Developing Interactive Digital Learning Resources- A Case Study for MSc Surveying Modules

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SUMMARY

The Covid-19 pandemic altered the way module delivery was structured, resulting in accelerated digital learning resources for surveying. One of the initial measures implemented was a series of videos, which demonstrated how the different activities within the module were conducted. After obtaining initial feedback from the students, the authors found a need to further expand on these resources and create a new module, which embrace new technologies for digital learning.

The authors aligned this initial feedback to contemporary pedagogic practices and developed an interactive digital learning environment, which embraces inclusivity, with the support from specialist departments. To ensure the overall success of the new resources, further student feedback was obtained and assessed, to review the efficacy of the developed materials to enhance student participation, experience, and support.

A structured questionnaire allowed for analysis of the views of undergraduate and postgraduate students to quantify the benefits and shortcomings of the initial digital learning material, specifically looking into:

- Ease of access to resources,

- Depth and breadth of areas covered,

- How students utilised the resource,

- How it has expanded student appreciation and/or knowledge of the discipline,

- Accessibility for students with support

plans,

- What platform was used to view the material,

- Overall benefit of the resource.

Designing the new module incorporated this feedback, specifically ensuring that students were able to interact with the module on various devices/platforms, the information was delivered in smaller components, enhanced interaction with the speaker, and ensuring examples were conducted on relevant equipment. After implementation of the module, a second questionnaire was undertaken by students, using the same questions as previously, with answers based on the newly developed material, to assess overall efficacy.

The authors developed a resource appropriate for multiple platforms, with the ability for transcripts to be presented in different languages, different font styles sizes etc for inclusivity. Although there were issues with accessing the resource remotely within the surveying field, due to poor signal/ connectivity, the resource provided the student to have a greater technical vocabulary prior to undertaking the works. To obtain full benefit from the resource, some prior academic experience with high end surveying equipment was required, but the resource did provide the ability to monitor and track student engagement, helping provide a strong resource before the student undertake the fieldwork.

Developing the resource expanded the authors knowledge within technical enhanced learning for students, including the capabilities and some developments of the area. Within the institution, the newly developed material lays out a template for good practice, helping provide enhanced ways of working for students with support plans, such as dyslexia or English as a second language. The development of the resources further expanded the team’s knowledge.