VETPERT: A Veterinary Parasitology e-Revision Tool

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Abstract

During the past two years of pandemic until today, the conventional face-to-face teaching and learning approach was limited by the Movement Control Order and Home Surveillance Order particularly for students and lecturers that are affected by COVID-19 infection. The capacity to conduct online classes was also limited due to low-bandwidth coverage in some areas during the early stage of pandemic; causing demotivation among final year veterinary students to make revision for their comprehensive exam. Therefore, a simple, compact and easily accessible interactive self-revision note of Veterinary Parasitology subject has been designed. All topics are embedded within one interface of ThingLink, a digital educational tool that integrates the use of visual media into interactive graphics. Rich Media Tags (RTM) are inserted on the uploaded static images thus creating special points that linked to the other platforms such as notes, figures, videos, audio, social media, Google forms and many more. By clicking the RTM, the students could also listen to the lecturer's voice while navigating the revision note anywhere, anytime using any devices that are connected to the internet even in low-bandwidth areas. This learning tool requires the students to click the blinking icons to follow the pop-up of lecturer's voice and instructions. The students are required to click the blinking icons from the right to the left to revise Veterinary Parasitology subject. To assess the students' understanding, the leftmost blinking icon located at the bottom of the interface has been generated to collect student's attendance, questions and feedback in a Google form. All 41 final year veterinary students of Class 2020, Faculty of Veterinary Medicine, Universiti Malaysia Kelantan used the tool for their revision. Seventeen of the students filled the feedback form. Eight of them responded with questions indicating their interaction and involvement with the created contents. Six of responded students found that this platform was very helpful to revise Veterinary Parasitology subject. This designated revision note has not resembled anything formerly used for teaching and learning of this subject. There is a potential to develop apps for veterinary courses revision notes based on this e-revision tool.

Keywords: ThingLink, Veterinary, Parasitology, E-Revision, Interactive

Background of the Invention

The recent COVID-19 pandemic causes a major turnover and affects millions of people worldwide. As of March 2020, more than 180 countries have implemented a nationwide lockdown, leading to the shutdown of various important sectors including education (UNESCO, 2020). In

Malaysia, the movement control order forced all schools and higher education institutions (HEI) to be closed for nearly four months to limit the spread of the disease. Thus, the Ministry of Higher Education has given the approval for all HEI including public and private universities to conduct online teaching or e-learning (Menon, 2020). However, the capacity to conduct online classes was limited due to low-bandwidth coverage in some areas during the early stage of the pandemic. Currently, the conventional face-to-face teaching and learning approach is also limited by the Home Surveillance Order for students and lecturers that are infected by Covid-19. In our faculty, these problems lead to demotivation among final-year veterinary students to revise for their comprehensive exams. Therefore, a simple, compact and easily accessible interactive self-revision note on Veterinary Parasitology subject has been designed.

Description of the Invention

ThingLink is an educational digital tool that integrates the use of visual media into an interactive graphic (Oxvenad, 2012). It has become the most popular cross-platform multimedia solution allowing the integration of digital creations with various social media platforms (Inozemtseva et al., 2018). We use ThingLink (https://www.ThingLink.com/) to create an interactive self-revision note known as 'VETPERT: A Veterinary Parasitology E-Revision Tool' (Figure 1) for the final year veterinary students Class 2020 in the Faculty of Veterinary Medicine, Universiti Malaysia Kelantan. Interactive Rich Media Tags (RTM) in ThingLink were embedded with plain graphics and voice recording of the lecturer to explain the topics of Veterinary Parasitology. A target population of 41 students were required to make revision by clicking the RTM from right to the left where the topics of this subject have been arranged chronologically. However, it was not compulsory for the students to fill out the feedback form. There are question mark icons for the students to take a quiz on the UMK eCampus platform. In this assessment, the students are required to point their cursors to the question mark icons on each animal to access different parasitological problems of different animal species. The students will then need to match the most correct parasite that caused the parasitic problem on each animal (Figure 2). All target students used the tool for their revision (n=41) and 17 students filled out the feedback form. Forty-seven percent of them (n=8) responded with questions indicating their interaction and involvement with the created contents and 35% of the responded students (n=6) found that this platform was very helpful to revise the Veterinary Parasitology subject.

Significance of the Invention

ThingLink has been selected as the main platform for VETPERT to enhance the online learning experience. It is accessible over network links with low bandwidth and high latency. Hence, students will be able to revise the Veterinary Parasitology subject at their own pace anywhere, anytime using any devices that are connected to the internet. We uploaded or imported the static images to the ThingLink platform to create an interactive learning module which can be navigated by the students. RTM are special points which can link the focus image to other images on other platforms (e.g. Google Photos, Flickr), audio (e.g. Soundcloud, Spotify), videos (e.g. YouTube, TED), social media (e.g. Twitter, Facebook, LinkedIn), websites, documents, photos and drawings. ThingLink identifies the tag contained in RTM and creates the necessary functions to display it. Additionally, all creations are stored on the ThingLink platform where the creators can control the privacy of the content whether to make it private or public (Berman, 2017).
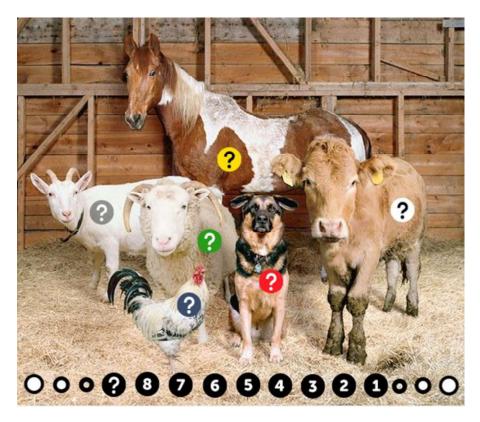
Figure 1: Background Image with Rich Media Tag that Contains Multiple Functions in VETPERT.

Figure 2: Revision Quiz Where the Students Can Conduct Self-Assessment After Revision.