

The 8th International Medical Summer School, Manchester: A Report

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The 8th International Medical Summer School, Manchester: A Report

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Abstract

Introduction: The International Medical Summer School is an annual not-for-profit event that aims to equip undergraduates from countries around the world with the clinical and professional acumen necessary to enter their chosen specialty. The 2016 Summer School was attended by 170 students from 63 universities in 24 countries.

Methods: Feedback was collected from delegates retrospectively via online survey using 5-point unipolar rating scales. This report details the structure of the Summer School, before recounting and analysing feedback collected from the delegates.

Results: Overall feedback on Summer School content, career relevance, and meeting objectives was extremely positive with 43%, 40%, and 41% rating these categories as excellent respectively. Amongst the Summer School's diverse teaching methods, workshops and lectures were received more favourably than the World University Anatomy Challenge and experiential Model WHO Assembly.

Conclusion: The feedback is used to generate a number of conclusions about the Summer School's effectiveness as a teaching method and insights into the learning preferences of delegates. Further, a number of recommendations are made to guide future enquiry.

Key Words

Medical Summer School; International Medical Event; Workshops; World University Anatomy Challenge; Model WHO Assembly

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Introduction and Aims of the Summer School

The International Medical Summer School is an annual event that welcomes undergraduates from numerous countries to the University of Manchester. It aims to equip students with the clinical and professional acumen necessary to enter their chosen specialty by providing insight into the training structure and working reality of competitive specialties, as well as opportunities to develop clinical skills and interact with specialist clinicians. These specialty-specific components are complemented by career guidance on academic aspects of a career in medicine, including Ethics and Research, as well as professional development and portfolio. Delegates are further provided with opportunities to enhance their portfolios as the winner of the World University Anatomy Challenge, and this year as 'Best' and 'Commendable' delegates in the Model World Health Organization (WHO) Assembly.

The Summer School took place from Monday 1st to

Friday 5th August 2016 and received 176 delegates from 63 universities in 24 countries. The event was supported by 140 volunteer faculty, comprising of consultants and junior doctors.

The Week Itself

The five-day event saw delegates engage in various educational activities, including practical workshops and experiential learning events underpinned by more didactic lectures. Each evening, delegates were invited to network with each other and faculty at socials organised to allow them to experience Manchester's vibrancy and cosmopolitan atmosphere.

Monday

Delegates separated into three streams according to their interest in Medicine, Surgery, or acute specialties. Consultants then delivered a series of 'A Day in the Life of...' lectures to each third, thus providing valuable insight into a range of specialties to develop each delegates' understanding of their own career intentions.

Tuesday and Wednesday

For the next two days, the delegates were streamed into eight groups according to their preferences. In these streams, delegates attended workshops and lectures that detailed core theoretical content and essential practical skills relevant to their chosen and related specialties.

Thursday

The fourth day piloted a new design in response to feedback from previous delegates requesting a greater proportion of interactive sessions. In the morning, delegates entered screening rounds for the 5th World University Anatomy Challenge. Then 'Global Health Emergency Day' began. In the weeks before the Summer School, delegates received a briefing document to outline the key players and actions involved in humanitarian response. At the Summer School, it was announced that delegates would work together to mount the healthcare response to a novel disaster; a coastal earthquake in Rio de Janeiro, Brazil. Delegates received three lectures on natural disasters, culture of medical humanitarian organisations, and maternal and neonatal global health to further prepare them. After this, Manchester Model United Nations Society facilitated a Model WHO Assembly where delegates could apply the theory in real time to prioritise and initiate the healthcare response to the disaster. This experiential learning event provided an insight into global health challenges outside that offered by mainstream medical curricula.

Friday

Friday consolidated the previous day's humanitarian theme with a lecture on surgery with Merlin and Medicines Sans Frontières, before moving into academic domains. Delegates were lectured on Medical Ethics & Law, Scientific Publications, and Translational Research to broaden their understanding of medical careers. Delegates later participated in knock-out rounds and finals of the 5th World University Anatomy Challenge.

Feedback

Shortly after the Summer School electronic forms were designed to collect feedback according to a 5-point unipolar rating scales and distributed to the delegates. Delegates were required to complete the form to receive certification that they had completed the Summer School. Both quantitative and qualitative data were collated and summarised to produce tables of descriptive statistics for numerical summary and pie charts for graphical representation of responses to different teaching methods. Responses underwent chi-square testing to demonstrate independence.

General Feedback

Global feedback was positive with 43% respondents rating Summer School content as excellent, and the rest as very good. Delegates perceived the Summer School to be relevant to their prospective careers with 40% rating it very relevant and 60% most relevant. In addition, 41% of respondents described the Summer School as 'most certainly' meeting their objectives, with the other 59% choosing 'certainly.' These positive remarks support the Summer School as an effective way to teach medical undergraduates. The workshops received the most positive feedback overall, followed by the lectures, then the less traditional learning events including the World University Anatomy Challenge and the Model WHO Assembly.

Workshops

Rating	Frequency	Yates' p-value
Excellent	485	<0.01
Very good	214	<0.01
Average	30	<0.01
Fair	3	<0.01
Poor	0	<0.01

Table 1: Overall rating frequencies for workshop feedback



Figure 1: Feedback on overall content of workshops

The practical workshops were well received by delegates, with 66% rated as excellent and 29% rated as very good overall. There were 30 average (0.04%) ratings and 3 fair (0.004%), but no poor ratings. The responses can be further subdivided into 62.68% opening presentations rated as excellent, 63.16% equipment rated as excellent, and 60.88% skills learnt rated as excellent. The remaining 39.03% skills learnt were rated as very good, indicating that the workshops provided

delegates with an effective means of developing their clinical skills. All eight streams attended the surgical skills workshop and gave it the most positive feedback across the board, with 68.88% rating the presentation as excellent, 75.63% rating the equipment as excellent, and 74.38% rating the skills learnt as excellent. The airway management, anaesthetics, ECG, and chest drain insertion workshop was only available to two streams, but received impressive feedback with 79.5% rating the presentation as excellent, 65% rating the equipment as excellent, and 68% rating the skills learnt as excellent. All workshops performed well, but in general workshops with lower faculty-delegate and equipment-delegate ratios were more favourably rated by delegates, as well as workshops with more realistic equipment such as animal tissue, suggesting delegates perceived greater benefits from workshops where they had more instructor attention, but also workshops that were more realistic and clearly transferable to actual clinical practice.

Rating	Frequency	Yates' p-value
Excellent	1365	<0.01
Very good	1034	<0.01
Average	511	<0.01
Fair	123	<0.01
Poor	44	<0.01

Table 2: Overall rating frequencies for lecture feedback

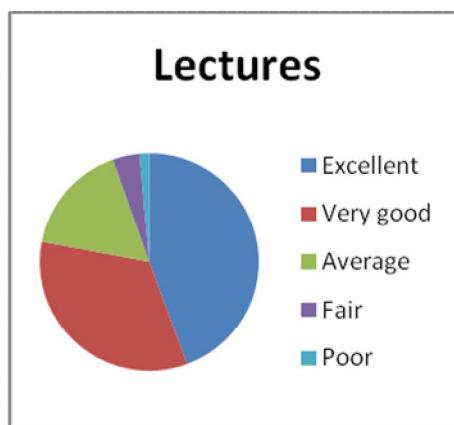


Figure 2: Feedback on overall standard of lectures

Feedback on lectures was largely favourable with 40% rating the general academic standard of lectures as excellent, 45.5% as very good, 13.5% as average and 1% as fair. These figures can be dissected to elucidate all streams delivering equally high standards: 49.22% 'Acute and other specialty' lectures were rated excellent followed by 49.15% and 46.27% of those with medical and surgical

subject matter respectively. In total, there were 123 fair ratings and 44 poor ratings, but more attention is paid to this later. The highest accolades were for the academic careers lectures with 67.33% rated as excellent and 32.67% as very good. Global health and humanitarian levels received a respectable 45.25% excellent feedback and 54.75% very good feedback. Highlights included lectures on 'A Day in the Life of a Plastic Surgeon,' 'Common Psychiatric Conditions and Management,' and 'Gynaecological Disorders and Malignancies,' all three of which were rated as excellent by over 75% of respondents. The diversity amongst these favourite subjects suggests that delegates welcomed instruction in clinical as well as academic areas, from both within and without the traditional undergraduate curriculum.

Anatomy Challenge

Rating	Frequency	Yates' p-value
Excellent	354	<0.01
Very good	265	<0.01
Average	129	<0.01
Fair	10	<0.01
Poor	17	<0.01

Table 3: Overall rating frequencies for Anatomy Challenge feedback



Figure 3: Overall feedback on Anatomy Challenge

Respondents were requested to feedback on the 5th World University Anatomy Challenge in the following areas: standard of screening questions, structure of competition, as well as how interesting it was. 41% rated screening questions as excellent with 59% rating them as very good. Regarding structure, 43% rated the challenge as excellent and 57% very good. Finally, 45% rated the interest level as excellent with 55% rating it a very good. This positive feedback suggests that the World University Anatomy Challenge is not only adequately challenging but also an engaging teaching and learning method for medical undergraduates.

Model WHO Assembly

Rating	Frequency	Yates' p-value
Excellent	193	<0.01
Very good	317	<0.01
Average	205	<0.01
Fair	40	<0.01
Poor	20	<0.01

Table 4: Overall rating frequencies for Model WHO Assembly feedback

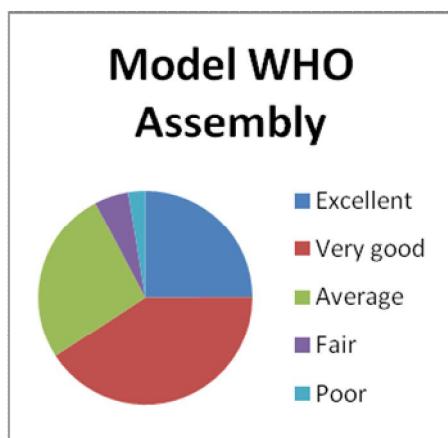


Figure 4.: Overall feedback on Model WHO Assembly

The Model WHO Assembly received less favourable feedback than other educational activities throughout the Summer School, but nonetheless performed positively overall. Feedback was collated in the following domains: topic, structure, interactivity, panellists, and panellist responses to questions. The topic for the experiential learning session (Coastal Earthquake in Rio de Janeiro, Brazil) was rated most highly with 27% excellent and 73% good, followed by the expert panellists and their responses to questions, each receiving 26% excellent and 74% very good feedback. The structure and interactive aspect of the session also received good feedback with 23% and 21% excellent ratings and 77% and 79% very good feedback respectively. This is encouraging feedback for a topic and teaching method outside mainstream medical curricula and supports its efficacy in meeting its objectives of introducing undergraduates to Global Health and Humanitarian Response.

Comments from Delegates

Sixty-eight respondents provided free text feedback and this qualitative data underwent content analysis into thematic units. These themes were then used to inform interpretation of quantitative data and shed further light on positive and negative responses.



Figure 5: Word cloud weighted to represent relative frequencies of themes in free text feedback

Theme	Frequency
Workshops	25
Organisation	23
Teaching and learning	22
Lectures	22
Overall experience	21
Enjoyment	16
Committee and faculty	10
Networking	7
Model WHO Assembly	7
Anatomy Challenge	5

Free text feedback reflected positively on the Summer School's organisation, the committee and faculty, the enjoyment and overall experience, as well as the available teaching and learning opportunities. In particular the workshops, which for many were the highlight of the week. Most importantly, delegates reported not just how much they learnt and how good the teaching was, but also described the relevance and motivating qualities of the experience.

However, there were some constructive suggestions about the organisation and delivery of the educational content that merit further exploration: there was a discrepancy in delegates perceptions of timings and resources allocated to workshops. Invariably, delegates requested more time for workshops as group size and time constraints had prevented some delegates from practicing all skills. However, other delegates raised the issue of lecturers not having time to finish their didactic sessions. One delegate requested an entire additional week in order to participate in more sessions. It is clear from the feedback that delegates thoroughly enjoyed the sessions that they could attend, and it would not be unreasonable to surmise that this feedback results from unrealistic expectations as to what can be achieved at a five-day summer school. For example, one delegate requested an 'in-hospital' session observing surgery, when

arguably this is something to observe on clinical placements during undergraduate studies, not at Summer School. Having said this, workshops are clearly the delegates preferred method of learning and should feature prominently in any future configuration of the Summer School.

At times, last minute cancellations affected delegate satisfaction with lectures. There was also concern between delegates who preferred lecturers to focus on working life and career pathways, and delegates who wished to hear more about clinical cases; just as there was angst between those who enjoyed interactive and experiential learning sessions and those who did not and requested more workshops. Delegates who commented that they did not enjoy certain aspects of the programme did not qualify their statements and so it is not possible to understand whether their feedback represents a shortcoming of the Summer School to meet its educational objectives or whether their preferences are a product of familiarity and individual learning styles. Interpreted in the light of quantitative data that the Summer School was relevant and met the delegates' own learning objectives, it could be suggested that the Summer School was effective despite improvements that could be made to delivery. It is clear that no one design will please every delegate, nonetheless these comments provide

useful insight into how to improve the Summer School.

Conclusion

In conclusion, the Summer School's overwhelmingly positive feedback reflects the sheer scale of learning opportunities it offers and the effort and attention to detail put into the event by organisers and faculty. Lectures and workshops were marginally preferred to less traditional teaching methods, but it is beyond the scope of this report to speculate as to whether this was due to delegates preferring teaching methods that they have grown used to at medical school, or because the content of the lectures and workshops was perceived as more directly relevant to their studies and future careers. More attention could be paid to survey design to elicit delegate preferences for new educational components. The feedback on skills learnt in the workshops demonstrates the capacity of the Summer School to effectively develop the delegates' clinical skills. However, further enquiry should be undertaken to compare delegate confidence levels before and after each session in order to elucidate this further. Feedback was not collected anonymously and, whilst the Summer School is a unique event clearly well received by delegates, it should be noted that this lack of anonymity may influence respondents to feedback more positively.



Image 1: Some Attendees of the 2016 International Medical Summer School.



Image 2: Participants Practicing Laparoscopic Skills



Image 3: Participants Being Taught Basic Surgical Skills



Image 4: Workshop on Orthopaedic Skills.



Image 5: Delegates Participating in Ultrasound Workshop.

The World Journal of Medical Education & Research (WJMER) is the online publication of the Doctors Academy Group of Educational Establishments. It aims to promote academia and research amongst all members of the multi-disciplinary healthcare team including doctors, dentists, scientists, and students of these specialties from all parts of the world. The journal intends to encourage the healthy transfer of knowledge, opinions and expertise between those who have the benefit of cutting-edge technology and those who need to innovate within their resource constraints. It is our hope that this interaction will help develop medical knowledge & enhance the possibility of providing optimal clinical care in different settings all over the world.

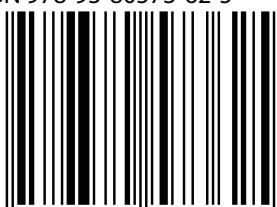


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