



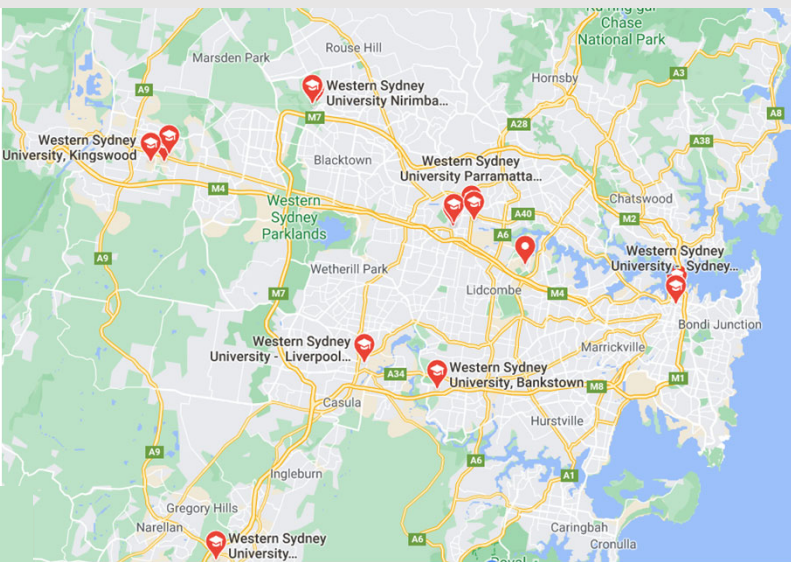
Mathematics and Statistics Support – Proceeding past Pandemic Panic

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Western Sydney University Mathematics Education Support Hub



WSU: Approx. 50,000 students, 79% undergraduates (2019).

- Multi-campus with many services and degrees (Bachelors and Masters) available on some or all campuses.
- Secondary school maths is not a prerequisite.
- MSS staff for over 25 years

In 2011 **MESH** was created.

11 part or full-time tutors –

‘dedicated staff’ (Lawson *et al*, 2020)

Drop-in support at 6 libraries, 1 tutor per library.

Online discussion board, ‘I don’t get it’.

Workshops for: first-years pre-university, exam preparation, and particular disciplines (e.g. nursing). Workshops generally run during semesters and during study breaks.



From 18th March, 2020 all MESH services were on Zoom

Drop in = Zoom room with 2 MESH tutors on weekdays from 10 am-2 pm.

University College Dublin Maths Support Centre



UCD: 32,000 students, 67% undergraduates

Since 2004:

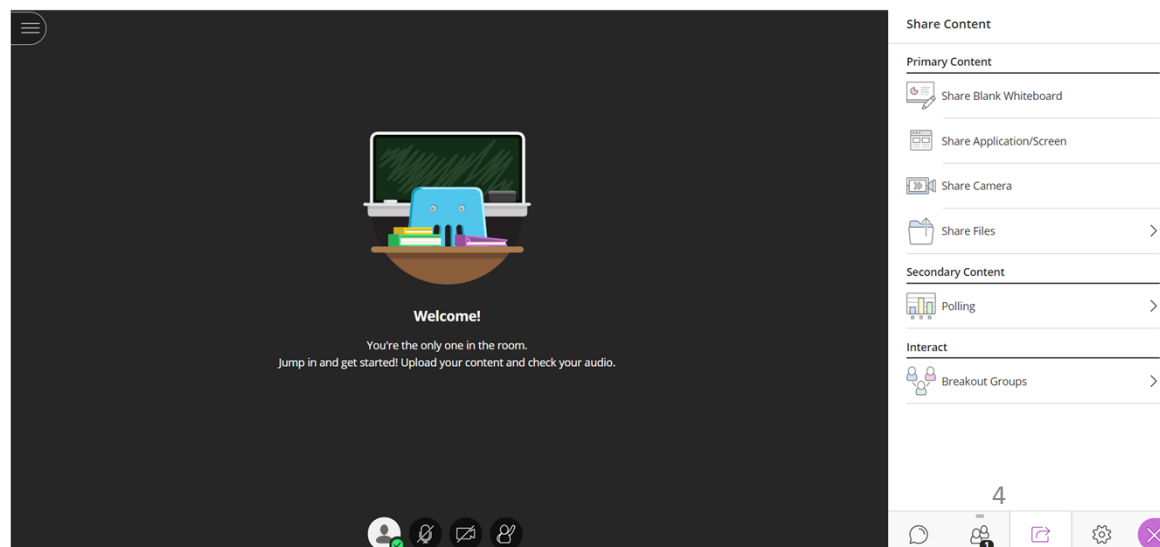
- 1 drop-in maths support centre (MSC) in the main library open approx. 40 hours a week
- Approx. 20 part time postgraduate tutors
- 2-5 tutors per shift.
- 1st and 2nd year students from both service and specialist mathematics modules

From March 23rd, 2020:

- Booked virtual support using Brightspace Virtual Classroom
- 30 minute appointments 10am-6pm
- 2 tutors per shift

Since January 2021:

- Zoom also used
- 60 minute appointments also available



Research Questions

1. What are the issues common to an Australian and an Irish university, from both the student and tutor perspective during the COVID-19 era, pertaining to the use and future of online MSS?
2. What were the effects of the rapid change to fully online MSS on pedagogy and interactions among tutors and students?

Participants

7 WSU Students

5 first-years, 2 second-years, all service mathematics courses

1 first-year and 1 second-year had used on-campus support

6 UCD Students

3 first-year and 3 second-year students, mix of specialist and service mathematics courses

1 second-year had used on-campus support

4 WSU Tutors

Dedicated tutors, 3 have post graduate qualifications

All have at least 2 years experience, 3 have 5+ years experience

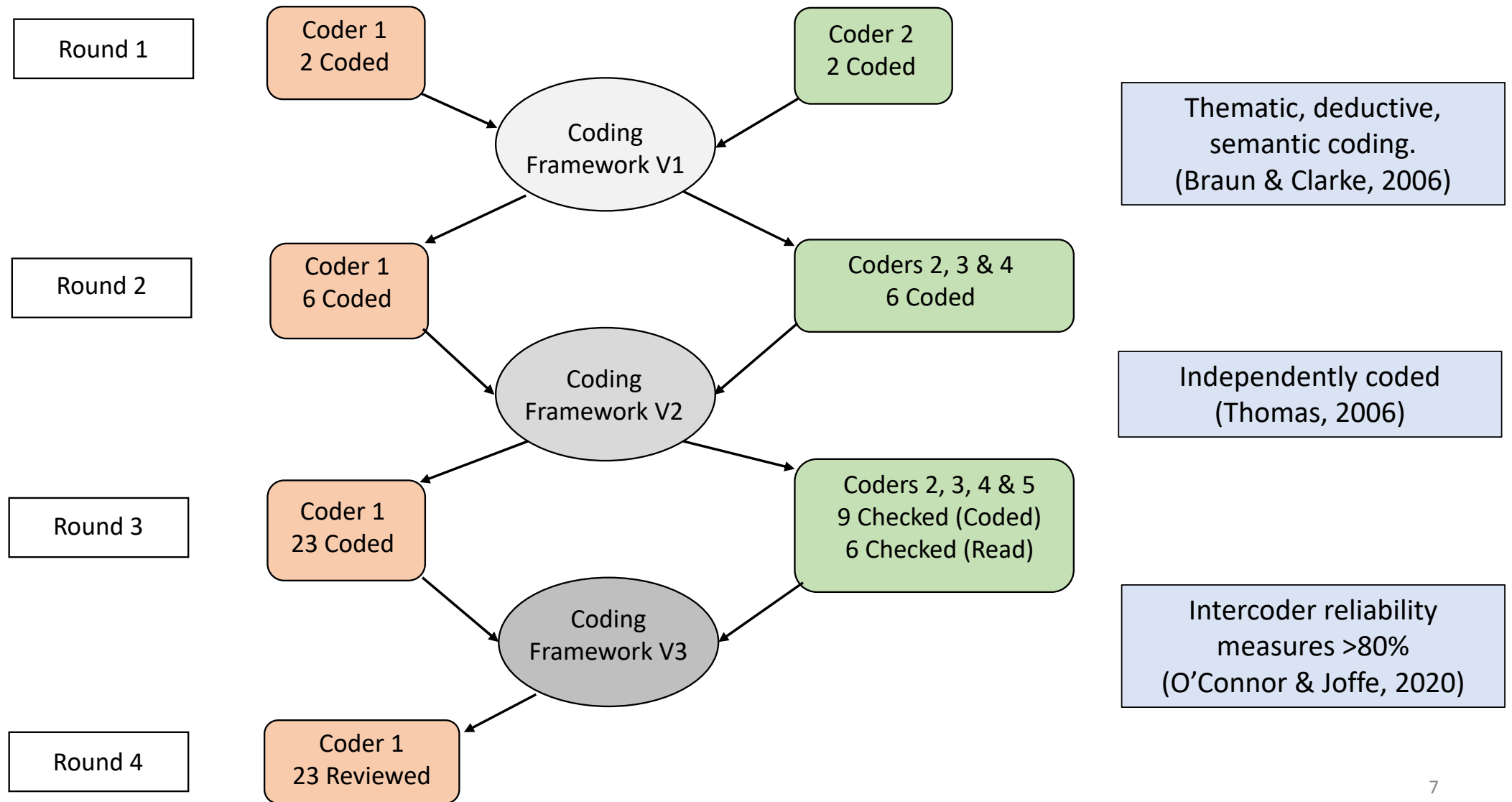
6 UCD Tutors

5 post graduate students, 1 lecturer/tutor

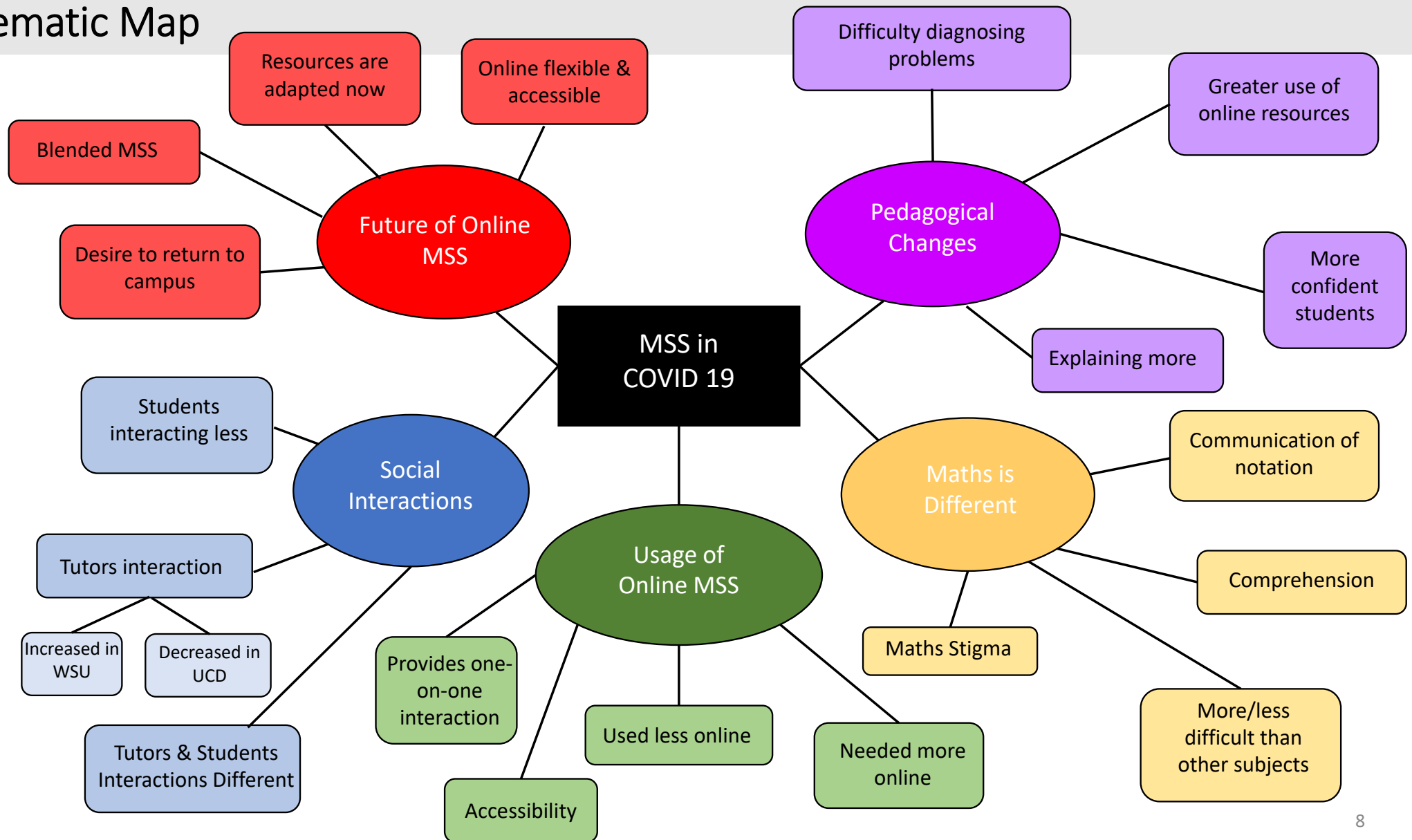
Between 3 and 7 semesters experience, several years experience

Participants recruited via email (890 MESH users, 397 MSC users, 11 WSU tutors, 15 UCD tutors). Convenience sample, diverse in makeup based on course, gender and school leavers/mature students.

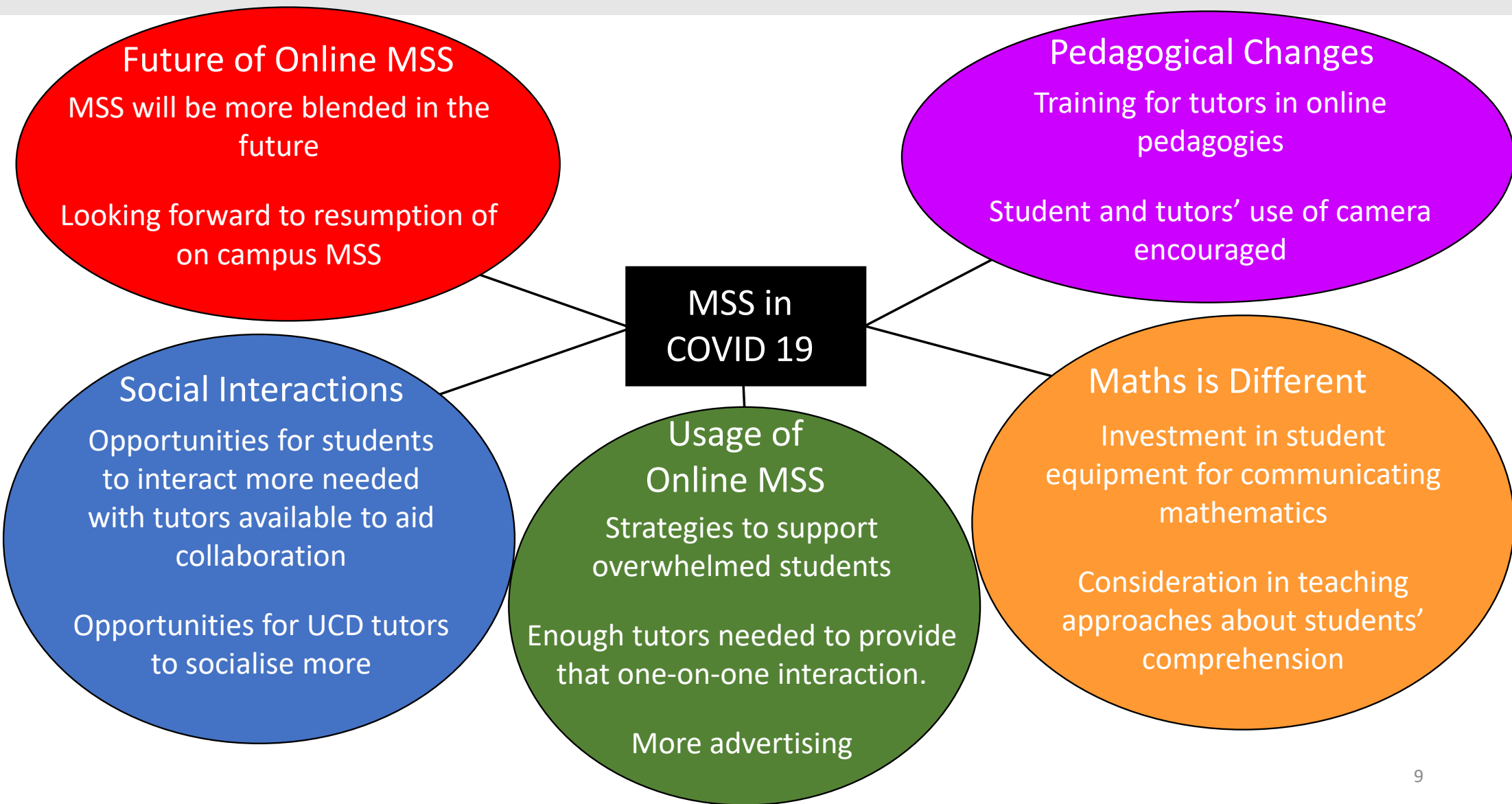
Thematic Coding



Thematic Map



Discussion



Forthcoming publications (hopefully...)

- Mullen, C., Pettigrew, J., Cronin, A., Rylands, L., Shearman, D. (2021) Mathematics Support in the time of COVID-19: Students' and tutors' perspectives from two countries. *Teaching Mathematics and Its Applications*, Special Issue Restarting the New Normal. (Submitted)
- Mullen, C., Pettigrew, J., Cronin, A., Rylands, L., Shearman, D. (2021) The rapid move to online mathematics support: changes in pedagogy and social interaction. *International Journal of Mathematical Education in Science and Technology: Herenga Delta 2021*, for the 13th Southern Hemisphere Conference on the Teaching and Learning of Undergraduate Mathematics and Statistics. (Submitted)