A triple-blended eLearning model

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1. Introduction

Research Services

We provide Research Services to:

- Academic Staff
- Professional Staff
- Doctoral candidates
- Postgraduate students

AIL courses for Engineering

Courses embedded with Academic Information Literacy (AIL) contents:

- Five Postgraduate courses

- Five fourth-year undergraduate project courses (postgraduate level) by 2018
- One core first-year course from 2016-2020

Pandemic effect - Opportunity for change

- Covid 19 outbreak in early 2020

- An emergency change into online teaching and learning in the University

- Libraries and Learning Services adapted to the change immediately

2. A new sustainable approach

The first year eLearning initiative

- A case study conducted in 2018 to evaluate the relevance and impact of the eLearning initiative
- Methodologies used for the case study
- Main findings from the case study
- The eLearning Initiative was adapted to the new sustainable approach

Collaboration with the Faculty

- Two postgraduate course coordinators in the Faculty
- Student Experience Adviser in the Faculty - the course coordinator of Graduate School of Engineering

Course design - A triple blended eLearning model

- Online face-to-face workshops
- Drop-in sessions for each curriculum postgraduate course after the workshops

- Research and Study Skill Resources hub available in Canvas of the Graduate School of Engineering course

Digital technologies and tools applied

- Canvas and Course-builder
- Zoom including the functionalities of chat, breakout room, poll and recording
- Video editor
- Mentimeter and Slido for Q&A section

Design Principles

- A student-centred design approach
- **Associative view** (learning as activity)
- **Situative view** (learning as social practice)
- **Constructivist view** (learning is personally meaningful to the students)

2.1 Online face-to-face workshops

Online Face to Face Workshops

- 1.5 hour sessions were delivered via Zoom in early evening

- Contents convered including:
  - Literature review and informaiton sources
  - Searching, Referencing and Research impact metrics for publishing

- Activities, real life stories, polls, videos, Zoom chat and breakout room discussions to make workshops interactive

Example 1 of slides in an online workshop

Step 3: Identify synonyms

Research topic: Effect of climate change on public health

	Concept 1	Concept 2	Concept 3	Concept 4
Keywords	effect	climate change	public health	Life cycle assessment
Synonyms	impact	weather change	human health	LCA
	influence	global warming	population health	engineering
			social health	

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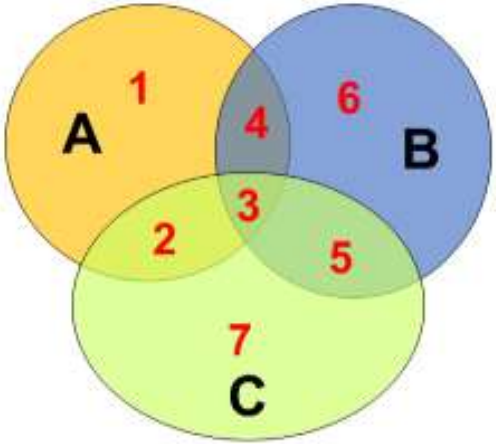
Example 2 of slides in an online workshop

Activity 1:

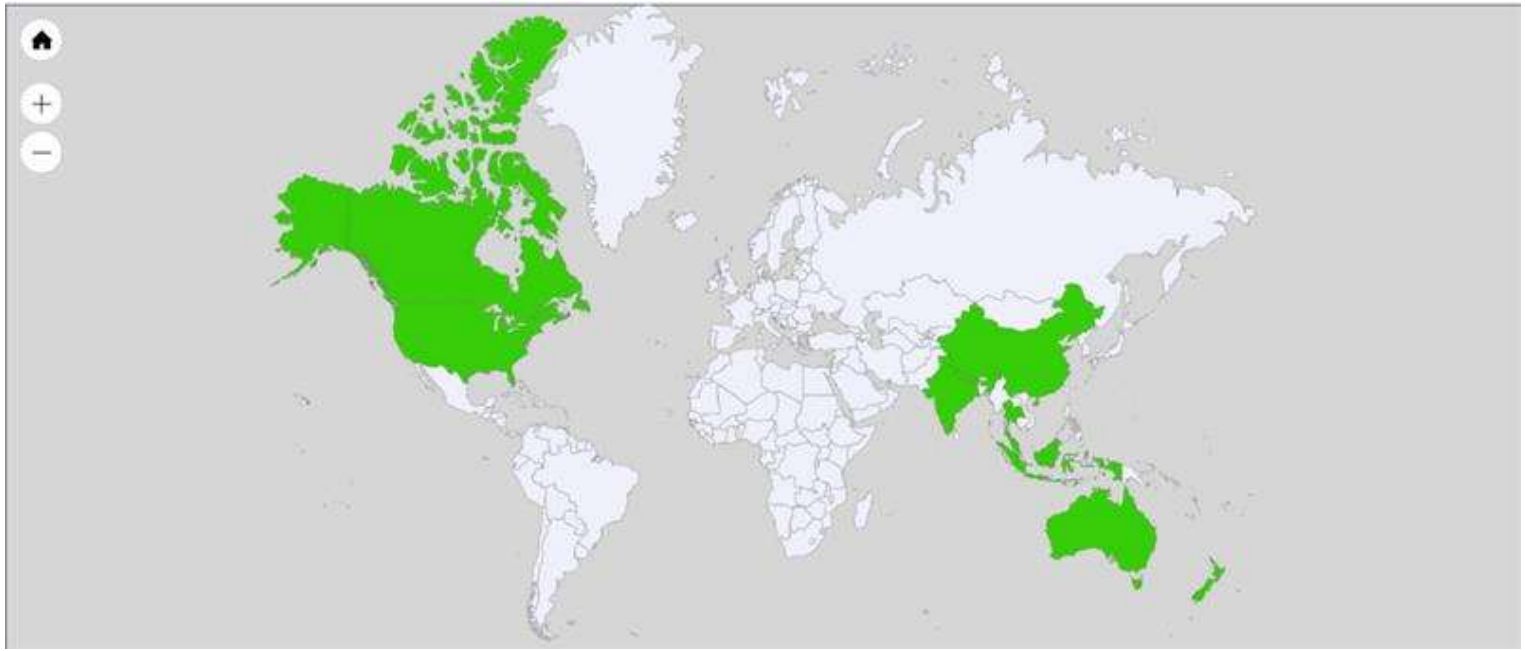
- A, B C represent search terms/keywords
- Numbers 1-7 represent possible search results
- Using Boolean operators AND OR NOT and nesting (bracket), answer the following questions

Finished!



- A and B and C would retrieve?
  3
- A and (B or C) would retrieve?
  2+3+4
- (A or B) and C would retrieve?
  2+3+5
- A or (B and C) would retrieve?
  1+2+3+4+5
- What search would retrieve 6?
  B not (A or C)
- What search would retrieve 5?
  (B and C) not A

Participants from different countries



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2.2 Drop-in sessions

Drop-in sessions

- Scheduled after the online workshops as follow-up support
- Q & A session and the course coordinator also attended
- Students attended with questions from their own searching
- Covered information and specific resources tailored to the course assignment topic

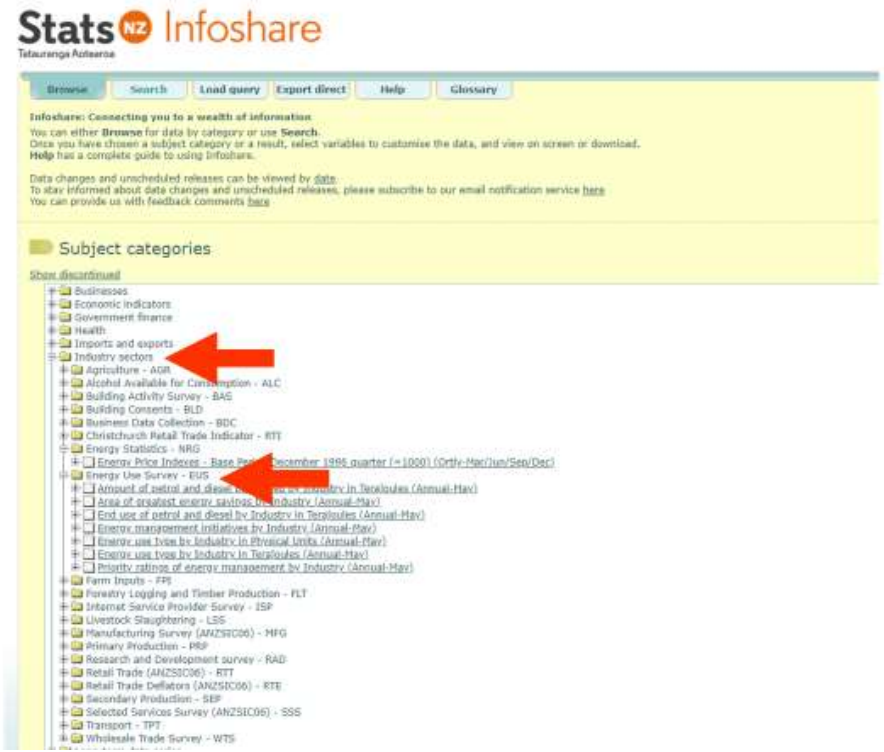
Example 1 of slides of the drop-in session for a course

Information sources for Energy 722 course assignment

- Library homepage and the Catalogue
- Library databases:

Scopus	OnePetro
Compendex	IGA Geothermal Conference Papers
ProQuest	GRC Geothermal Library
IEEExplore	OECD iLibrary
SpringerLink	StatsNZ; Inforshare
Web of Science	Energy & Power Source
ScienceDirect	Geobase
Google Scholar	Georef
Derwent Innovations Index	ScienceCinema

Example 2 of slides of the drop-in session for a course



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2.3 Research and study skill resources hub

Research and Study Skills Resources Hub in Canvas (LMS)

- Ongoing 24/7 support after the online workshops
- Available for all Engineering Postgraduate student in Canvas
- A good online resource for reviewing contents learned or self-taught

Research and Study Skill Resources Hub

Research and Study Skill Resources

1. Finding information

2. Referencing

3. Evaluating information

4. Research and Writing Skills for Engineering

5. More Research and Study Skills Resources

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Research and Writing Skills for Engineering

2.4 Feedback

Staff feedback

A quote from staff feedback –

"Kia ora Dahlia,

Just wanting to say a (belated) big 'thank you' for the time you put in to helping with EngGen 769. I think you sessions are really valuable. Many of these students haven't really had to have a good look at literature before so great that they get some useful tips on how to find what they need, and evaluate it. And great that your sessions are opened up to others who can also benefit – it is quite a bit more work from an admin point of view to make sure that everyone is catered for but well worth the effort I think for good learning experience."

Student feedback

- Student feedback was received through the course evaluation report
- Students found the library workshops were one aspect that was most helpful for their learning

e.g.,
"I have learnt about how the journal paper will be, where it is available, what is literature review and how it will present and got more knowledge on library learning service and their database i.e., Scopus, Google Scholar, ScienceDirect".

3. Discussion & Conclusion

Discussion & Conclusion

- The Covid-19 pandemic provided the opportunity for the transformation to a triple–blended eLearning model
- Collaboration with Faculty staff is the key to the success
- The new delivery model has made our services more sustainable and scalable

4. Next steps

Next steps

- Evaluating the tripled-blended eLearning model
- Making the access to the Research and Study skill Research Hub more open
- Covering search examples for specific information such as standards and patent information in the online workshops

5. References

References

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Questions?

Thank you!