Research Article

Use of Brushes Redux app in Identification of General Pathology Spotters

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ABSTRACT

The aim of this study is to explore the use of Brushes redux app in identification of General Pathology spotters by tracing their features without the original histopathological image. Brushes redux iPad app is an artistic tool that is used by artists all over the world, both by professionals as well as amateurs. The application has multiple layers that one can work on separately which are a useful an educational setting. Each layer is independent. Thus, each layer can be worked on without disturbing the other layer to give more depth and perception. The study was conducted in Saveetha dental college, Chennai with 100 students of second year in Batchelor of dental surgery (BDS), for whom general pathology is a part of the curriculum. The students were shown 10 pathology spotters, traced in the brushes redux app. They were given a questionnaire are with open ended questions to fill. The results were then tabulated and calculated. To know how the technological advancement are a useful alternative and more interactive method for teaching pathology.

Keywords: Brushes redux app, Batchelor of dental surgery (BDS), histopathological image.

INTRODUCTION

The use of digital materials in the creation and display of art is now commonplace. Digital painting apps such as Brushes redux and Sketchbook pro mean that art production and distribution are more widely available[1]. The Brushes redux app allows users to upload images online to the Brushes Gallery, (Brushes Gallery) which has more than four thousand members[2]. The digital art form is used by amateur enthusiasts as well as professional artists such as David Hockney. Brushes redux utilises a detailed network as well as artificial intelligence to produce detailed images. The Brushes redux app has several individual layers which can be used without a stylus which is useful for educational purposes. Each layer is independent. Thus, each layer can be worked on without disturbing the other layer to give more depth and perception. [3]

MATERIALS AND METHODS

The materials consisted of 10 pictures of running General pathology slides from Saveetha dental college and hospitals, which were focused and viewed in simple microscopes. They were also photographered and the architectural morphology was traced.

100 students were chosen at random and asked to view the slides and focus important features. They were then shown the traced pictures and asked to identify the specimen. The study was done from 1st December 2017 to 1st Feb 2017.

RESULTS

Out of the 100 students who participated, 87 were girls and 13 were boys.

**Table 1:** Shows Number of slides identified manually in microscope

Number of slides identified	Percentage of students
10	88%
>5	7%
<5	5%

Table 2: Shows salient features identified by students in microscope

Salient features identified	Percentage of students
>8	15%
>5	40%
<5	45%

Table 3: Shows number of slides identified in brushes app

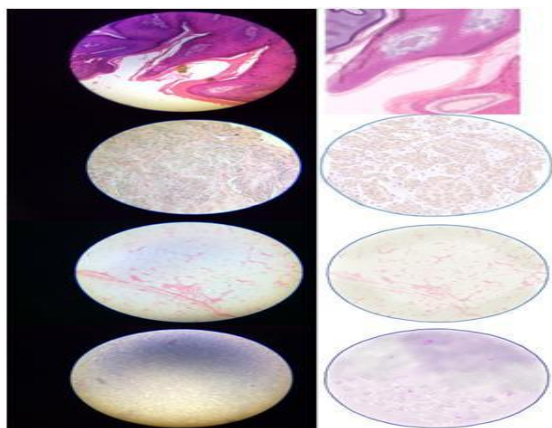| Number of slides identified	Percentage of students
10	89%
>5	8%
<5	3%
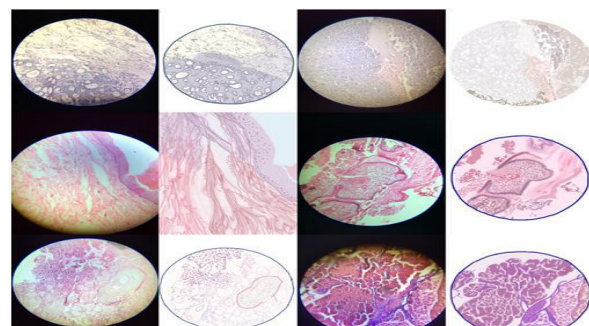
Figure 1: Shows traced slides and their original counterparts

DISCUSSION

iPad education is a new and growing trend among students and teaching institutes. The main features of an iPad include portability, internet connection and several educational multipurpose apps that allow a new hemisphere of interactive learning. The iPad can serve as a bridge between the student and the teacher to communicate without compromising on the quality of information. It supports child-led learning which encourages more student teacher interaction. So it serves as both, a relational tool as well as an informational tool.[4] In the same way they helped children become aware of the iPad's affordances and its appropriate use. Quality teacher-child talk not only benefitted the individual child but also served as a model for children of how talk can be used and useful to group learning. Generally the iPad skills are picked up by observing and trial methods, the teachers too aid them in learning which strengthens the relationship. iPad allows valuable interaction between classmates for peer led learning and exploration. iPad supported learning opportunities also helps to encourage children's literacies as well as social relationships at that certain place[5].

Findings show that homes too can foster this intellectual teaching tool to improve interests and give way for curiosity. Parent and guardian comment show the immense growing importance of technology in all aspects of a child's life. By downloading apps at home, they allow the children to extent learning interest and hours and strengthening home practices[6]. However, parents as well as teaching personals cautioned the need for proper guidelines, awareness and awareness to ensure effective use of digital technologies without any distractions. These guidelines are also enforced at home centres to main healthy practices.

From the results it is clear that students have identified slides (88%) more easier in the traced brushes app when compared to the microscopes (89%). This could be contributed to the fact that as the slides are traced, the neural system of the brain gets wired to remember the pattern better rather than drawing a somewhat related picture.

The statistics that students could not successfully identify salient features, goes to show that in most cases, only the morphological architecture is remembered. Hence, of the students could trace even the salient features, they would have a better understanding of the pathology as a whole.

CONCLUSION

Students, teachers and educational institutions should use iPad to ensure hands on learning and child led learning, which has a stronger impact on the child and learning process. They continue to show significant promise in teaching and learning, often with impressive results. Slides traced in brushes app can be used for revision purposes in colleges to help aid in easier identification of spotters. It also promotes a more involved method of leaning, one that helps students remember much efficiently.

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