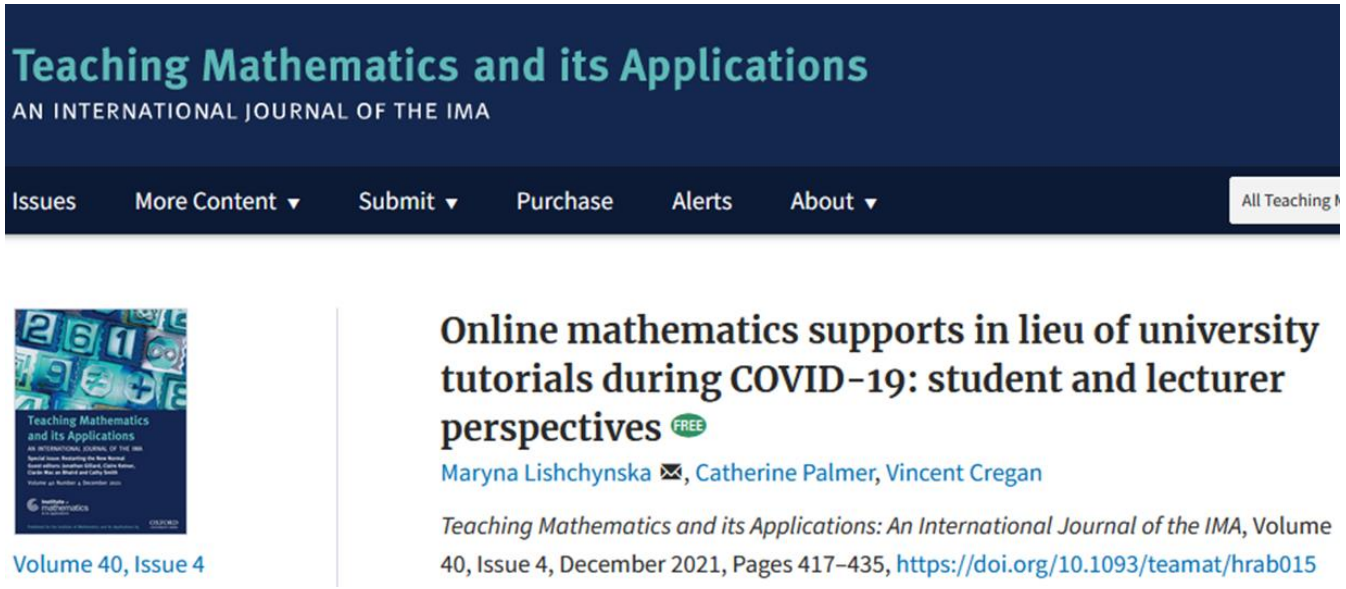
Online mathematics supports in lieu of university tutorials during COVID-19: student and lecturer perspectives

Maryna Lishchynska, Catherine Palmer, Vincent Cregan

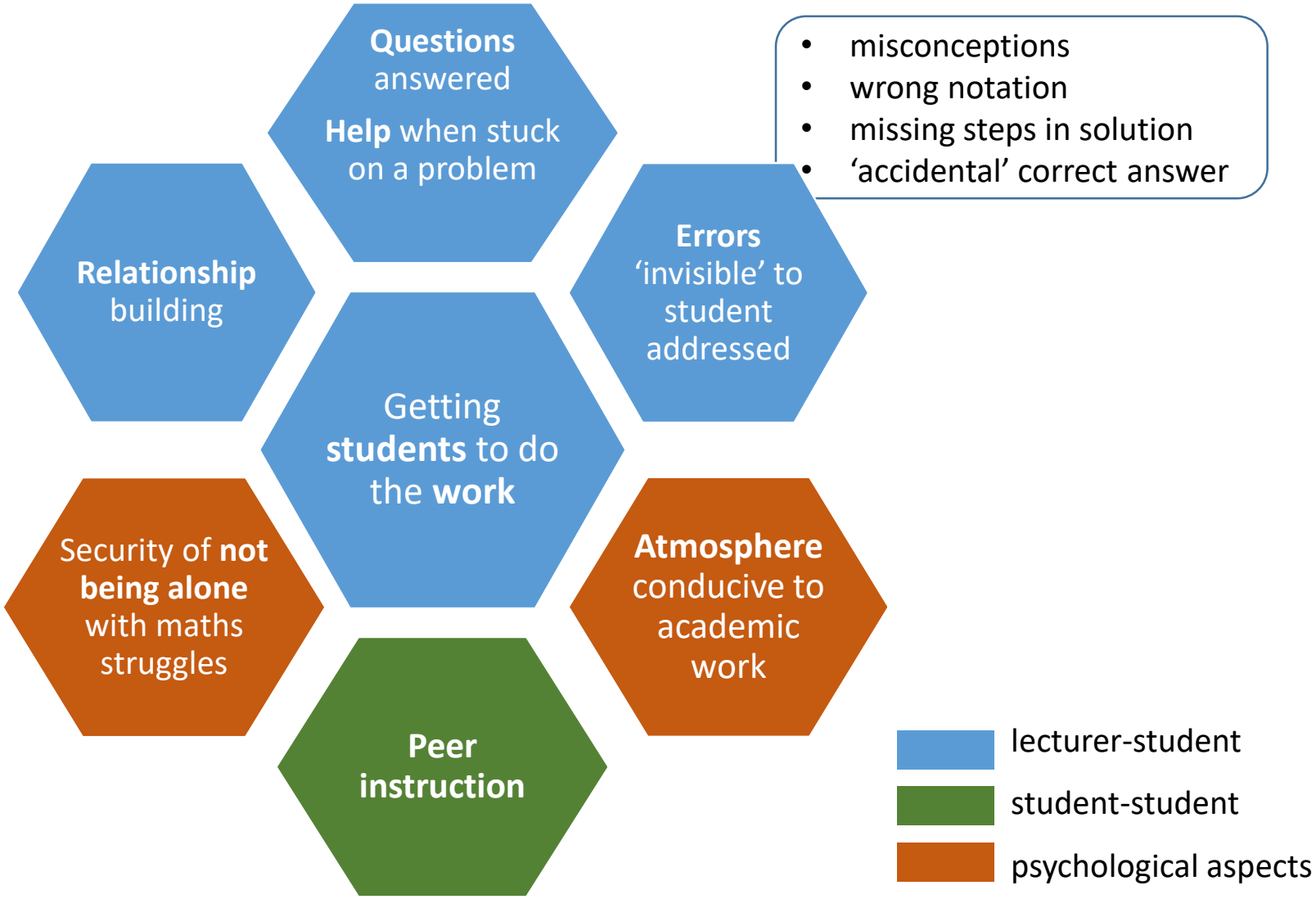
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Tutorial dissected: affordances of a traditional in-class tutorial

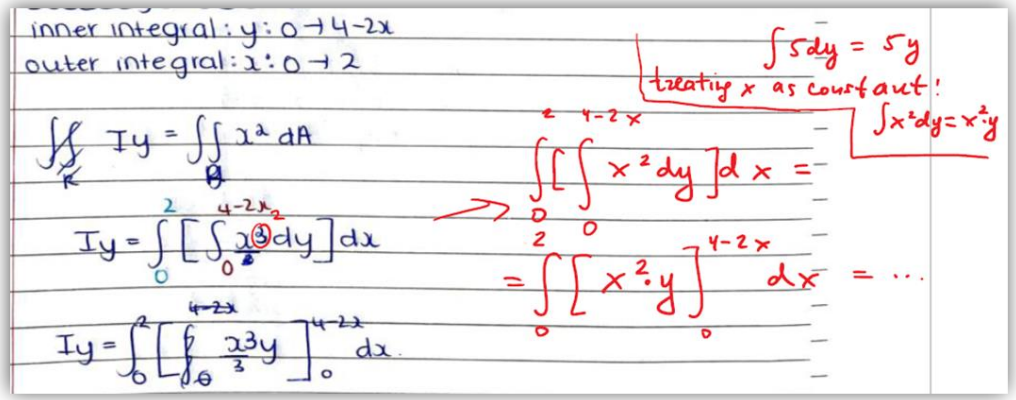


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Approaches we used



- Live tutorials in Zoom
- Written homework with individual feedback
- Group work via breakout rooms in Zoom
- Discussion forum in Canvas
- Formative assessment with feedback:
  - *ungraded* Canvas quizzes
  - *graded* Numbas tutorials





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Research questions

RQ1. How well do remote support formats address the affordances of traditional in-person tutorials?

RQ2. What are the positive/negative aspects, from both **students' and lecturers' perspectives**, of various formats of remote support in service mathematics modules?

	Live tutorials	Homework with individual feedback	Group tutorial work via breakout rooms	Discussions on Canvas
Getting students to work	√	√	√	
Questions answered; help when stuck on a problem	√	√	√	√
Relationship building	√	To some degree	√	
Addressing 'invisible' errors		√		
Peer instruction			√	√
Atmosphere conducive to learning				
Security of not being alone with mathematics struggles	√	√	√	

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Research questions

RQ1. How well do remote support formats address the affordances of traditional in-person tutorials?

RQ2. What are the positive/negative aspects, from both **students' and lecturers' perspectives**, of various formats of remote support in service mathematics modules?



+ chance to work on questions 'live' with the lecturer
+ *"ability to interact with lecturer one on one"*
+ *"I enjoyed the break out rooms as well because it forced us to interact, talk about labs, questions"*



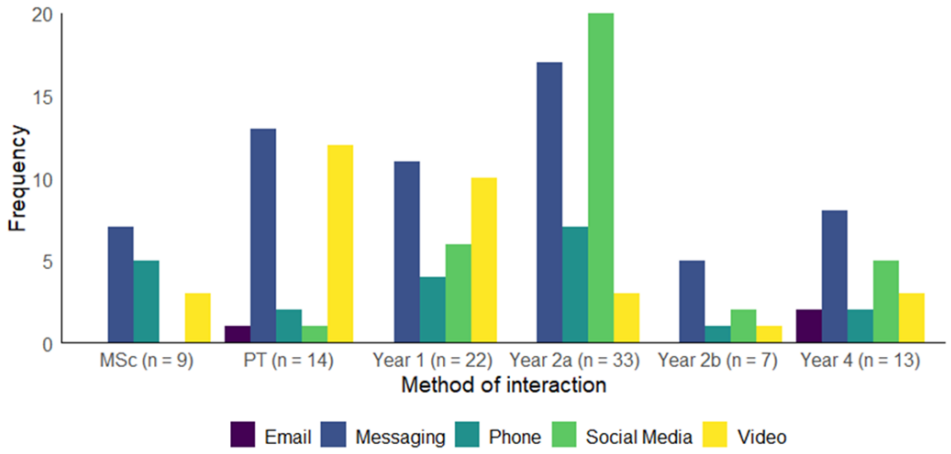
– missing the guidance of the lecturer and the opportunity to hear other students' questions
– *"I did not find any use in the break out rooms with other students, it was a bit of blind leading blind situation, we already ask each other questions if we need to via WhatsApp"*

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Research questions

RQ3. What is the role of **formative feedback** in the absence of in-person tutorials and what works well in a remote setup?

RQ4. How did **students interact** with each other when learning mathematics online?



Only some student cohorts were offered **live tutorials** and only one group availed of **homework with feedback**

BUT

respondents in **all cohorts** ranked these tutorial formats the highest.

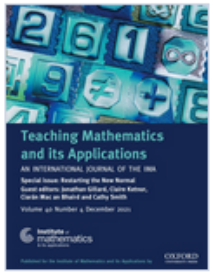
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More detail in the paper and also …

- main ‘takeaways’
- practical points to consider when deciding on a strategy for remote delivery

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