

# Perceptions And Expectations Of Medical Students And Junior Doctors In Training: Blended Learning Approach For Medical Education Initiatives

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## Background & Objectives

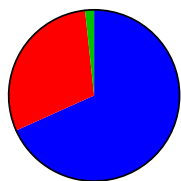


- Evaluating learners' end-user experience of virtual medical education is key to developing sustainable models.
- This study aimed to evaluate standalone virtual and blended learning during and after the COVID-19 pandemic amongst medical students and junior doctors.

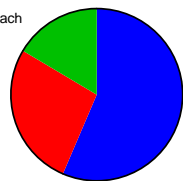
- To understand the experiences of virtual medical education usage amongst medical students and junior doctors.
- To compare the two most used platforms for virtual medical education.
- To study the experiences of junior doctors with blended training days

## Methods

- Medical students and doctors in West Midlands were invited to complete an anonymised 26-item online survey about their experiences
- January to May 2021
- A 5-point Likert scale was used to establish the degree of agreement and disagreement of participant opinion and perception.
- We explored the experiences of 85 junior doctors at regional learning days between August and September 2021.



Preferred Form of Teaching - Students



Preferred Form of Teaching - Professionals

## Results: Online Survey



- While 45.0% students and 74.7% junior doctors agreed virtual learning aided with clinical and community practice
- 72.5% students reported current virtual learning models **did not provide the same quality as face-to-face teaching**.
- 54 (45.0%) students and 127 (74.7%) junior doctors agreed that virtual learning **aided with clinical and community practice**.
- However, 87 (72.5%) students and 65 (38.3%) **disagreed that virtual learning provided the same quality of teaching as in-person teaching**.
- The preferred ratio of face-to-face teaching in relation to virtual teaching amongst medical professionals and medical students was **0.54:0.46** and **0.67:0.33**, respectively.
- Medical students **reported better experience with Zoom compared to Microsoft Teams** and vice versa by junior doctors.
- Majority preferred **blended approach** (95 (55.9%) of junior doctors and 82 (68.3%) of medical students) for future medical education activities (*figure 1*).

	Age (Median, IQR)	M:F Ratio
Doctors (N=170)	35 (32-39)	1.23:1
Students (N=120)	21 (19-22)	3.72:1

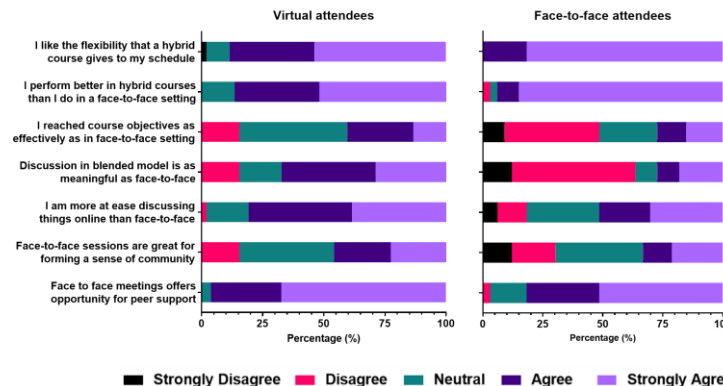


Figure 2: Stacked bar graph summarising the feedback from junior doctors who attended blended teaching days (a) virtually (n= 52) and (b) face-to-face (n= 33)

## Results: Regional Sessions



### The Blended-Model Approach (*figure 2*):

- ✓ Helped **improve performance** compared to standalone face-to-face sessions (blended vs face to face; 55.8% vs 33.3%; p<0.05)
- ✓ Allowed **achievement of learning-objectives effectively** (80.8% vs. 51.5%; p<0.05).
- ✓ Virtual attendance helped **remove inhibitions** to engage in discussions (40.4% vs 27.3%, p<0.05)

### Traditional Face-to-Face Approach (*figure 2*):

- ✓ Provided a sense of **community** (86.5% vs. 93.9%, p=0.236)
- ✓ Opportunity for **peer-to-peer support** (88.4% vs. 100.0%, p=0.402).

There were **no significant technical difficulties** reported by virtual attendees compared to face-to-face attendees (23.1% vs 12.1%; p=0.211).

## Conclusions

### Our findings indicate that:

- Virtual-learning is beneficial** for theoretical learning
- Participants did not favour virtual-learning platforms for learning practical skills.

### Therefore:

- A **combination of face-to-face and virtual sessions** was preferred by both medical students and junior doctors for future medical education.
- These suggestions should be implemented in future medical education programmes

Figure 1a & 1b: Pie charts summarising the proportion of expressed teaching format preferences for medical education by junior doctors (n=170) and students (n=120)

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