BUILDING AN INTERACTIVE ONLINE TEXTBOOK: A TOOL AT OUR FINGERTIPS

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BACKGROUND
Last year, we reported on the Health Sciences Toolkit, which is an intensive bridging program that covers basic concepts in the disciplines of chemistry and biology, and then applies them to anatomy and physiology (Kapoor, Megaw, Harrison, Simcock & Miller 2018). We needed a resource that would lay the foundations for this diverse range of disciplines. As today’s university students are often considered digital natives, we tried to source an E-book. Unable to find a commercially available textbook pitched at an appropriate level, we decided to build our own, embracing Macknight’s advice on creating online content to create a healthy learning environment (2019). Here, we report on the development of a custom-made online textbook for ToolKit.

PROCESS
The educational software company TopHat provided us access to online resources from which we could source and modify content. We produced a 10-chapter text book; each chapter matched a content module and explicitly linked with the learning outcomes of the subject. The modification included the insertion of links to interactive learning resources for student exploration. Each chapter concluded with a list of key words and concepts, a summary discussion, and selected multiple choice questions for knowledge consolidation and review; we were able to regulate the timing of the release of chapters. The textbook was hosted within the TopHat learning platform and students were given access on payment of a minimal fee ($11).

REFLECTION
We found the development of the custom textbook a very efficient and effective process. We did not have to worry about copyright issues; or the time-consuming editing process for consistency, as the $6000 contract outlay to TopHat covered that. The resource can be edited, scaffolded and customised to future cohort needs (we can report on this process as we have also utilized this resource for an AQF-5 level diploma subject based on the ToolKit). Most importantly, the majority of students found the interactive text book useful for their understanding of the subject content, a finding supported by others (for example, Chen 2018) who have used custom-built online textbooks to create engaging digital learning environments.

REFERENCES

Proceedings of the Australian Conference on Science and Mathematics Education, The University of Sydney and University of Technology Sydney, 2 - 4 October 2019, page 50, ISBN Number 978-0-9871834-8-4