

INTRODUCTION + AIMS

Background

Artificial intelligence (AI) is transforming diagnostic radiology at pace. Medical students are the next generation of clinicians who will work daily alongside these tools - yet their preparedness, training exposure, and attitudes remain largely uncharacterised.

Purpose of this Study

- Assess AI teaching exposure across UK medical schools
- Evaluate student confidence in imaging interpretation
- Understand student hopes and anxieties about AI
- Identify curriculum gaps to guide future training
- Determine appetite for AI-assisted digital learning tools

METHODS

Study Design

Anonymous national online survey distributed to UK medical students via different student channels. Mixed methods: 5-point Likert scales, multiple-choice, and open free-text questions. Ethical requirements met, fully voluntary and consented.

Participants

n = 50 responses across Years 1–6 of medical school. 80% had completed ≥1 clinical placement. Multiple UK medical schools represented nationally.

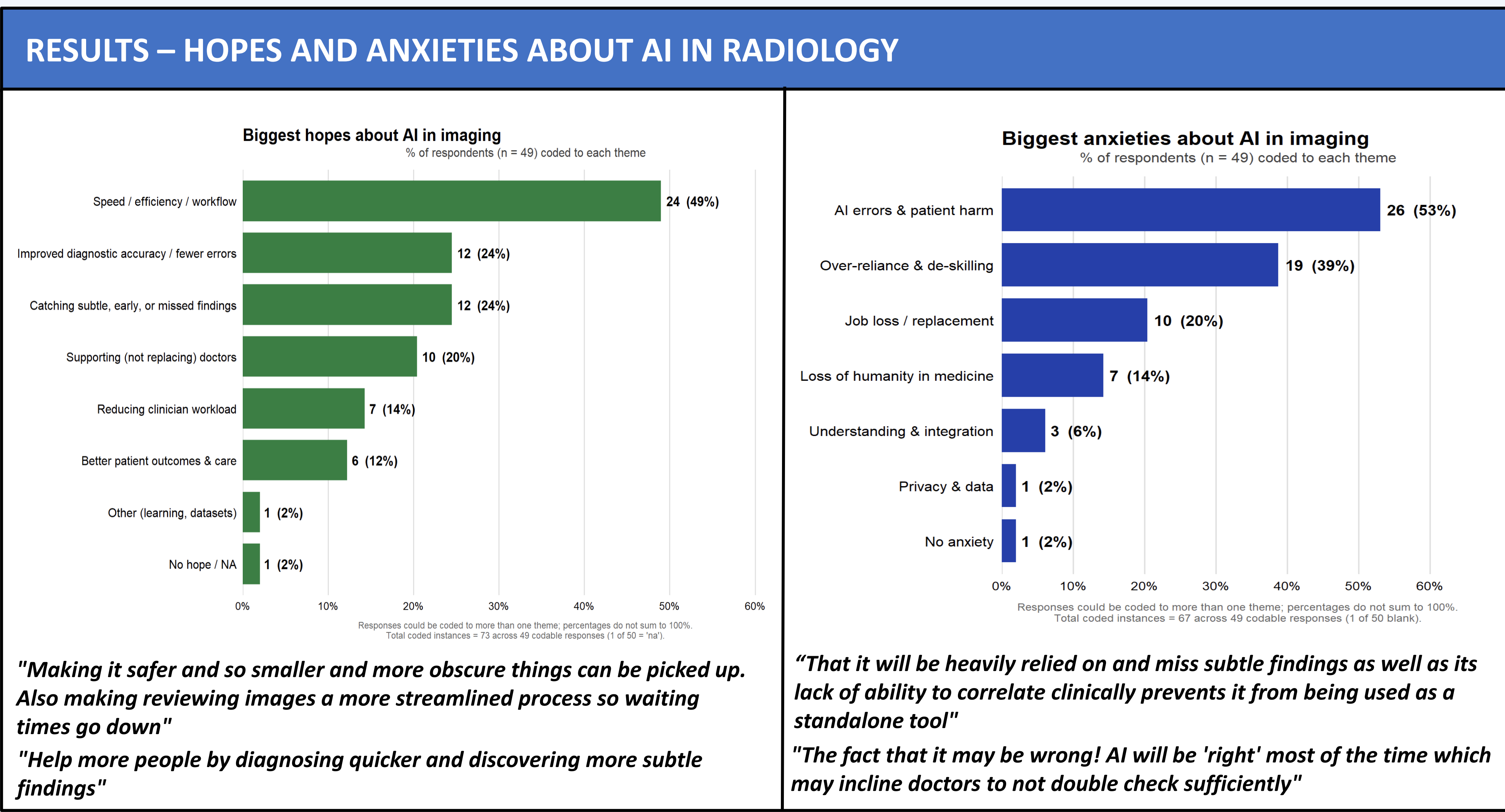
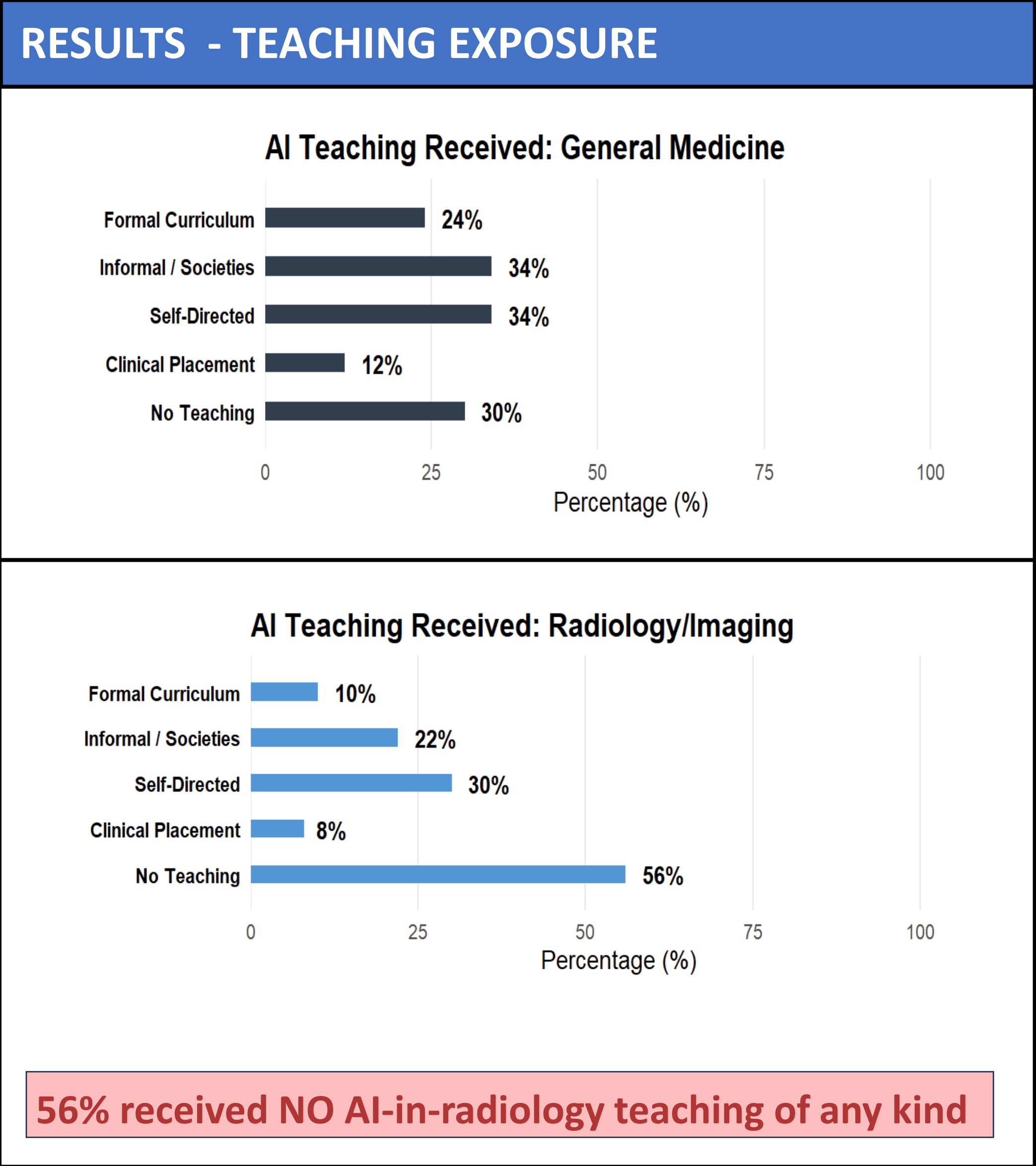
Analysis

Descriptive statistics and analyses conducted in R Studio for quantitative data. Free-text responses thematically coded by lead author.

DATASET DISTRIBUTION

Distribution of Preclinical vs Clinical students.	
Category	Result (%) (n)
Clinical (Y3-5)	46% (23)
Intercalating	6% (3)
Preclinical (Y1-2)	48% (24)

Have students completed a formal clinical placement?	
Category	Result (%) (n)
No	18% (9)
Yes	82% (41)



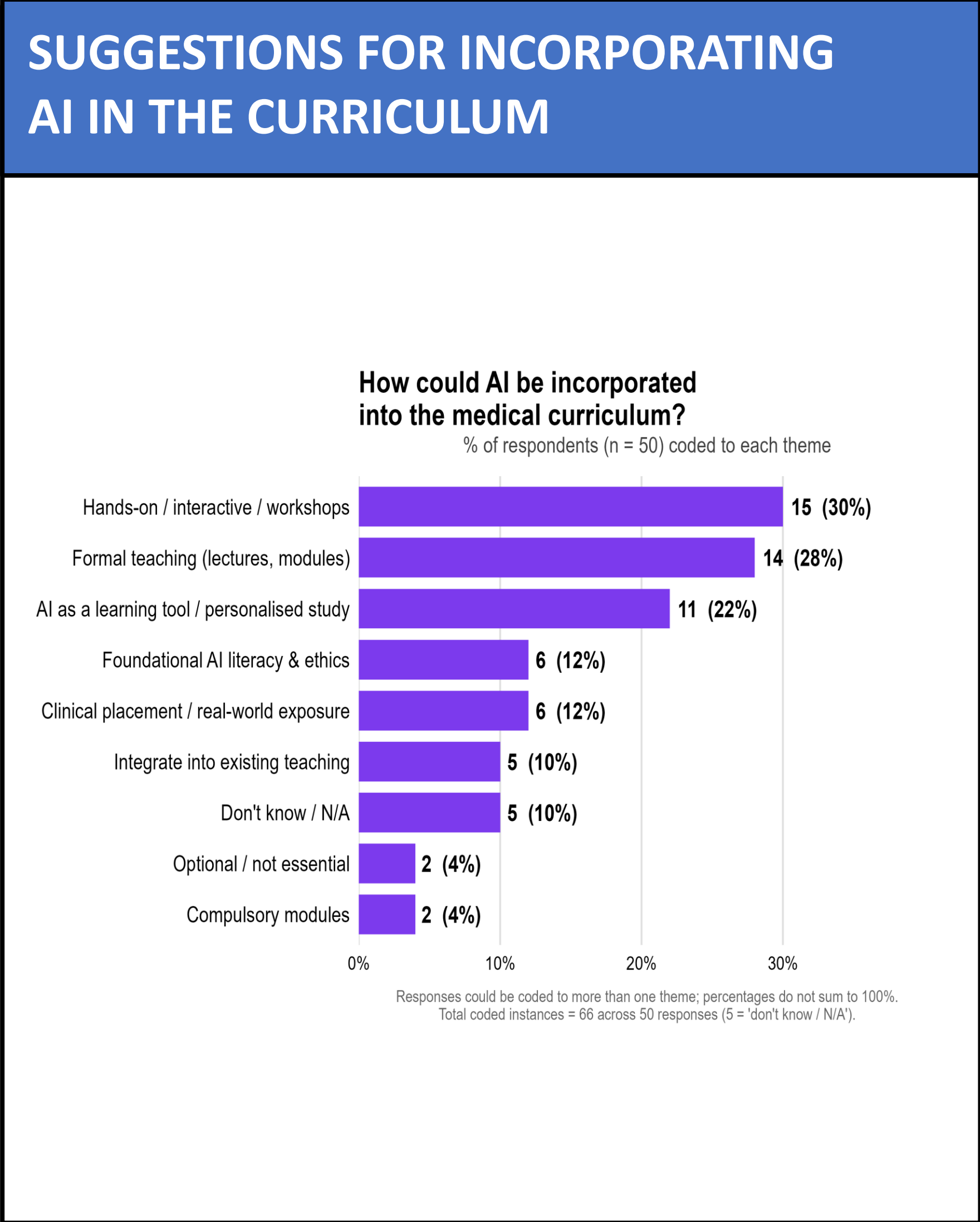
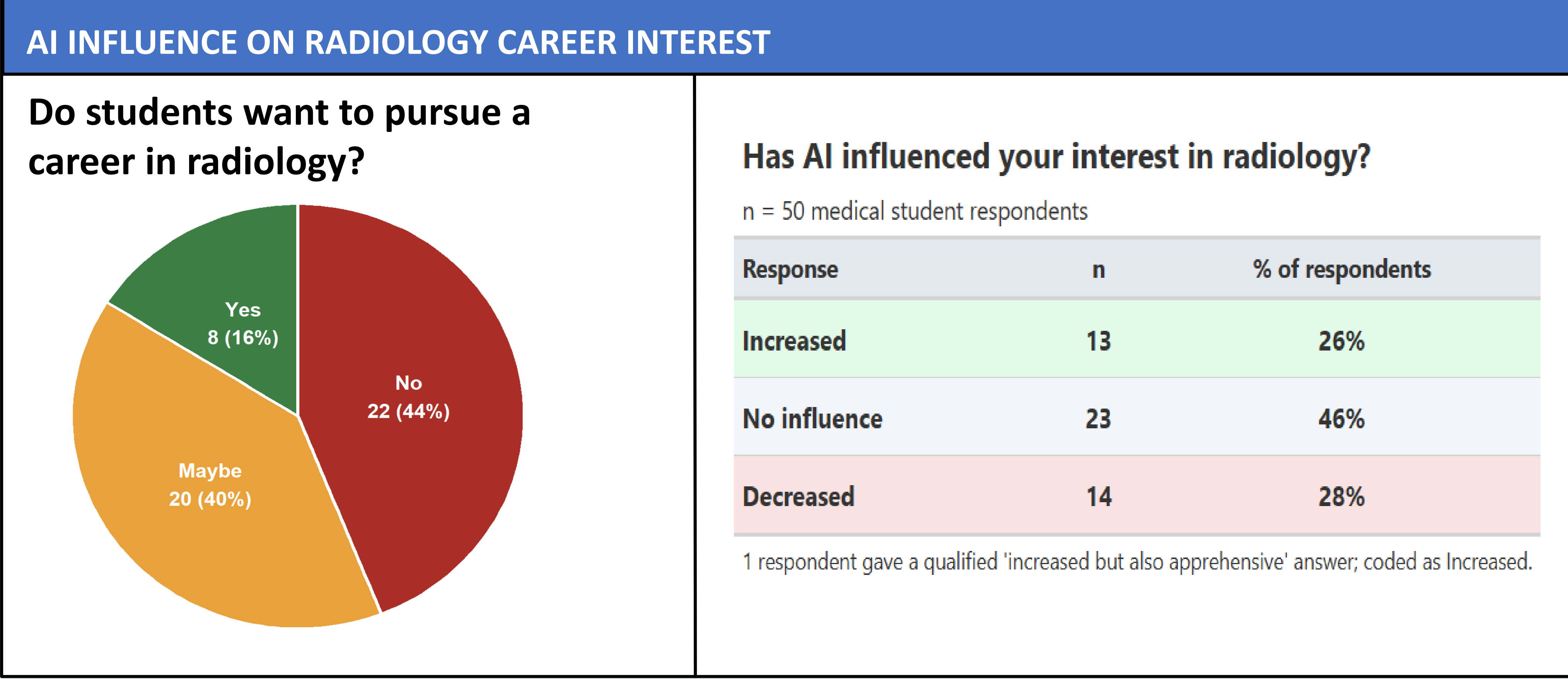
STUDENTS' CONFIDENCE IN INTERPRETING RADIOLOGY IMAGES ACROSS YEAR GROUPS

Mean confidence by modality across year of study (out of 5)

Modality	Year 1	Year 2	Year 3	Year 4	Year 5	Intercalating	Y1-Y5 trend (rho)
X-ray	2.2	2.9	3.4	4.0	4.5	3.7	$\rho = 0.71^{***}$
CT	1.5	2.4	2.4	2.9	3.5	2.7	$\rho = 0.55^{***}$
MRI	1.4	2.2	2.2	2.2	2.5	2.3	$\rho = 0.41^{**}$
Ultrasound	1.3	2.0	2.5	3.0	2.5	1.3	$\rho = 0.56^{***}$

Cell sizes: Y1 n=15, Y2 n=9, Y3 n=13, Y4 n=8, Y5 n=2, Intercalating n=3 (n=49 for CT, 1 missing). Spearman trend test (Y1-Y5 only). Significance: *** p<0.001, ** p<0.01, * p<0.05, ns = not significant.

Mean confidence interpreting imaging increased with year of study across all modalities, suggesting clinical exposure improves familiarity, but persistent gaps support the need for earlier and more structured radiology teaching.



Do current radiology resources meet student needs?

62% No
38% Yes

Would students find value in AI radiology learning tools?

98% of students (49/50)

CONCLUSION AND FUTURE DIRECTIONS

UK medical students recognise AI as an important and increasingly unavoidable part of the future of radiology, particularly for improving efficiency and diagnostic support. However, despite strong interest in AI-assisted learning, many students feel underprepared due to limited formal teaching and concerns surrounding overreliance, ethics, and the changing role of clinicians. These findings highlight the need for earlier, clinically integrated AI and radiology education within medical school curricula. Future teaching should focus not only on the benefits of AI, but also on its limitations, ethical considerations, and safe clinical application