

Changes to Teaching and Assessment post covid-19

Page 1: Introduction

Purpose of Survey

In 2020 a survey was conducted to explore how departments of mathematical sciences had adjusted their teaching and learning response in light of the onset of the Covid-19 pandemic ([Henley et al, 2022](#)). In this follow-up work, we are seeking to explore whether there exists a legacy for those changes and whether teaching practices and approaches first introduced during the pandemic will remain part of the learning experience for students within the mathematical sciences.

Structure of survey

The survey is split into 8 sections and should take approximately 30 minutes to answer. Please answer all questions as fully and honestly as you can or please forward on to an appropriate colleague within your department. Where the opportunity is given, the research would benefit from further explanation of your responses and thoughts.

When you have completed the survey, please do not forget to click the 'Finish' button to ensure it is submitted.

Data use and retention

The data and information collected will not be in any way attributed to you or your university as we are seeking to identify common themes and approaches. Whilst we are asking for the name of your institution, this is for the sole purpose of being able to collate and track responses, particularly as the distribution method might mean multiple responses are received from different individuals within the same School or Department. Responses will contribute to an ongoing project of educational research to explore the Covid-19 related changes being made to programmes of study in the mathematical sciences at university-level across the country with general findings being shared more widely. The research may include the publication of academic reports and published papers, however, all information contained within these will be entirely anonymous - you will not be identifiable as an individual or an institution.

There will be the opportunity to provide your email address should you be willing for us to contact you with any further questions we might have about your responses. Your email address will only be used for this contact purpose and not used to identify you or your institution in any way. In accordance with the UK Data protection act (2018), as amended, raw and processed data from this investigation will be kept for a period of ten years following completion of the study on 31/10/2023. Questionnaires and computer files containing processed data will be stored securely on the OU STEM-dfs server and will only be accessed by the study investigators (the Project Team). After this time period, all data collected will be destroyed. You can withdraw at any time during completing the questionnaire by closing the browser. If, after submitting your response, you decide you wish to withdraw your participation in this survey, you may do so by contacting Rachel Hilliam (rachel.hilliam@open.ac.uk) at any point until the data are anonymised.

If you have any queries about this questionnaire please contact Rachel Hilliam (rachel.hilliam@open.ac.uk) who is part of the research team, or for any concerns please contact Stefanie Biedermann (Stefanie.Biedermann@open.ac.uk) who is independent from the research team.

Page 2: Section A: Background

1. Your Name:

2. Institution and School/Department Name:

3. In what capacity are you responding to this survey?

- Head of a School or Department of Mathematics
- Director of Teaching/Studies (or similar)
- Other

3.a. If you selected Other, please specify:

4. If you are happy to be contacted again as part of any research-based follow-on to this survey, including any further questions we may have, please indicate so below and please provide your email address in Question 6:

5. If you would like to receive a summary of the findings from this work, please indicate so here and please provide your email address in Question 6 below:

6. Email address:

Please enter a valid email address.

Page 3: Section B: Institutional Teaching Strategies and Requirements

The information below is requested to provide an appropriate background context to this study relating to any institutional policies or requirements that were first introduced in response to the pandemic and whether any continued adjustments remained in place through to 2022/23.

When answering questions 7-12 please report on institutional policies. Mathematics specific approaches you have implemented without your School or Department will be explored later in this survey.

Please note, where we refer to on-campus provision throughout this survey, we mean in-person face-to-face sessions with staff and students both present.

Section B1: Arrangements for 2020/21 and 2021/22

7. In response to the onset of the pandemic in March 2020, and relating to both the 2020/21 and 2021/22 academic years, did your institution introduce:

	Optional				
	Yes, which we were required to implement in full	Yes, but we were allowed flexibility in its implementation	There existed no institutional policy or guidance	Don't know	Not applicable
A1). An institutional policy relating to teaching delivery arrangements of lectures in 2020/21?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A2). An institutional policy relating to teaching delivery arrangements of lectures in 2021/22?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B1). An institutional policy relating to teaching delivery arrangements of small group classes in 2020/21?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B2). An institutional policy relating to teaching delivery arrangements of small group classes in 2021/22?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C1). An institutional policy describing exam or assessment arrangements in 2020/2021?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

C2). An institutional policy describing exam or assessment arrangements in 2021/22?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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8. If you have indicated an institutional policy in relation to teaching delivery arrangements of lectures in either 2020/21 and/or 2021/22 was introduced, please briefly describe what it required here.

<input type="text"/>

9. If you have indicated an institutional policy in relation to teaching delivery arrangements of small group classes in either 2020/21 and/or 2021/22 was introduced, please briefly describe what it required here.

<input type="text"/>

10. If you have indicated an institutional policy describing exam or assessment arrangements in either 2020/21 and/or 2021/22 was introduced, please briefly describe what it required here.

<input type="text"/>

Section B2: Arrangements for 2022/23

Considering now teaching delivery and assessment in 2022/23:

11. Please state the implications of any institutional policies which affect teaching, learning, assessment and student support in your school or department in 2022/23 which are a legacy of changes made to policies due to covid-19.

	Implications
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Large group tuition (eg lectures)	
Small group tuition (eg tutorials, example classes, etc)	
Format of assessments (eg pen and paper exam, online exam, non-exam assessments)	
Rules regarding assessment (eg deferrals, resits)	
Student regulations	
Other	

12. If new policies for teaching delivery and assessment were introduced for 2022/23, please describe any differences or similarities these new policies have with any policies that were in place pre- and during the pandemic.

	Differences or similarities (pre-pandemic)	Differences or similarities (during pandemic)
Large group tuition (eg lectures)		
Small group tuition (eg tutorials, example classes, etc)		
Format of assessments (eg pen and paper exam, online exam, non-exam assessments)		

Rules regarding assessment (eg deferrals, resits)		
Student regulations		
Other		

Page 4: Section C: Delivery Arrangements for Mathematical Content

The questions that follow are concerned with the approach your department took to delivering new mathematical taught content to students, together with your arrangements for providing opportunities for students to consolidate their mathematical learning based upon the taught content.

13. Please indicate to what extent you used each of the following methods of delivering new mathematical content to learners **this academic year, 2022/23**.

	We do not use at all	Some modules use	Most modules use	All modules use	Alternative please expand below
Live in-person lectures delivered face-to-face	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Live lectures delivered synchronously online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Release of pre-recorded lectures and lecture-based material that was primarily recorded in a previous academic year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Release of pre-recorded lecture-based material but recorded specifically for this 2022/23 academic year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provision of asynchronous material (eg lecture notes).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13.a. If you use alternative or additional approaches, please provide brief details here:

14. When delivering **new content** online, are there particular pedagogic challenges you have identified and overcome and/or any strategies which you have tried which have not worked? Please give details below.

15. Please provide details of how you are planning to provide other typical mathematical teaching sessions in 2022/23.

[+ More info](#)

	Face-to-face and in-person only	Online only	Blended approach	Hybrid approach	Other (please specify)
Problem or example classes and/or module-based tutorials (Opportunities for students to consolidate and practise their mathematical learning)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Non-module related tutorials (Regular meetings, between a small group of students and a designated academic tutor for them to discuss either academic matters not associated with a particular module or pastoral issues)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>

Computer Laboratories	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Workshops (Students collaborating on group-based tasks or exercises)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other (please expand below)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

15.a. If you are planning other types of mathematical support sessions please expand below.

16. Is your approach to delivering these sessions in 2022/23 in any way informed by your experience of delivering similar sessions during the pandemic? If so, how did the pandemic experience inform your proposed approach in 2022/23?

17. Please add any other comments on teaching approaches for 2022/23 whether online or face-to-face.

Page 5: Section D: Examinations and Assessments

The following section is concerned with your arrangements for end of module or end of year examinations and any continually assessed components (both formative and summative). Please answer for the undergraduate mathematical sciences degree with the largest student numbers.

D1: Continuous Assessment

18. Describe any changes you have made, following on from pandemic practices, to the number of coursework-only based modules that were available to your students in 2022/23.

19. Describe any changes you have made to the overall contribution or weighting of continually assessed components towards the final mark for modules that would have been assessed predominantly by a final examination prior to pandemic practices.

20. For modules in which continuous assessment counts towards the final grade, have you made any changes in the assessment activities following on from pandemic practices? This could include for example how long students have to complete them, the pedagogic design of the questions or activities, the timing of the activities, the numbers or type of activities, etc.

D2: Examinations

21. For modules where the predominant form of assessment is a final written examination, will these assessments be (please check all that apply):

- Invigilated
- Fully closed book (only materials in the examination room)
- Fully open book (students may consult material)
- Partially open book (students may use a limited range of material)
- Hand-written examination (completed face-to-face or uploaded)
- Computerised test

21.a. Was the invigilated assessment:

22. Has your examination practice changed since the pandemic?

- Yes
- No
- Partially

22.a. Please expand

23. Are you running online examinations in 2022/23?

- Yes
- No

23.a. Briefly describe the arrangements for invigilation

23.b. Briefly describe the arrangements for computer based assessment or uploading handwritten scripts

23.c. Briefly describe the arrangements for the length and timing of the examination

24. If you have introduced online examinations since the pandemic, have you made any pedagogic changes to them (for example in the structure or type of questions, or in the role of bookwork etc)?

25. Where you are running face-to-face examinations, have you made any adjustments to how these operate following your experience during the pandemic? For example, allowing students to use reference materials to support them in completing the examination.

D3: Plagiarism and collusion

26. During the pandemic, did your department experience instances of plagiarism, collusion or contract cheating amongst students in relation to:

- Continuous assessment
- Examinations
- Dissertations and projects

26.a. Please briefly describe your experience, including the scale of the problem

26.b. Please briefly describe any measures that were introduced to identify and/or reduce the opportunities for plagiarism and collusion.

27. Is plagiarism, collusion or contract cheating (the act of paying another individual to complete work on your behalf) a concern for your department in the 2022/23 academic year?

27.a. Please expand

27.b. Are there new approaches or practices to mitigating against these that you will introduce in 2023/24?

D4 Further information

28. Please comments on any other assessment related issue.

Page 6: Section E: General challenges for students

This section concerns more general challenges that students might have faced during pandemic-related teaching and the implications that these may now have for their mathematical studies in 2022/23.

29. Here are some areas where students might have experienced challenges during the pandemic. Please indicate which you identified, any actions you took to address them and your assessment of how effective these actions were.

	Tick to identify	Discuss actions
Transition to university	<input type="radio"/>	
Isolation	<input type="radio"/>	
Accessing peer support	<input type="radio"/>	
Accessing on-campus support	<input type="radio"/>	
Accessing online support	<input type="radio"/>	
Availability/presence of lecturers and teaching staff	<input type="radio"/>	
Possessing resources to engage with studies (eg broadband, computer, etc)	<input type="radio"/>	
Use of online/recorded sessions in place of synchronous sessions	<input type="radio"/>	
Engagement with assessment components (either formative or summative)	<input type="radio"/>	

Sense of belonging to the student community	<input type="radio"/>	
Academic resilience	<input type="radio"/>	
Accessing mathematics related extracurricular activities	<input type="radio"/>	
Accessing support from students in other years (ie mentors)	<input type="radio"/>	
Other (please state)	<input type="radio"/>	

29.a. If you wish to expand your answers further, please do so here:

Page 7: Section F: Miscellaneous

30. Please detail here any other challenges that you identified during pandemic-related delivery in relation to any aspect of teaching, learning, assessment and support and arrangements that have not already been discussed.

30.a. If you answered the above, what measures did you put in place during 2022/23 as a consequence?

31. Are there any areas where your department would welcome advice and guidance from the mathematical sciences community to address challenges associated with aspects of teaching, learning, assessment, and support as we move into a post-pandemic learning and teaching environment?

Page 8: Thank you

You are reaching the end of the survey, please ensure you click the finish button to submit your answers.

Thank you for completing this questionnaire; your responses are appreciated and will help the mathematical sciences community better understand the impact and legacy of changes to teaching and learning practices first introduced during the pandemic.

Key for selection options

4 - If you are happy to be contacted again as part of any research-based follow-on to this survey, including any further questions we may have, please indicate so below and please provide your email address in Question 6:

Yes, I am happy to be contacted with further questions

No, I would prefer not to be contacted with further questions

5 - If you would like to receive a summary of the findings from this work, please indicate so here and please provide your email address in Question 6 below:

Yes, I would like to receive a summary of the findings from this work

No thank you, I don't a summary of the finding

21.a - Was the invigilated assessment:

Face to Face

Online

27 - Is plagiarism, collusion or contract cheating (the act of paying another individual to complete work on your behalf) a concern for your department in the 2022/23 academic year?

No real concern

Minor concern

Significant concern
