives.

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