Imperial College London

Student Staff Liaison Group (Phase 1) Date: Wednesday 19 May 2021 Start Time: 14:30 Location: MS Teams

Agenda item		Lead	<u>Paper</u>
1.	Welcome & Apologies for Absence	Chair	
2.	Unconfirmed Minutes of last meeting	Chair	SSLG-PO 2021-12
3.	Phase 1a Student Feedback reports	ICSMSU Academic Officer And Year Reps	SSLG-PO 2021-13
4.	Phase 1b Student Feedback reports	ICSMSU Academic Officer And Year Reps	SSLG-PO 2021-14
5.	Wellbeing reports (Phase 1a and Year 2)	Vice Chair of Wellbeing	SSLG-PO 2021-15
6.	A.O.B	Chair	

Please send apologies to feo.years1-2@imperial.ac.uk

Imperial College London

Staff Student Liaison Group (Phase 1a and Phase 1b)

Unconfirmed Minutes of Meeting held on Wednesday 17 February 2021

Present:

Mr Rayyan Ali, Ms Defne Artun, Dr Ana Baptista, Ms Yasmin Baker, Ms Fran Bertolini, Ms Trisha Brown, Dr Andy Childs, Ms Varja Čučulović, Dr Joana Dos Santos, Mr Robson Dos Santos, Ms Alice Edwards, Dr Mike Emerson, Ms Lilia Evans, Ms Labbie Farrell (Secretary), Ms Jen Grote, Dr Omid Halse, Mr Chris Harris, Dr Chris Harvey, Mr Safeer-Ui Islam, Dr Chris John, Ms Lesa Kearney, Dr Paul Kemp, Ms Rachel Kwok, Prof Mary Morrell, Dr James Moss, Dr Elizabeth Muir, Mr Muntaha Naeem (Chair), Prof Mark Nelson, Dr James Pease, Dr Richard Pinder, Ms Dorrit Pollard-Davey, Ms Vanessa Powell, Ms Mabel Prendergast, Mr Sahil Ravisangar, Dr Agata Sadza, Dr Sohag Saleh, Prof Amir Sam, Ms Janette Shiel, Ms Rebecca Sie, Ms Shamita Suresh, Ms Eleanor Taylor, Dr Viral Thakerar, Dr Maniccam Thavarajah, Dr Omar Usmani, Ms Natania Varshney, Ms Rachael Waddington.

Apologies:

Dr Anabel Varela Carver

. Terms of reference (SSLG-PO2021-06)				
1.1 that the new role of Welfare Officer had been added to the ToR				
2. Unconfirmed minutes of previous meeting (SSLG-PO2021-07)				
2.1. that the previous Minutes (SSLG-PO2021-07) were approved.2.2. that the action points had been completed or were in the process of completion.				
nd Phase 1b student feedback reports				
Phase 1a student feedback (SSLG-PO2021-09)				
Bio-regulatory Systems (BRS)				
 3.1. that as much interactivity as possible was appreciated in LOLs to keep students engaged. 3.2. that students felt Endo had a golden ratio of LOLs to GOLs and they would appreciate other modules introducing the same ratio as some were too heavy on one or the other. In general students prefer more LOLs than GOLs. 3.3. that students would also like more 'in practice' examples and more concise slides with explanations added in the notes section. 3.4. that in Neuro/Psych students would like more questions at the end but felt that having some GOLs replaced by LOLs was very useful Action: Reps to try to get separate feedback for Neuro and Psych in future. 3.5. that Endo had great feedback and students found the SBAs on Insendi very 				
 helpful. 3.6. that students would like more complex situations in Endo tutorials such as differential diagnoses to encourage more discussions between students and tutors. Reps were informed this would happen a lot more in Phase 1b. 3.7. that students would like to see an increase in the number of LOLs in MSK/Rheum with more questions in lectures and clear signposting of what does and does not need to be known for exams. 3.8. that students would like MSK/Rheum to include more SBAs and VSAQs in 				

3.9. that students really appreciated having F2F Anatomy sessions as it would be very difficult to study online.

Clinical Science and Integration (CSI)

- 3.10. that CSI feedback was largely positive as before. Students were happy their action point regarding pre-reading was implemented.
- 3.11. that students would like their tAPP feedback sooner as it would be more useful for them in the next case.
- 3.12. that there had been an issue with one of the cases but students found the subsequent document released really useful and appreciated the effort in resolving the issue.

Lifestyle, Medicine and Prevention (LMAP)

- 3.13. that LMAP feedback was largely positive, the students enjoyed the sessions, especially the content.
- 3.14. that students found the GOLs highly interactive, and they were very enjoyable however they were too long.

Action: Reps to meet Dr Pinder offline to discuss GOLs.

3.15. that students found the LOLs were repetitive, they were all about public intervention, and they would appreciate a more varied format. Students would appreciate more information included about assessment or the signposting of key information.

Communication Skills

- 3.16. that there was a lot of positive feedback especially regarding the F2F sessions which were very appreciated.
- 3.17. that students would like to continue the interactive nature of the LOLs but would like a break in the middle as they were quite long.
- 3.18. that students would like to get some written feedback from their F2F sessions to help them develop.

Professional Values and Behaviour (PVB)

- 3.19. that students enjoyed the content, they found it interesting and applicable.
- 3.20. that students really liked the diabetes workshop as it fed directly into the CSI case as well.
- 3.21. that students would like more signposting with regards to assessment and what to know and perhaps have some practice exam questions.

Research Skills

- 3.22. that clearer communication about the purpose of tasks, and if they would be included in the assessments, would be appreciated.
- 3.23. that students would like a LOL or GOL on Excel as a lot of tasks required Excel but not all students were comfortable in using it. Reps were informed there was a section in the POM Primer on how to use Excel. Action: Reps and Dr Dos Santos to take offline and put something more robust in place for next year.

Online learning and general comments

- 3.24. that students would prefer tutorial group based breakout rooms for LOLs and random groups for the F2F sessions.
- 3.25. that students would prefer larger groups if they had to be in random grouped breakout rooms.
- 3.26. that students felt the workload was more manageable that Term 1, they enjoyed the increase in LOLs and F2F sessions.
- 3.27. that students thought the Endo topic review was useful and would like more of them incorporated. They were informed this would not be possible for this year but something that could be built in going forward.
- 3.28. that students would like an hour to an hour and a half break between LOLs and F2F sessions as sometimes they did not have enough of a gap which made travel difficult.

CONSIDERED:	Phase 1b student feedback (SSLG-PO2021-10)
REPORTED:	Bio-regulatory Systems (BRS)
	 3.29. that reps found the pre-SSLG meet with Dr Childs very helpful. 3.30. that the upload schedule for slides was much better than last term although some improvements were still needed. 3.31. that students would like a more detailed list of TILOs/MILOs. 3.32. that students wanted more signposting on core vs extra knowledge and what would be needed for their assessments.
	Anatomy
	 3.33. that the reps found the pre-SSLG meeting helpful and would like to continue this practice. 3.34. that Anatomy sessions had improved significantly, and all students felt the impact of this. 3.35. that there was a much better student/tutor ratio in the CAS and prosection sessions which students would like to see continue going forward. The Phase Director said she could not promise this would be possible to retain to the same extent, but they would definitely take the feedback on board. 3.36. that students were pleased their suggestions for the pre-reading had been
	included, it was interactive and enjoyed by the students.
	<u>CSI</u> 3.37. that feedback was positive in terms of live sessions and the content had been enjoyed.
	3.38. that students wanted to thank the CSI team for being so reactive to feedback and quickly implementing changes. Dr Usmani thanked the students and informed them the team had weekly development meetings to constantly respond to feedback.
	Lifestyle, Medicine and Prevention (LMAP)
	 3.39. that LMAP was positively received and the pre-SSLG meeting with Dr Pinder was helpful. 3.40. that students loved the GOLs but sometimes they took much longer than they were timetabled for and were often timetabled too closely to LOL sessions. 3.41. that students appreciated the topic summaries, and the take home messages, particularly from long GOLs. 3.42. that students would like trigger warnings to be included ahead of difficult content. Dr Pinder confirmed he was meeting with the Welfare team
	regarding this.
	Patients, Communities and Health (PCH)
	3.43. that students would like clearer wording and guidance for the Community Collaboration Project.3.44. that students would like to be able to swap GP placements as some were placed in practices with long/expensive travel.
	Professional Values and Behaviour (PVB)
	 3.45. that there was a split between students liking or disliking PVB. 3.46. that students found it difficult to engage with sessions they did not enjoy. 3.47. that assessment focussed students found PVB difficult as they could not relate it to potential exam questions.
	Communication Skills
	3.48. that practicing communication skills online was not always easy, and students wanted more sessions and an increase in F2F sessions.3.49. that students would like more focus on issues with covid related consultation such as phone consultations.
1	

	 3.50. that students found Insendi much better than Coursera as it was easier to understand and seemed more relevant. 3.51. that students were having problems accessing some of the Coursera content from the previous year. Action: Dr Sadza to investigate this as a matter of urgency. 		
	Action. Di Sauza to investigate this as a matter of urgency.		
	3.52. that students felt the workload was greater than last term and harder to manage.3.53. that students felt iExplore should not be a requirement as they already have a high workload		
4.	Wellbeing reports – Phase 1a and Phase 1b (SSLG-PO2021-08)		
	 4.1 that there appeared to be barriers to accessing welfare support – not enough students were accessing it despite saying they were struggling. 4.2 that students would like something similar to Schwartz rounds to give them a chance to discuss their feelings on sensitive topics. Students would also like trigger warnings and signposting to Welfare support in sessions that cover sensitive topics. Ms Bertolini, Student Services Manager, confirmed conversations were happening around this. 4.3 that some students were suffering financial hardship and felt accommodation fees should be reduced as they were not able to access any communal areas. Many students were not aware of the hardship fund. 4.4 that students were worried about travelling to and from campus are they were sure what documentation they should be carrying in case they were stopped. Students have said they would like a shuttle bus between campuses. Mr Harris, Head of Programme Management, confirmed students should always have their student ID with them when travelling to and from campus and that we would put this information in the bulletin. 4.5 that students were enquiring about an exam safety net due to the uncertainty they had experienced this year. The Phase Director said this was a College level decision and would be directed by them but that mitigating reassured students that they would get a period of workshops in the run up to their exams. 4.6 that there was general uncertainty and upset amongst international students who did not feel Faculty was fully understanding of their situation and asked if they could have an international bulletin for better lines of consistent communication. The Phase Director asked for more information on what these students wanted as she had worked hard to support them all on an individual basis and had met with them all several times. The reps were advised that unfortunately, the situation is dependent on what the Government is advising at the time and this often c		
	students about what support they needed.		
	BRS Module Specification changes (SSLG-PO2021-11)		
	 5.1 that BRS have a specific number and format for EFAs written into module specifications. It will be a challenge for BRS 2 to deliver these EFAs with the teaching. The plan is not to reduce the number of EFAs but remove the specific details so they can be better positioned, more effective and match teaching better. 5.2 that in ILO 4 – BRS 1 and ILO 5 – BRS 2 the team would like to remove the word laboratory as this restricts it to data collection through labs and does not embrace types of data collection that students will encounter. 		
AGREED:	5.3 that the paper was approved.		
6.	A.O.B		

REPORTED:	6.1 that there is a regulatory process for making academic changes to the course. There were six module specs planned for Phase 1c; CSI, Medicine in community, medicine and surgery, PCH3 and a synoptic module which has no Los but contains an assessment. The plan is to create a super module, there would be no difference to how the course is delivered – there would still be three modules with consolidation weeks at the end. This will have to go to the Phase One Forum then the Undergraduate Board and then the Programmes Committee.
7.	Date of next meeting
	19 May 2021

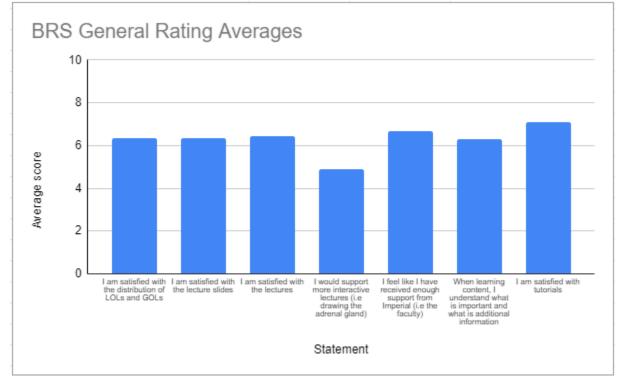
MBBS Phase 1a SSLG Report



Term 3 SSLG: 17/05/2021

Phase 1a – BRS: General

<u>**Question 1:**</u> How much do you agree with the following statements: **Type of Question:** Rating scale: (0 = completely disagree, 10 = completely agree)



<u>Question 2:</u> What, in your opinion makes a good lecture? Feel free to give examples of specific lectures or lecturers.

Type of Question: Free text

Representative comments (N = 48):

- **a.** Lecturer engaging with subject and students through questions, checking understanding throughout the lecture: 15
- **b.** Relevant information on the slides, as well as additional (and signposted as such) relevant information to make it easier to revise from them: 14
- c. Lecture notes/slides in PDF form: 7
- **d.** Clear diagrams the more the better: 12

<u>Question 3:</u> What in your opinion, makes a good tutorial? Feel free to include specific examples of specific tutorials or tutors.

Type of Question: Free text

Representative comments (N = 40):

- a. Smaller breakout rooms with students we are familiar with and lecturers who visit: 19
- **b.** Clear, coherent slides with full explanations of the answers to the questions put on Insendi: 12

c. Tutorials where the faculty demonstrate what we are meant to do, live, before students are sent off to breakout rooms: 9

Question 4: If you have any further comments or feedback about the BRS module, please let us know in the text box below.

Type of Question: Free text

Representative comments (N = 10):

- **a.** Lecturers should give a resource with all the content of their subject in detail, like a lecture handout: 3
- **b.** More exam practice questions: 4
- c. Only setting lectures as LOLs, prereading and consolidations to be set as GOLs: 3

- 1. Organising an in-advance lecture handout with all the information that will be covered in the lecture
- 2. Adding more diagrams to explain difficult concepts or processes as a summary
- 3. Smaller breakout rooms with tutors in them for a longer period of time
- 4. Lecture notes/slides also in PDF form

Phase 1a – BRS: Cardiology and Respiratory

Question 5: What were you most satisfied with in CardioResp? **Type of Question:** Free text

Representative comments (N = 35):

- **a.** Engaging and interactive tutorials (Escape room tutorial and stabbed to stable tutorial): 13
- **b.** Review sessions and TBLs: 16
- c. Was made very clear what information we needed to know and was relevant: 6

Question 6: What were you least satisfied with in CardioResp?

Type of Question: Free text

Representative comments (N = 35):

- a. Pace of teaching was a bit fast and some slides were not explained: 18
- **b.** Some analogies were confusing to follow; additional text could have helped to understand them a bit more: 12
- c. Not enough time to go over some of the GOLs and tutorials: 5

<u>**Question 7:**</u> Do you have any general comments or improvements for the CardioResp block? **Type of Question:** Free text

Representative comments (N = 26):

- **a.** Students asked for more explanations of difficult topics or concepts, particularly the ECG, pathologies and the scuba diving analogy: 13
- **b.** Students were not told beforehand that the consolidation tutorials would be TBLs, so could not prepare: 4
- **c.** Provide lecture handouts: 9

- 1. Making students aware of any sessions that would be TBLs
- **2.** Increasing the amount of time left between tutorials and the other GOLs and LOLs to allow students to ensure they cover everything
- 3. Providing lecture handouts with information that will be covered in the lecture

Phase 1a – BRS: Gastroenterology

Question 8: What were you most satisfied with in Gastroenterology?

Type of Question: Free Text

Representative comments (N=27)

- **a.** Lecture slides very useful and had a lot of diagrams with information on the sides: 19
- **b.** Tutorials were interactive and useful: 4
- **c.** Breakdown of lectures helped to understand the roles and functions of the different organs: 4

Question 9: What were you least satisfied with in Gastroenterology?

Type of Question: Free Text

Representative comments (N=35)

- **a.** GOLs felt long and heavy in content could have been split up: 12
- **b.** Some lectures felt rushed e.g. hepatobiliary tract: 9
- **c.** Some lectures had slides with only diagrams and no text; this makes it hard to make sense of the lecture, especially for any students that might not be able to attend: 8
- **d.** Tutorial groups felt too big to learn effectively: 6

Question 10: Do you have any general comments or improvements for the Gastroenterology block?

Type of Question: Free Text

Representative comments (N=13)

- **a.** Shorter lectures, potentially by splitting up some of the longer lectures: 3
- **b.** Focussing more on specific clinical problems in depth rather than a broad overview of all the different problems that can be caused by a GI problem: 4
- **c.** Document with key points from the tutorials to know what concepts must be taken from them: 6

- **1.** Splitting up some of the lectures to reduce the content being covered and to give more time to explain concepts
- **2.** Providing a document with the key points from the tutorials, to help students know what concepts must be taken from them
- **3.** In tutorials and lectures, providing more clinical examples of cases related to the systems being discussed

Phase 1a – BRS: Urology

Question 11: What have you been most satisfied with in Urology so far?

Type of Question: Free Text

Representative comments (N=28)

- a. Lectures were reasonably paced and understandable: 4
- **b.** Good slides very thorough so useful for revision: 9
- c. Interactive tutorials especially with the in person urine analysis: 15

Question 12: What have you been least satisfied with in Urology so far?

Type of Question: Free Text

Representative comments (N=18)

- **a.** Unsure about what information was needed to take away from the practical session: 5
- **b.** Slides from urological disorders lecture could have been more structured: 9
- **c.** More clarification of terms and definitions as there was some contradictions (example mentioned was freely filtered): 4

<u>**Question 13:**</u> Do you have any general comments or improvements for the Urology block? **Type of Question:** Free Text

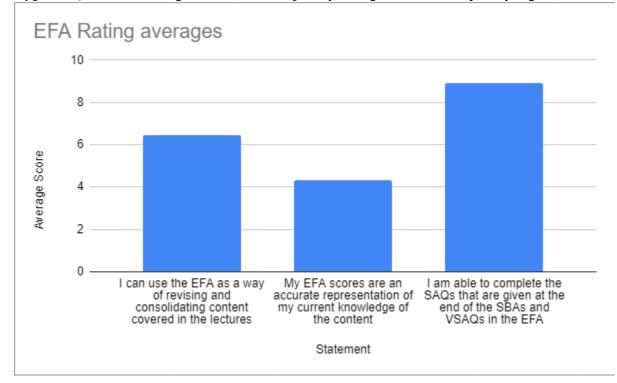
Representative comments (N=9)

- **a.** More pathophysiology and explanations of a few urological disorders instead of many disorders that are not extensively covered would be preferred by studentsd: 5
- **b.** Kind and calm lecturers: 2
- **c.** Would have liked more teaching on overall reabsorption and secretion in nephron; more practice using GFR and RC to consolidate learning: 2

- 1. Signposting the definitions of terms that are covered in the lectures throughout the slides
- **2.** Including more pathophysiology and thorough explanations, potentially of fewer disorders in interest of time
- **3.** Increasing the number of practice questions available to students in the tutorials to allow them to consolidate their understanding of fundamental topics

Phase 1a – EFA

<u>**Question 14:**</u> How much do you agree with the following statements? **Type of Question:** Rating scale (0 = Completely Disagree, 10 = Completely Agree)



Question 15: Do you have any comments or improvements for the EFAs? Feel free to explain your answers to any of the questions above.

Type of Question: Free Text

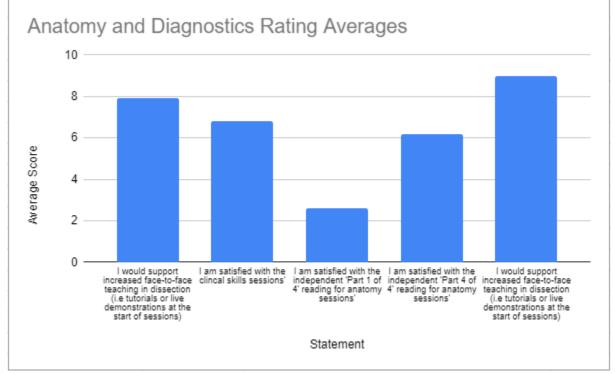
Representative comments (N=26)

- **a.** EFA difficulty could be more representative of the summative exams: 20
- **b.** SAQs to be timed within the EFA
- c. EFA scores could be uploaded onto kaizen faster

- **1.** Increasing the difficulty of the EFA questions to more reflect the difficulty of those that we are asked in exams
- 2. Adding the SAQs into the timed sections with the VSAQs and SBAs
- 3. Uploading scores onto Kaizen as soon as possible

Phase 1a – Anatomy and Diagnostics

<u>Question 16:</u> How much do you agree with the following statement: **Type of Question:** Rating scale (0 = Completely Disagree, 10 = Completely Agree)



Question 17: What were you most satisfied with in Anatomy and Diagnostics? **Type of Question:** Free Text

Representative comments (N=37)

- **a.** The part 4 of 4 questions are very useful in consolidating knowledge and more questions would be even better: 13
- **b.** Tutors were very helpful and attentive: 17
- **c.** Questions based approach in the DR: 7

Question 18: What were you least satisfied with in Anatomy and Diagnostics?

Type of Question: Free Text

Representative comments (N=33)

- **a.** The length of time assigned to do the CAS section of Part 1 of 4 is not enough: 10
- **b.** Students felt the formative/mock examination was not similar to the summative and the summative was much harder in comparison: 16
- **c.** Part 3 of 4 could be released earlier to give time to go over what it is we should be looking for in the DR: 7

Question 19: Do you have any comments or improvements for Anatomy and Diagnostics? Feel free to explain your answers to the first question.

Type of Question: Free Text

Representative comments (N=25)

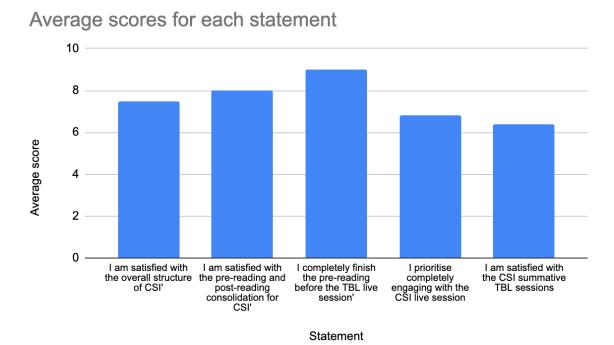
- a. There are no answers given to us for the question in the slides of the DR session: 8
- **b.** Not enough cadaveric diagrams in the teaching as well: 9
- c. Have the CAS section of part 1 of 4 delivered as a LOL: 7

- **1.** Introducing more application-based question in the part 4 of 4
- 2. Releasing parts 1 and 3 of 4 on Insendi earlier in relation to the in person sessions
- 3. Including answers to the questions in the slides of the DR session
- 4. Increasing the amount of time allocated for part 1 of 4

Phase 1a – CSI

Question 20: How much do you agree with the following statements:

Type of Question: Rating scale: (0 = completely disagree, 10 = completely agree) (N=52)



Question 21: What are you most satisfied with in the CSI module? **Type of question:** Free Text

Representative comments: (N=27)

- a. Interesting content delivered in an engaging way: 21
- b. Ability to apply principles learned in other modules: 6
- c. Live sessions are well taught: 2

Question 22: What are you least satisfied with in the CSI Module?

Type of question: Free Text

Representative comments: (N=25)

- a. TAPP feedback can be a little vague and takes some time for feedback to be given: 23
- b. Cases 7 and 8 were hard: 21
- c. Not enough detail in post session slides: 3

Question 23: Do you have any general comments or improvements for CSI?

Type of question: Free Text

Representative comments: (N=14)

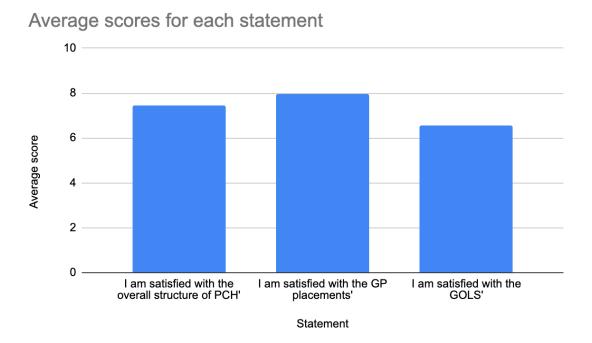
a. Quicker and more specific feedback- 6

- b. "CSI best module"- 2
- c. "Working in a team"- 2

- 1. Continuing the interactive and engaging teaching style of part 2 of every case.
- 2. Reducing the time between cases and feedback for the tAPP, as well as increasing the specificity of feedback.
- 3. Continuing the integration of content learned in other modules.

Phase 1a – PCH

<u>**Question 24:**</u> How much do you agree with the following statements: **Type of Question:** Rating scale: (0 = completely disagree, 10 = completely agree) (N=62)



<u>Question 25:</u> What are you most satisfied with in the PCH module? **Type of question:** Free Text

Representative comments: (N=23)

- a. "Having clinical experiences during Covid": 12
- b. "Opportunity to speak to patients": 4
- c. "GP tutorials": 3

Question 26: What are you least satisfied with in the PCH Module? Type of question: Free Text Representative comments: (N=22)

- a. "Guidance on GP tasks like the community survey": 20
- b. "GOLs can be tedious": 6
- c. "Long commutes to GPs": 2

Question 27: Do you have any general comments or improvements for the PCH module? **Type of question:** Free Text

Representative comments: (N=15)

- a. "Great talking to patients: 10
- b. "Wasn't sure what was assessed": 3

- 1. Continuing the use of clinical placements.
- 2. Creating separate sections on Insendi just for assessment related purposes.

Phase 1a – Online Learning

Question 28: What are you most satisfied with in terms of educational platforms (i.e. Insendi, LAMS, MedLearn, Kaizen)

Type of question: Free Text

Representative comments: (N=31)

- a. Overall, platforms run well and easy to navigate
- b. Most satisfied with Insendi students particularly like the fact Insendi acts as a hub for all teaching and is well structured and accessible.
- c. Joint second most satisfied platforms are MedLearn and Panopto

Question 29: What are you least satisfied with in terms of educational platforms (i.e. Insendi, LAMS, MedLearn, Kaizen)

Type of question: Free Text **Representative comments: (N=30)**

- a. Kaizen: difficulty navigating e.g. students found it hard to find PCH submission form. Assessment results are not uploaded in a timely manner.
- b. Panopto: difficulty searching for lecture recordings as titles of lectures do not match with recording names or event names
- c. Practique: slow and crashes sometimes.
- d. MedLearn: useful information is hidden in folder called 'Year Handbook'. Students feel this should be made more accessible on the homepage of MedLearn. Students would find it easier to navigate MedLearn if the layout of the platform was more accessible.

Question 30: Have you experienced more or fewer problems with online educational platforms compared to last term?

Type of question: Rating scale: (0 = completely disagree, 10 = completely agree) (N=145) **Answer (N = 46):** Average response: "About the same"

Question 31: Do you have any thoughts or improvements for educational platforms? Type of question: Free Text Representative comments: (N=21)

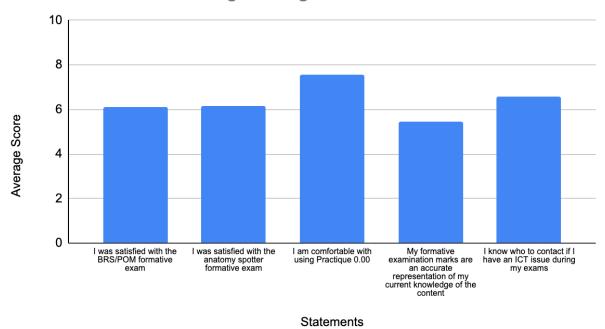
- a. More tutorials/guidance on how to use platforms
- b. Integrating more aspects of the platforms onto the same one with particular mention of merging Insendi and MedLearn i.e. make MedStep questions and upcoming exam dates accessible via an Insendi tab etc.
- c. More LOL's as they are perceived as more engaging compared to GOL's

Proposals for educational platforms:

- 1. Streamlining the platforms so that everything is available on fewer platforms (with particular mention to merging Insendi and MedLearn)
- 2. Ensuring folder 'Year Handbook' on MedLearn is made more accessible on the homepage
- 3. Ensuring Panopto lecture recordings have same titles as the timetabled/Insendi lecture titles to ensure easier searching of recordings

<u>Question 32:</u> How much do you agree with the following statements regarding **formative** exams?

Type of Question: Rating scale: (0 = completely disagree, 10 = completely agree) (N=47)



Formative Exams Rating Averages

Question 33: Do you have any comments or improvements for the formative examinations? Feel free to explain your answers to any of the questions above.

Type of question: Free Text

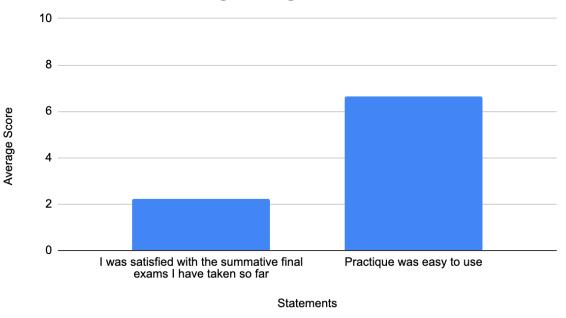
Representative comments: (N=27)

- a. Students felt formative exams were not very representative of the summative exams.
- b. Students would like mock exams to be longer with questions equivalent to the difficulty asked in the summative exams.
- c. Students found especially the formative Anatomy Formative Spotter considerably easier compared to the Summative.
- d. Some would prefer to have two separate BRS and POM mocks in line with how the summative exams take place

e. Students would like to either have access to how well they scored on individual subtopics within BRS/POM e.g. endo, gastro etc. or have access to the full mock papers so they will at least have an understanding of how they performed in different subtopics, which will allow students to tailor their revision

<u>Question 34:</u> How much do you agree with the following statements regarding **summative** exams?

Type of Question: Rating scale: (0 = completely disagree, 10 = completely agree) (N=49)



Summative Exams Rating Averages

Question 35: Do you have any thoughts or improvements for the summative examinations? Feel free to explain your answers to any of the questions above.

Type of question: Free Text

Representative comments: (N=35)

- a. Due to the mistake made by the faculty during the Phase1a Anatomy Spotter Exam (where Abdomen questions were included), this has led to a loss of trust and faith in the faculty and Pracique from students. Thus, this caused worry and distress regarding future summative exams.
- b. Ensuring faculty do a thorough check of what content needs to be assessed in exams & examining questions within summative exams to guarantee they are testing appropriate content and TILO's
- c. Students feel summative examination questions were much harder than formatives and EFA's, thus, these questions didn't adequately prepare students for summative questions as not at the same standard

- d. Cannot highlight, delete or rearrange typed-out sentences on practique. Adding these additional features will make the platform more accessible.
- e. Add titles to questions so if a student needs to go back to a question, they can refer to the title shown rather than remembering the question number.

Phase 1a – General Academic Questions

Question 36 Do you have any comments on the workload of Term 2 so far?

Type of question: Free Text

Representative comments: (N=25)

- **a.** Workload for Term 2 is better than term 1
- **b.** Students feel that the current workload is more manageable and can get work done in scheduled time due to increased LOLs and F2F teaching, thus making work more enjoyable
- c. Students feel that topics like gastroenterology, urology and CardioResp should have been taught earlier as did not have time to process information before mocks. This led to students feeling stressed by the end of the term.

Question 37: Do you have any comments on the Timetable for Term 2 so far?

Type of question: Free Text

Representative comments: (N=18)

- a. Students feel current Term 2 timetable is better/accommodating than Term 1 due to more accurate scheduling; more breaks and change to LOLs. Students appreciate the work faculty put in to change the Spring timetable
- b. Well-organised timetable
- c. Students feel timetable is sometimes unbalanced some weeks are packed while others are empty. Students prefer if timetable is more evenly distributed.
- d. Students felt topics like gastroenterology and urology should have been taught earlier in timetable as did not have time to process information before mocks.

Question 38: Do you have any general feedback on the course, both positive and negative, and how the course could be improved? If you have any specific concerns you have not yet described, you can state them here:

Type of question: Free Text

Representative comments: (N=17)

- a. Appreciate how hard the faculty work to ensure students have the best academic year possible
- b. Worried about lack of clinical skills practice in Phase1a. Students feel they need more clinical skills practice during Phase1b since they missed formative CPA this year.
- c. Ensure all lecturers upload PDF and PPT versions of slides
- d. Appreciate faculty arranging extra anatomy sessions for those who missed it
- e. EFA's not as useful because did not fully prepare students for the types of questions present in open book exams. Students would prefer more practice questions that are at a similar level to the summative exams

f. Appreciate the work the academic reps have done in listening, passing on and implementing feedback

Proposals:

- 1. Ensuring timetable workload is evenly distributed
- 2. Introducing more clinical skills practice on current Phase1a CAS knowledge to prepare for CPA in Phase1b
- 3. Uploading PDF and PPT versions of lecture slides
- 4. Ensuring EFA questions are adjusted to fit the types of questions present in open book exams, so students have realistic expectation of potential questions
- 5. Considering the arrangement of when the BRS topics are taught

MBBS Phase 1b SSLG Report

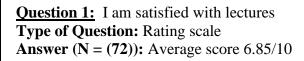


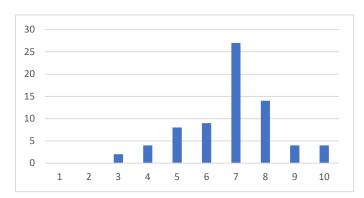
Term 3 SSLG: 19 May 2021

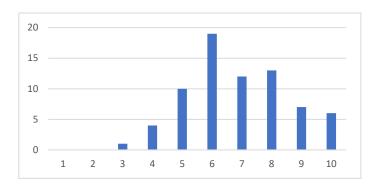


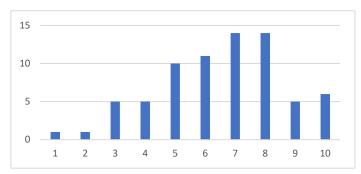
Phase 1b – Bioregulatory Systems: General

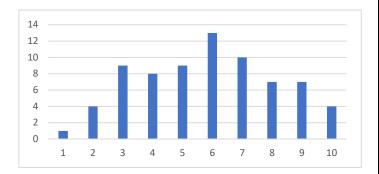
(Q1-6) How much do you agree with the following statements about the BRS module? (0 = Completely Disagree, 10 = Completely Agree)











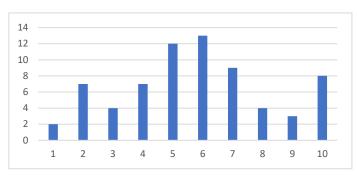
Question 2: I am satisfied with lecture slides **Type of Question:** Rating scale **Answer (N = (72)):** Average score 6.86/10

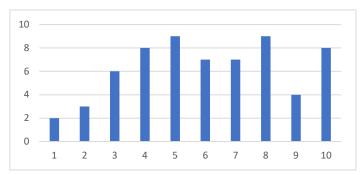
<u>Question 3:</u> I am satisfied with the current upload schedule for Insendi content **Type of Question:** Rating scale Answer (N = 72): Average score 6.51/10

Question 4: I am satisfied with tutorials **Type of Question:** Rating scale **Answer (N = 72):** Average score 5.83/10



<u>Question 5:</u> When learning content, I understand what I feel I need to know **Type of Question:** Rating scale Answer (N = 72): Average score 5.50/10





Question 6: I feel like I have received enough support from Imperial (i.e. from faculty/lecturers) on my learning and study techniques Type of Question: Rating scale Answer (N = 72): Average score 5.54/10

Question 18: Do you have any general comments or improvements for BRS? Type of Question: Free text Representative comments (N = 38):

- a. Most students revised for the exam as if it was closed book but felt that as the questions were highly specific, the exam was more testing speed of looking up information in one's notes
- b. Some students would like to focus more on the pathophysiology of the diseases to fully understand them rather than just listing signs
- c. Students expressed a wish for teaching staff to be more explicit about what we need to know, potentially by introducing detailed sub-points to the broad learning objective list
- d. Students requested consistent lecture notes formats. Notably students raised that sometimes content is covered by images (especially in PDF formats, or images do not appear in PowerPoint)
- e. Students requested the captions for Panopto videos to be uploaded as a PDF documents onto Insendi
- f. Some students felt that there was too much content for a single exam
- g. Students requested more exam-style questions and expressed they felt that EFAs were not very representative
- h. Students feel that there are different teaching approaches and standards between modules and suggested more collaboration between topic leads
- i. Upload schedule onto Insendi can still be improved to 24 hours before the session in PowerPoint formats where applicable



Phase 1b – Bioregulatory Systems: Urology/Renal

Question 12: What were you most satisfied with in Urology/Renal? **Type of Question:** Free text **Representative comments (N = 40):**

- a. Content was taught very well in a structured manner with good explanations
- b. Lecture slides were well organised with the right level of information
- c. TBL style tutorial was helpful to test our knowledge
- d. SBAs given as practice were very useful and students would like more

<u>Question 13:</u> What were you least satisfied with in Urology/Renal? Type of Question: Free text Representative comments (N = 33):

- a. Unclear about what was needed to be known
- b. Not enough explanation of answers to questions in tutorials
- c. Some lectures were quite dense and difficult to follow (Sodium and potassium balance)

Phase 1b – Bioregulatory Systems: Musculoskeletal and Rheumatology

Question 14: What were you most satisfied with in MSK/Rheum? **Type of Question:** Free text **Representative comments (N = 35):**

- a. Rheumatology lectures and tutorials were very engaging
- b. Integration of first year content and repetitive nature to consolidate content
- c. Lecture and tutorial on radiology from Dr Malik
- d. Clear outlining of required and extra content in Rheumatology

<u>Question 15:</u> What were you least satisfied with in MSK/Rheum? Type of Question: Free text Representative comments (N = 43):

- a. The same material repeated in multiple lectures made some students experience the course as disorganised
- b. Inconsistent slide design was difficult to follow (especially Back Pain lecture was mentioned)
- c. Students did not know which content was assessable in MSK



Phase 1b – Bioregulatory Systems: Dermatology

<u>Question 16:</u> What were you most satisfied with in Dermatology? Type of Question: Free text Representative comments (N = 35):

- a. Cancer lecture
- b. Use of quizzes and SBAs to consolidate knowledge
- c. Clear pictures for visualisation

<u>Question 17:</u> What were you least satisfied with in Dermatology? Type of Question: Free text Representative comments (N = 50):

- a. Students felt it would be more beneficial to focus and highlight more common conditions than covering 100+ slides in an hour-long lecture
- b. Students felt as if the large amount of content in each lecture negatively impacted the interactivity of the course
- c. Background concepts of dermatology should be revisited before the actual diseases themselves
- d. Suggestion to treat Dermatology as a Domain because it is often linked to other diseases/topics
- e. Essential principles/diseases and take-home messages were difficult to grasp

- 1. Ensuring students know which content is assessable
 - 1. Rheumatology lecturers were a great example of how this could be done well
 - 2. For next year introducing a more in-depth, detailed list of learning objectives
- 2. Using consistent slide formats
 - 1. Some notable examples students mentioned as difficult to use were lectures on Structural Heart Disease, Lactation Science Barriers and Back Pain
- 3. Releasing more practice questions that are representative of the actual exam
- 4. Dermatology content to be balanced out to enable space for interactivity and signposting of key concepts.
 - 1. If necessary, additional teaching time should be introduced and number of conditions per lecture reduced.
- 5. GOL/PowerPoint Insendi upload times can still be improved



Phase 1b – Anatomy and Diagnostics

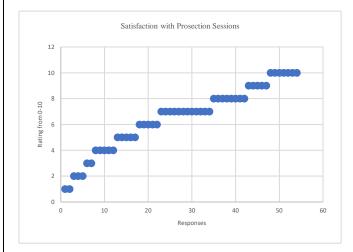
(Q1-4) How much do you agree with the following statements about the Anatomy and Diagnostics? (0 = Completely Disagree, 10 = Completely Agree)

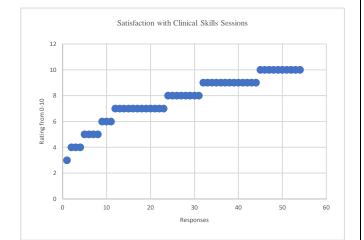
<u>Question 1:</u> I am satisfied with prosection sessions Type of Question: Scale Answer (N = 55): Average score 6.52/10

<u>Question 2:</u> I am satisfied with clinical skills sessions Type of Question: Scale Answer (N = 55): Average score 7.74

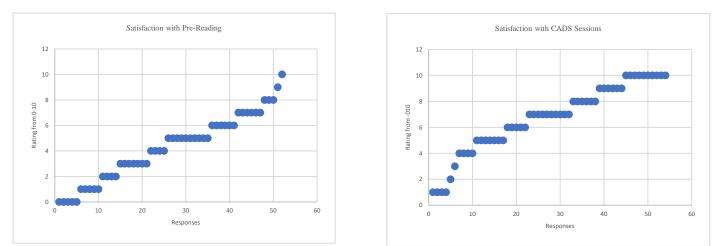
<u>Question 3:</u> I am satisfied with the pre-reading for anatomy sessions Type of Question: Scale Answer (N = 53): Average score 4.25

Question 4: I am satisfied with the new live tutorials (Part 5 of 5) **Type of Question:** Scale **Answer (N = 55):** Average score 6.70









<u>Question 5:</u> Do you have any new comments for Anatomy and Diagnostics? Type of Question: Free text Representative comments (N = 40):

- a. Almost all comments discussed the poor quality of pre-reading (entirely textbook) for pelvic anatomy, in contrast to some of the great pre-reading that was written earlier in the year.
 - i. Many commented that the sheer quantity and hours required to finish this made it impossible to complete, and therefore, most felt unprepared for pelvis (as compared to other system sessions).
- b. Students mentioned that they enjoyed CADS sessions but felt they were often too fast to follow and at times, felt rushed.

A key takeaway from the above is that, to students, the ideal pre-reading includes faculty made videos with diagrams to teach concepts, Acland's links to show them on a cadaver, interactive activities and formative questions to test them.

Proposals:

- 1. Using content other than textbooks (e.g. screencasts) in pre-reading
- 2. Maintaining group sizes in DR sessions
- 3. Keeping Acland's links integrated with prereading
- 4. Using more cadaveric/radiological imaging
- 5. Increasing the number of questions in post-reading
- 6. Using more interactive activities in DR pre-reading



Phase 1b – CSI

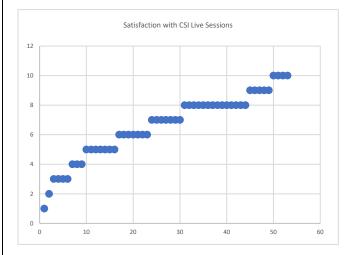
(Q1-4) How much do you agree with the following statements about the CSI module? (0 = Completely Disagree, 10 = Completely Agree)

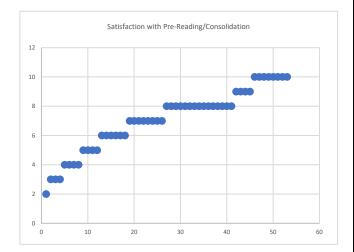
Question 1: I am satisfied with CSI live sessions **Type of Question:** Scale **Answer (N = 53):** Average score 6.60/10 (Increase of 1.20 from Term One)

<u>Question 2:</u> I am satisfied with the pre-reading and consolidation for CSI cases Type of Question: Scale Answer (N = 53): Average score 7.08/10 (Increase of 0.40 from Term One)

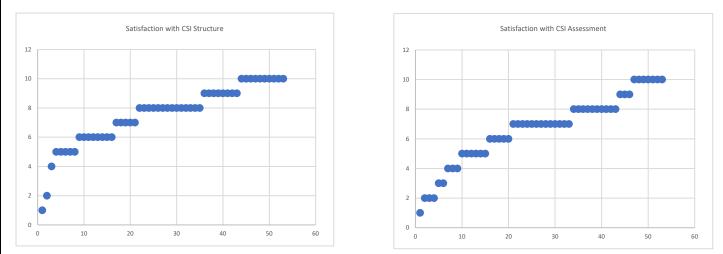
<u>Question 3:</u> I am satisfied with the structure of CSI Type of Question: Scale Answer (N = 53): Average score 7.53/10 (Increase of 1.18 from Term One)

<u>Question 4:</u> I am satisfied with CSI summative TBLs Type of Question: Scale Answer (N = 53): Average score 6.66/10 (Increase of 1.29 from Term Two)









Question 5: Do you have any new comments for CSI? Type of Question: Free text Representative comments (N =30):

- a. Most comments complained about earlier CSI TBLs in the year and praised the more recent CSI TBLs, asking to retain the more recent style.
- b. Overall, students liked CSI best at the end of the year

Proposals:

1. Keep the TBL styles trialled during the last CSIs of the year.



Phase 1b - LMAP

(Q1 & 2) How much do you agree with the following statements about LMAP? (0 = Completely Disagree, 10 = Completely Agree)

Question 1: I am satisfied with LMAP pre-reading **Type of Question:** Rating scale **Answer (N = 51):** Average score 7/10 (+2 from last term (3))

Question 2: I am satisfied with live online tutorials **Type of Question:** Rating scale **Answer (N = 53):** Average score 6/10 (+1 from last term (3))

<u>Question 3:</u> Do you have any new comments for LMAP Type of Question: Free text Representative comments (N = 36):

- a. Respondents felt that sessions were interesting but that the take-home messages were not sufficiently clear i.e., not knowing which information is basic foundations and what is extra to achieve the highest marks.
- b. Some students had a poor experience in Lifecourse LOLs, saying that they were left without support when they were still unsure about the content. Some students felt that the structure was repetitive, however some found key points were still difficult to pick out.
- c. Many people commented on the quality of content, attitude of the LMAP faculty ("Keep it up!") and the range of interesting topics.
- d. There is a divide in the responses between those that think LMAP is interesting and well-taught, those who are solely concerned with "What do we need to know for the exam"-related issues, and those who find it hard to engage.

- 1. Introducing exam-like content early on in the teaching and clearly sign-posting examinable content.
- 2. Varying the structure of LOLs within a topic and/or adding more check-in points between the tutorial lead and students.
- 3. Producing a mock for each topic as covered, similar to the Epidemiology formative which students liked.



Phase 1b - PVB

(Q1-3) How much do you agree with the following statements about PVB? (0 = Completely Disagree, 10 = Completely Agree)

Question 1: PVB sessions help me understand my roles/responsibilities as a medical student Type of Question: Rating scale Answer (N = 50): Average score 6/10 (+1 from last term O) Question 2: PVB sessions help me understand my roles/responsibilities as a future doctor Type of Question: Rating scale Answer (N = 50): Average score 6/10 (same as last term)

<u>Question 3:</u> PVB supports my learning in other modules/domains Type of Question: Rating scale Answer (N = 49): Average score 4/10 (same as last term)

<u>Question 4:</u> Do you have any new comments for PVB? Type of Question: Free text Representative comments (N = 22):

- a. The method by which PVB is assessed (as part of other exams, and especially in the BRS exam) does not serve the purpose of the module well. "[*T*]he way that it is examined (integrated in BRS) does not really improve the key learning points and takehome messages of PVB"
- b. Regarding co-production:
 - a. Students understand the aim of the co-production workshops but do not feel confident the intended goals are most effectively achieved via those kinds of sessions.
 - b. There were concerns that examinations in CSI were unfair. Students especially highlighted that a high number of people did not attend the workshops or did not contribute to the tAPP part of the examination.
 - c. Students felt like the same takeaway points could be taught in a shorter amount of time.
- c. Respondents find that the teaching is getting more and more engaging as we turn to more complicated ethical issues, with some saying we were likely ready to handle these earlier on in the curriculum.
- d. One student commented on several issues found in the diversity lecture. The specific sections of their response are given here: "There were discriminatory comments made in one of the diversity lectures which were offensive, examples include: asking what's wrong with a picture of adults of one race with children of another, making generalisations that all Asian countries have a culture in which left handed eating is disrespectful ... the Republic of Ireland was referred to as Southern Ireland."

- 1. Regarding length of sessions:
 - a. Conciseness was a common theme, especially regarding the co-production workshop.
 - b. Students strongly preferred tutorial-type LOLs to lectures.
- 2. (As last term) Increasing the number of real-life examples, ethical scenario-based questions, and challenging situations in all delivery types; add exam-style formative questions to GOLs so students understand how they will be assessed.



Phase 1b - Clinical Communication

<u>Question 1:</u> Do you have any new comments for Clinical Communication? Type of Question: Free text

Representative comments (N = 16):

- a. The most common response was about practice everyone generally wants more, especially inperson sessions.
- b. Lecture-based sessions are not considered particularly useful.
- c. Tutors led sessions were highly enjoyed.
- d. Students feel there was a lack of clarity relating to CPA some students found they were told different information about what to expect in the CPA compared to their colleagues.

Proposals for module

- 1. We know you have been trying to do this, but as usual, as much practice as possible is highly desired among students.
- 2. Ensuring information given by tutors is standardized enough to avoid confusion.
- 3. Limiting lecture-based teaching in favour of practical.

Phase 1b - PCH Hospital Placement

Question 1: Do you have any new comments for your PCH Hospital Placement?

Type of Question: Free text

Representative comments (N = 20):

- a. Respondents' general view of placements is "hit and miss".
 - a. Those who have firm leads and other staff willing to engage them have an amazing experience
 - b. Others describe being left on their own on the ward, being told there is "nothing [for them] to do" and having too many students on the firm in comparison to staff/patients.
- b. Level of support from teaching departments around issues on firms varied a lot between sites.
- c. Many students found their placement useful and enjoyable.

- 1. Ensuring support from education offices is available and responsive across all sites.
- 2. Ensuring firm leads are able to teach students adequately over the course of the placement when arranging firms.
- 3. Clearly signposting key faculty contacts if on-site support is insufficient.



Phase 1b - Learning Platforms

Question 1: Have you experienced more or fewer problems with online educational platforms compared to last term?

Type of Question: Multiple choice (A lot fewer/Slightly fewer/About the same/Slightly more/A lot more) **Answer (N = 55):** Average response: "About the same"

<u>Question 2:</u> Do you have any thoughts or improvements for educational platforms (e.g. Insendi, MedLearn) **Type of Question:** Free text

Representative comments (N = 25):

- a. Respondents are very happy with the upload of Coursera content onto Insendi.
- b. Students question the use of Practique by the medical school and software reliability is a really important issue in the eyes of the students.
- c. Medlearn is still unpopular with students, who feel it is difficult it is to navigate and thus might not be the best place for important information.
- d. Learning outcomes on Sofia are hard to navigate, particularly as they not linked to sessions.

Proposals

- 1. Reducing emphasis on MedLearn or redesigning it to make it easier to navigate it is understood it was designed as something of a homepage for students, but they do not view it as such.
- 2. Student trust in Practique is broken and they would rather not use it, particularly in high-stake situations such as summative exams.



Phase 1b - General Feedback

<u>Question 1:</u> Do you have any comments on summative examinations so far? Type of Question: Free text Representative comments (N - 40).

Representative comments (N = 40):

- a. The anatomy exam crash caused significant stress for all students, not just those directly affected by exam crashes. The lack of communication was highlighted as compounding this. (Discussed separately)
- b. It was difficult to find a balance between studying specifics and concepts students were told exams would test concepts but BRS was felt to have been quite specific, and more difficult than last year. Some said the amount of examinable content very large in proportion to the exam.
- c. Questions were repeated between sessions of the CPA exam which students were not expecting clarifying the grade setting system for CPA with students could reduce confusion.
- d. The LMAP exam received few comments but some found the questions vague and were concerned about the ability to assess subjective content in an entirely SBA/VSAQ format.

Question 2: What academic resources have you found to be the most and least helpful when learning and revising?

Type of Question: Free text

Representative comments (N = 32):

- a. Anki for flashcards
- b. Osmosis and PassMedicine for revision
- c. Acland's videos, TeachMeAnatomy and Gray's Anatomy for anatomy
- d. Respondents find Complete Anatomy can be slow, glitchy, and difficult to navigate, but appreciate its usefulness for specific situations such as muscle actions.

Question 3: Do you have any comments on the workload of Term Two so far?

Type of Question: Free text

Representative comments (N = 21):

- a. Responses were mainly in agreement that the workload in Term Two was heavier overall than Term One.
- b. Respondents are still divided as to whether the heavy workload was justified or excessive, as in previous surveys.
- c. A significant number of responses pointed out there were many sessions that took place very near the end of term while they were trying to increase their revision.
- d. Additional resources for revision would have been useful, especially with students feeling the bulk of the work was near the end of term and not the start.
- e. Some people said placement contributed to a feeling of high workload.

Question 3: How does the workload this term compare to last term?

Type of Question: Multiple choice (Much lighter/Somewhat lighter/About the same/Somewhat heavier/Much heavier)

Answer (N = 54): Average score "Somewhat heavier"



Question 4: Do you have any general feedback on the course, both positive and negative, and how the course could be improved? If you have any specific concerns you have not yet described, you can state them here:

Type of Question: Free text

Representative comments (N = 12):

- a. It has been particularly difficult this year for international students. Most students have found there to be a lack of effective communication, including important content with no additional signposting etc. However, for international students the stakes are higher with quarantines, missed holidays, and high financial sums involved.
- b. "Concerns for inclusivity as topics to do with diversity seem to be heavily focused on the black community and ignore all other cultures"



Term 3 – Phase 1 Welfare Report

Feedback collection Information:

- Year 1
 - o Total survey respondents: 97
 - Survey opened on 1st May and closed on 15th May
 - o Qualitative feedback methods: open-text boxes on Qualtrics survey
- Year 2
 - Total survey respondents: 68
 - Survey opened on 1st May and closed 15th May
 - o Qualitative feedback methods: open-text boxes on Qualtrics survey

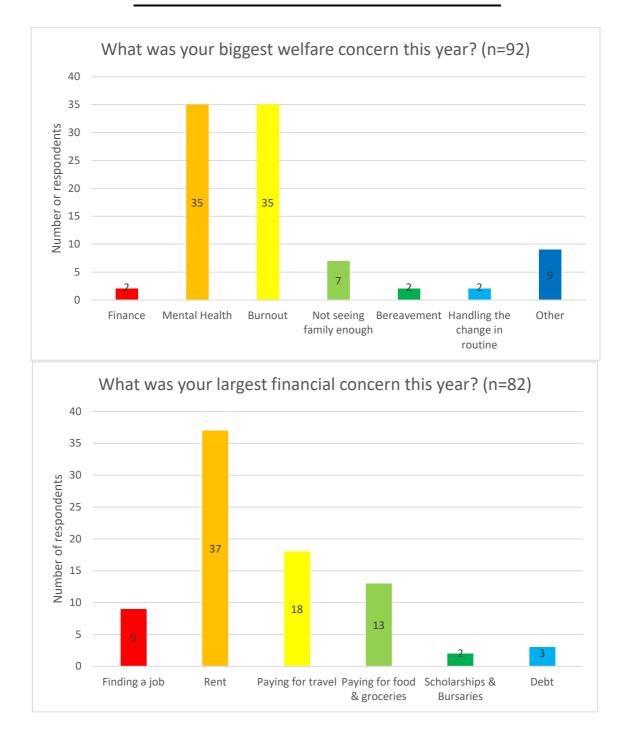
Areas of focus:

- Overall Wellbeing Concerns
- Returning to in-person teaching
- Sensitive Issues in LMAP

Welfare Vice Chair of Representatives: Mabel Prendergast Year 1 Wellbeing Representative: Lilia Evans Year 2 Wellbeing Representative: Shamita Suresh







Focus 1 – Overall Wellbeing Concerns



Qualitative Feedback

Burnout

- End of term 2: content was "too crammed especially near the end causing stress and burnout" & so "Need to find a way to spread out content more."
- Summative exams poor effect on mood and motivation

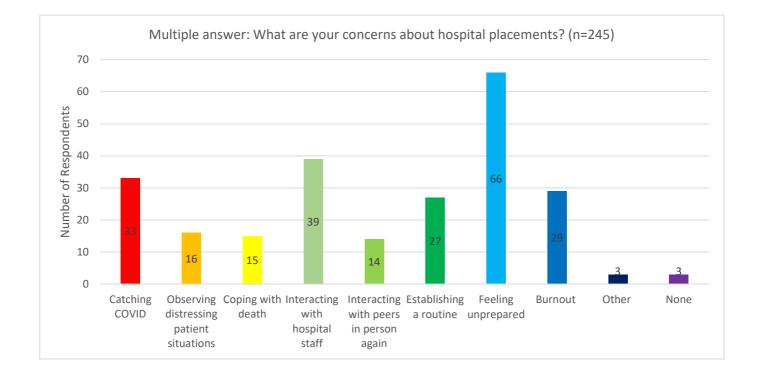
Lack of socialisation

- Many students have mentioned that they have been greatly concerned about making friends and seeing their families this year
- Some people complained that they were unable to return home, this took a significant toll on their mental wellbeing
- -

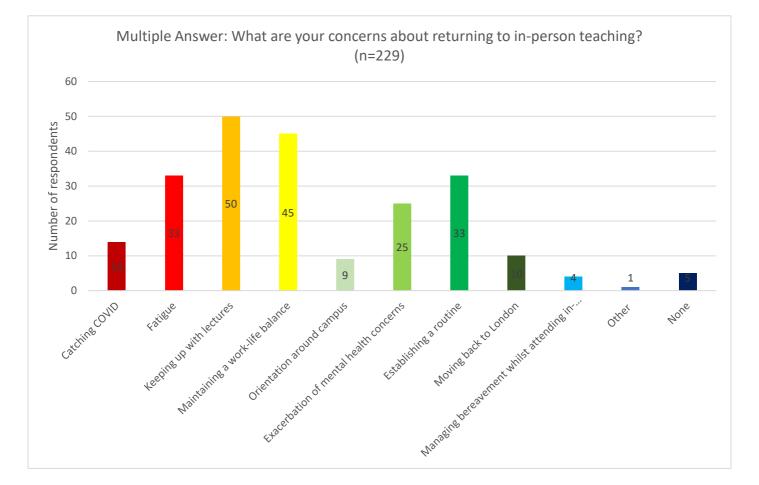
Action Points

- This feedback will be passed onto the next wellbeing reps & the welfare team in order to consider these issues in more depth
- Consider increasing the burnout teaching more extensively within the course, for example in LMAP
- Open a discussion on how we can take into consideration that students will be entering the next academic year having endured abnormal levels of burnout and mental health problems.
- Regarding the comments on the summative exams, we understand that issues were dealt with effectively & timely. In future, we ask that the faculty mitigates for these sorts of mistakes by having existing solutions already in place, that way students can be reassured and therefore will not be affected in forthcoming exams.





Focus 2 – Easing of COVID restrictions & returning to teaching





Qualitative Feedback

Social opportunities

- "people's mental health isn't just going to improve as restrictions ease" this is due to the fact that "many of us still have no friends and it's not freshers anymore so it's not easy to mingle with people."
- Hosting fresher's events even for those going into Phase 1b.

Finance

- Housing: "it's been near impossible to meet people and make friendships to find housemates."
- Difficulty in finding employment whilst on placement

Transition

- Suggestions are "more frequent academic tutor meetings," "slow transition with the option to attend lectures remotely."
- Some students have asked "to be treated like freshers" and to expect that we will be very unfamiliar with in-person teaching.
- Finally, they have asked for all lectures to be recorded & for resources/tips that will be useful in the transition.

Action Points

Social

SU to engage year 2 students in freshers' events in September

Finance

- Help people in finding potential housemates/creating an application system for compatible housemates. This could potentially be done in collaboration between the representation team, SU and/or FEO welfare
- Financial guidance about how to find employment whilst on placement

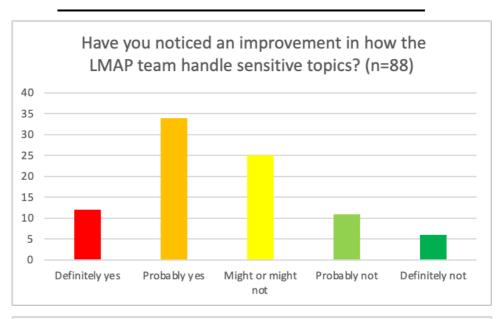
Transition

- Considering optional online/remote attendance
- Repeat inductions for the future phase 1b students, as they have only been exposed to online teaching
- Increase academic tutor support throughout the transition to in-person teaching

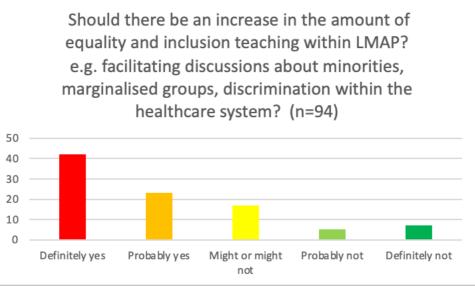
Placement

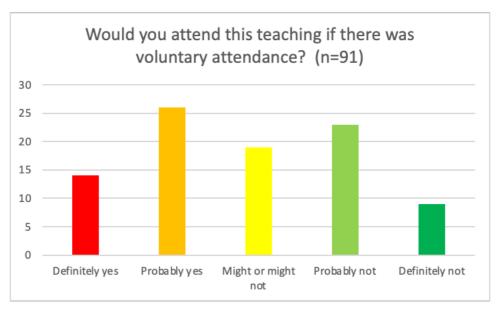
- Understand that feeling "unprepared" is a major concern for students taking this survey. This could potentially be amplified by COVID-19. Potential to explore these concerns further in tutoring/teaching.





Focus 3 – LMAP







Qualitative Feedback

- -----
- Students have mentioned "More queer representation, more integrated and meaningful diversity and inclusion teaching" would be very appreciated
- Most people were happy to include this teaching in either lectures, online selfguided material or small group-based discussions
- Topics requested included:
 - o Exploring different socioeconomic backgrounds
 - o LGBTQ+ communities in healthcare
 - Ethnic minorities and gender inequalities in healthcare (including the wage gap)

Action Points

- Provide more representation of the above-mentioned groups in all modules possible (e.g., in lecture slides, case studies, anatomy teaching, PBL). Ensure that a variety of groups are recognised.
- Revision of old lecture content and material. Ensure that this is up to date and reflects the attitudes of the time, whist also exploring the issue and the problems that these groups face.
- Consider a collaboration with SU welfare where staff from minority groups/interested in the above areas can hold optional lectures for students. Use the SSLG to gauge staff interest in this.
- Consider integrating more formal teaching on diversity in medicine

