

Developing an Innovative Trans-National Education Approach to the Teaching of Natural Products Chemistry

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Materials

10 minute bite-sized revision videos
Male and Female voices
English text and voice
Vietnamese text and voice
English text and Vietnamese voice
Vietnamese text and English voice

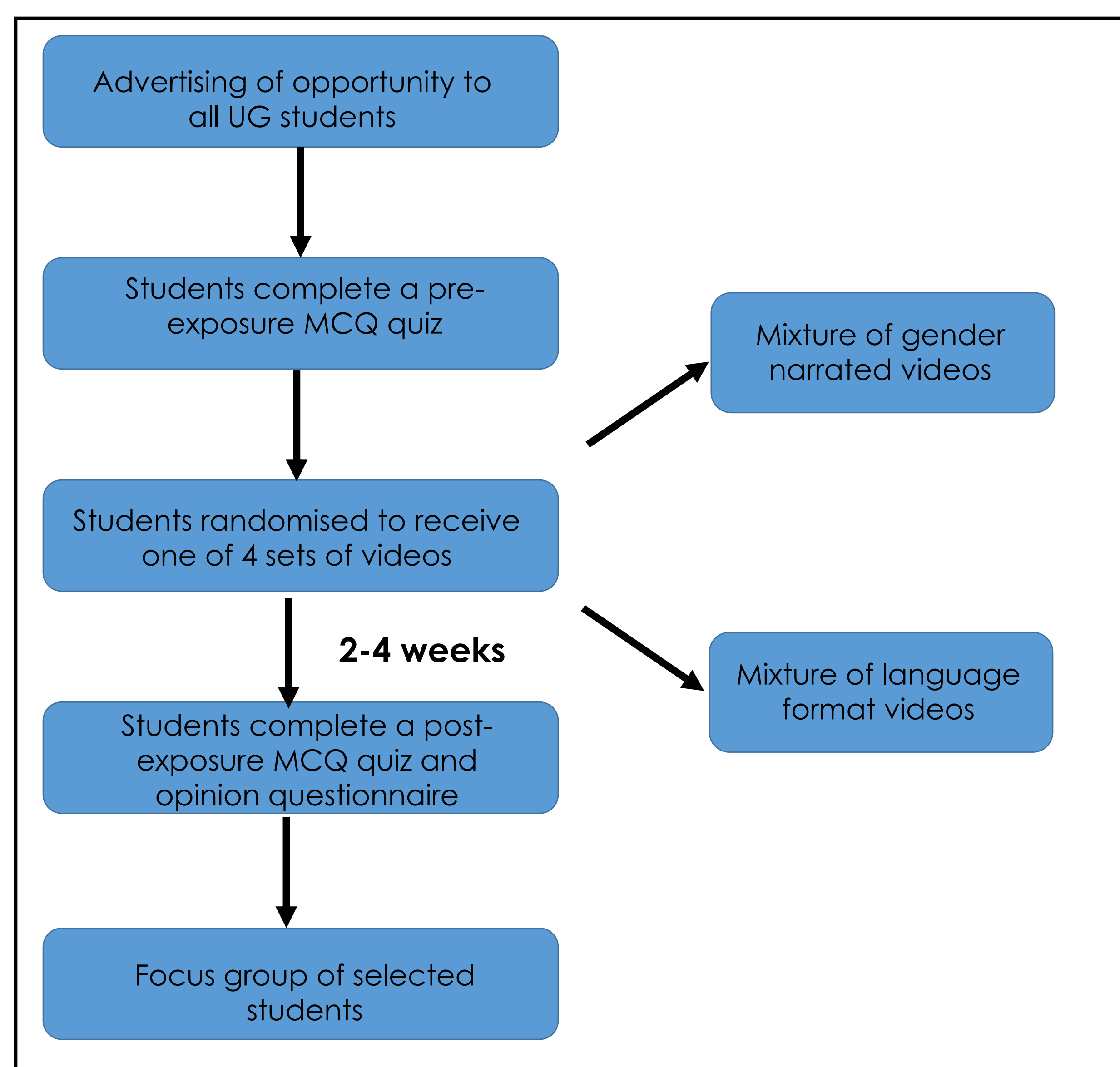
Phase 1

4 pharmacognosy videos
5 natural products chemistry videos

Phase 2

8 analytical videos
5 organic chemistry videos
4 pharmacology videos
2 pharmaceuticals videos

Method

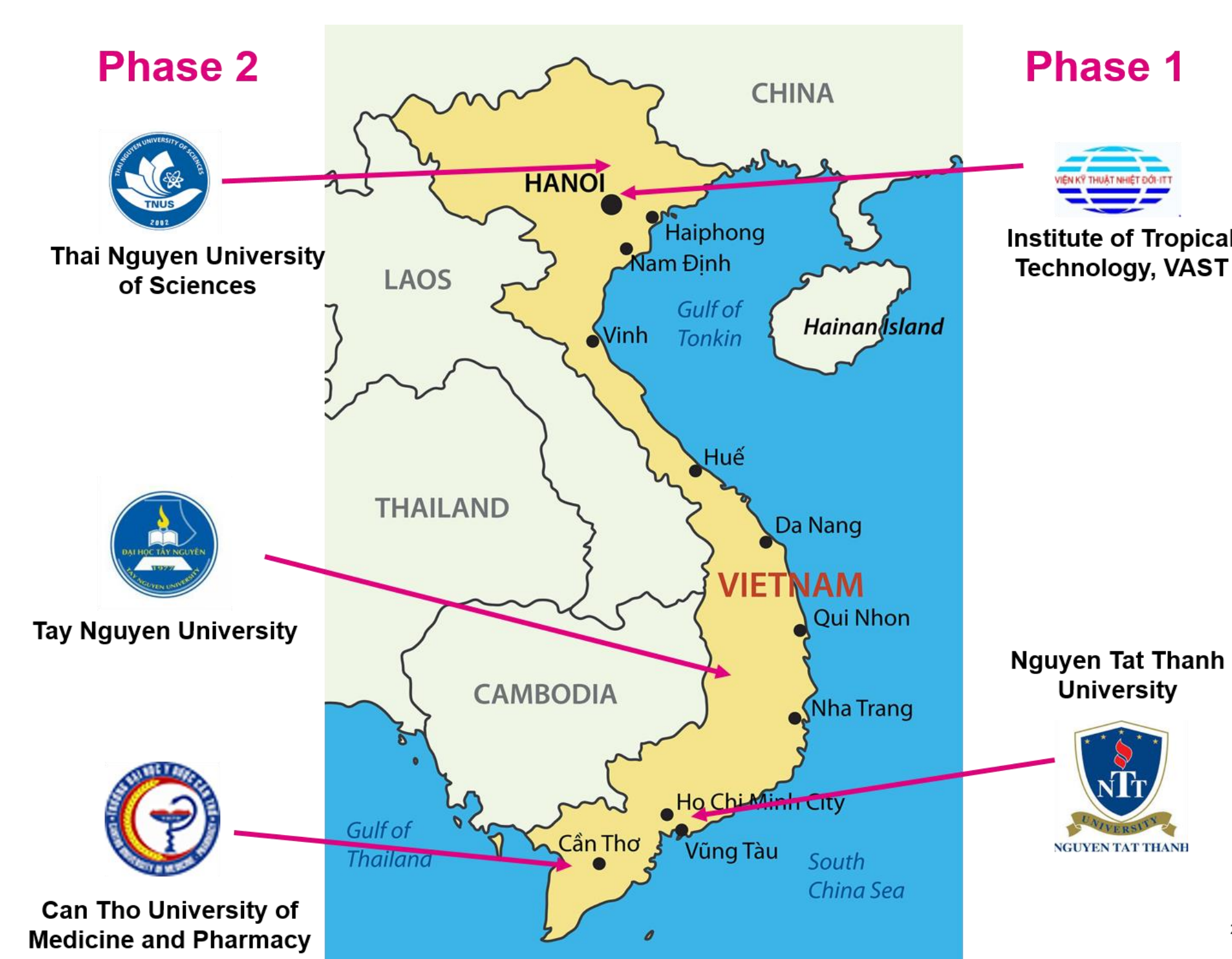


Aims

- 1) Preparation of open source multi-lingual digital materials to support chemistry teaching in Pharmacy degrees.
- 2) Analysis of incorporation into established teaching programmes and design and in the development of new specific short courses UK and Vietnam.
- 3) Evaluation of the learning gain achieved by students across UK and Vietnamese cohorts.
- 4) Training of academics from across Vietnam in active learning techniques and pedagogical research techniques through workshops and exchanges

Background

Consortium of six universities (5 Vietnamese, 1 UK)
1 Research only university
5 Research and teaching universities
3 Schools of Pharmacy, 1 School of Medicine, 1 School of Chemistry
Spread throughout Vietnam; Urban, rural and disadvantaged



Acknowledgments

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Preliminary Results

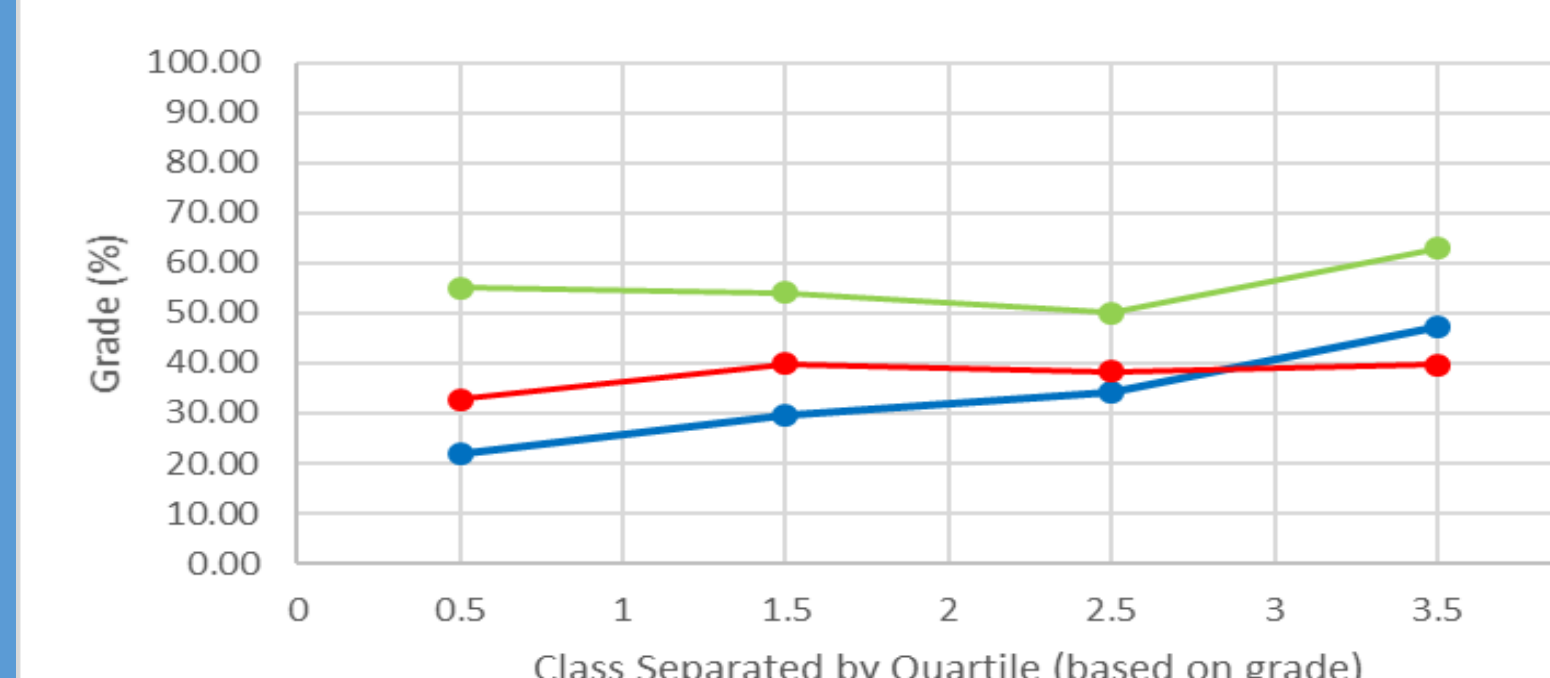
Evaluation of these resources has focussed on learning gain and student perceptions of the resources

MCQ enables students to assess their confidence in their answers.

Students additionally predict their attainment

Answer Sheet for Hand Scoring					
Name	John Smith Team 3				
Q.#	A	B	C	D	pts.
1	4				4
2			2	2	2
3			3	1	3
4	1	1	1	1	1
5	2	1	1		2
6				4	4
Total Points					16

Plot of Confidence, Grade and Predicted Grade for UK-VN Pre-Test 1 2019

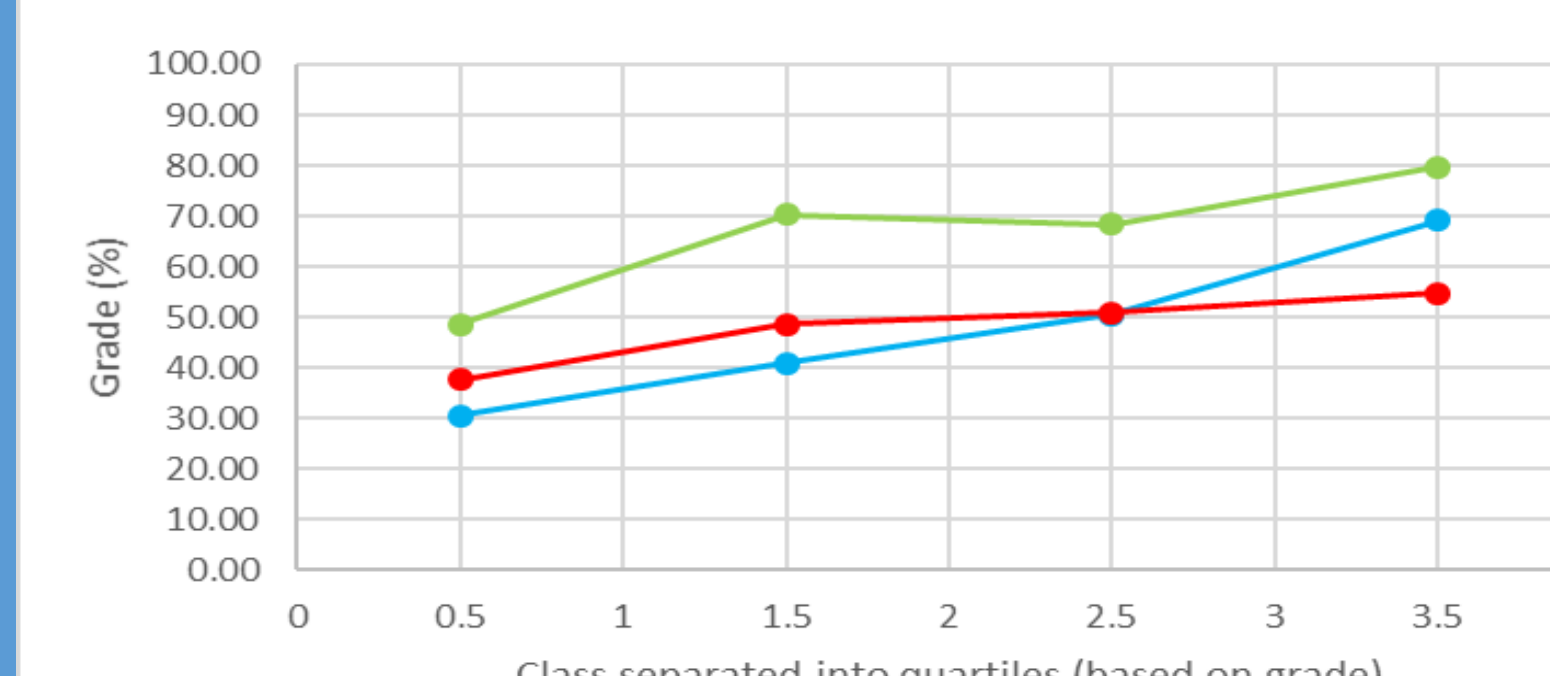


Pre-exposure test

Data fits a classic Dunning-Kruger Pattern

RED = Predicted Grade
Blue = Actual Grade
Green = Calculated grade from answer strategy

Plot of Confidence, Grade and Predicted Grade for UK-VN Post-test 1 2019



Post-exposure test

Calibration improves in the lower performing quartile

Key Themes: from qualitative analysis in UK

- Students thought videos were beneficial, engaging and helped retention of info (doesn't correlate to test scores)
- Lower tone of male voice mentioned as a positive
- Higher tone of female voice mentioned as more engaging
- Overall no preference for male vs female
- Pace of the videos is very important
- More interactivity requested