

# Evaluation of a novel artistic learning process (ORDER) for skill development in interpretation of clinical imaging

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## 1. BACKGROUND

ORDER = Observe, Reflect, Draw, Edit, Repeat

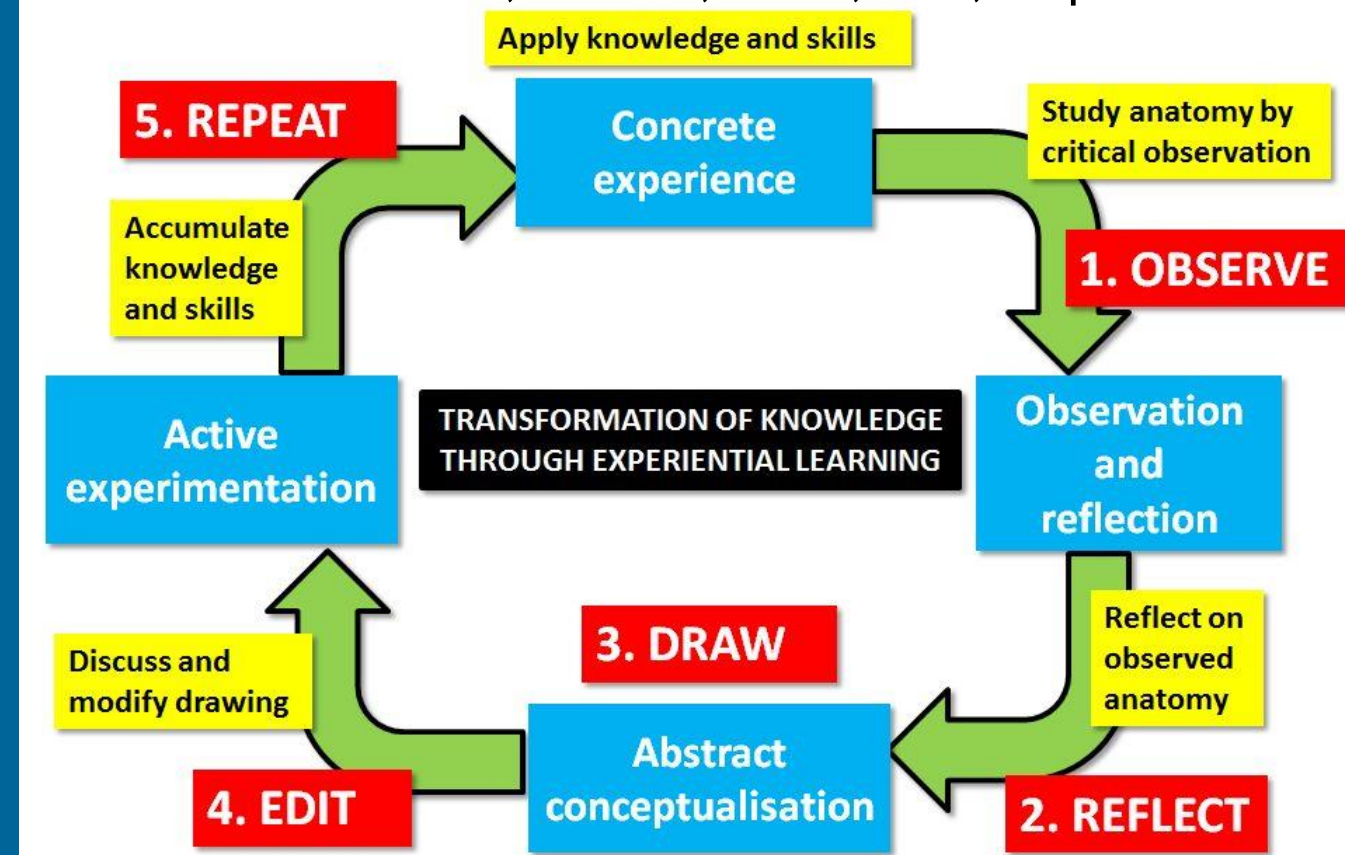
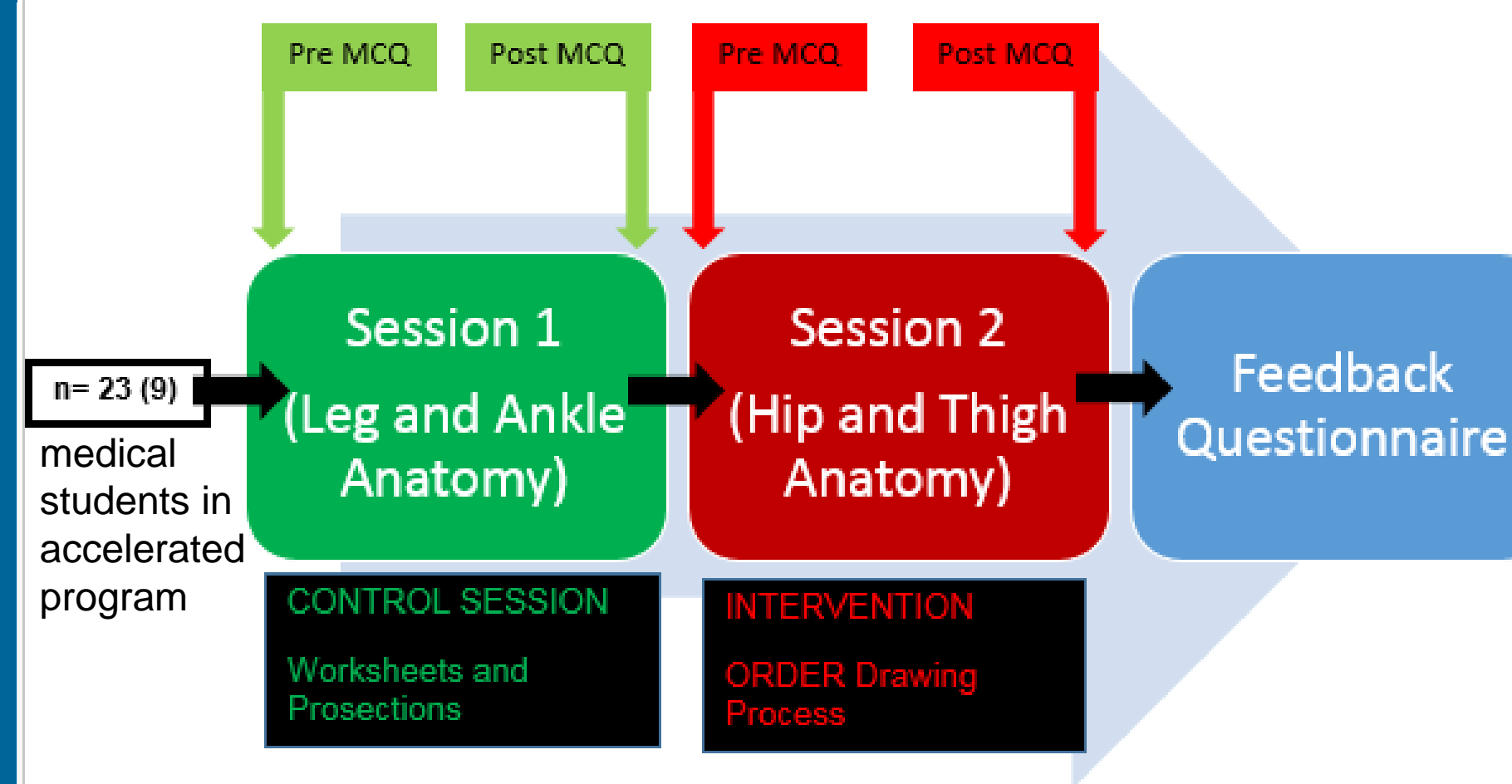


Figure 1: The ORDER Cycle

## 2. AIMS

- Analyse results from previously conducted pilot study
- Conduct a literature review on clinical imaging teaching in medical school
- Design a study using artistic learning methods to enhance the teaching of clinical imaging
- Create an evaluation tool to assess the effectiveness of proposed design

## 3. PILOT METHODOLOGY



## 4. PILOT RESULTS

- Only 9 students completed all four MCQ tests, the feedback questionnaire and consent form
- Only 2 students improved in their learning overall by using the ORDER drawing process

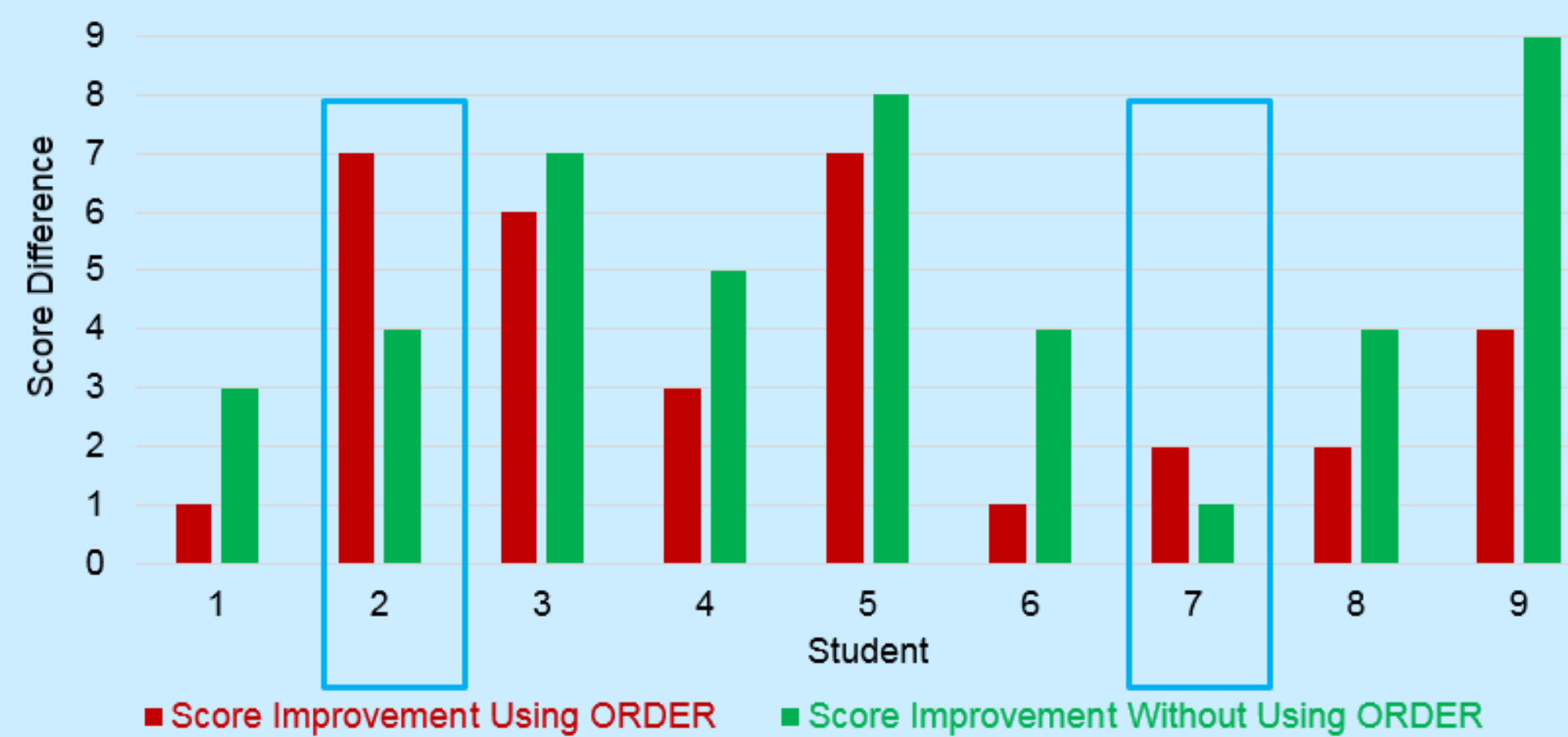


Figure 2: Improvement using ORDER vs. Control

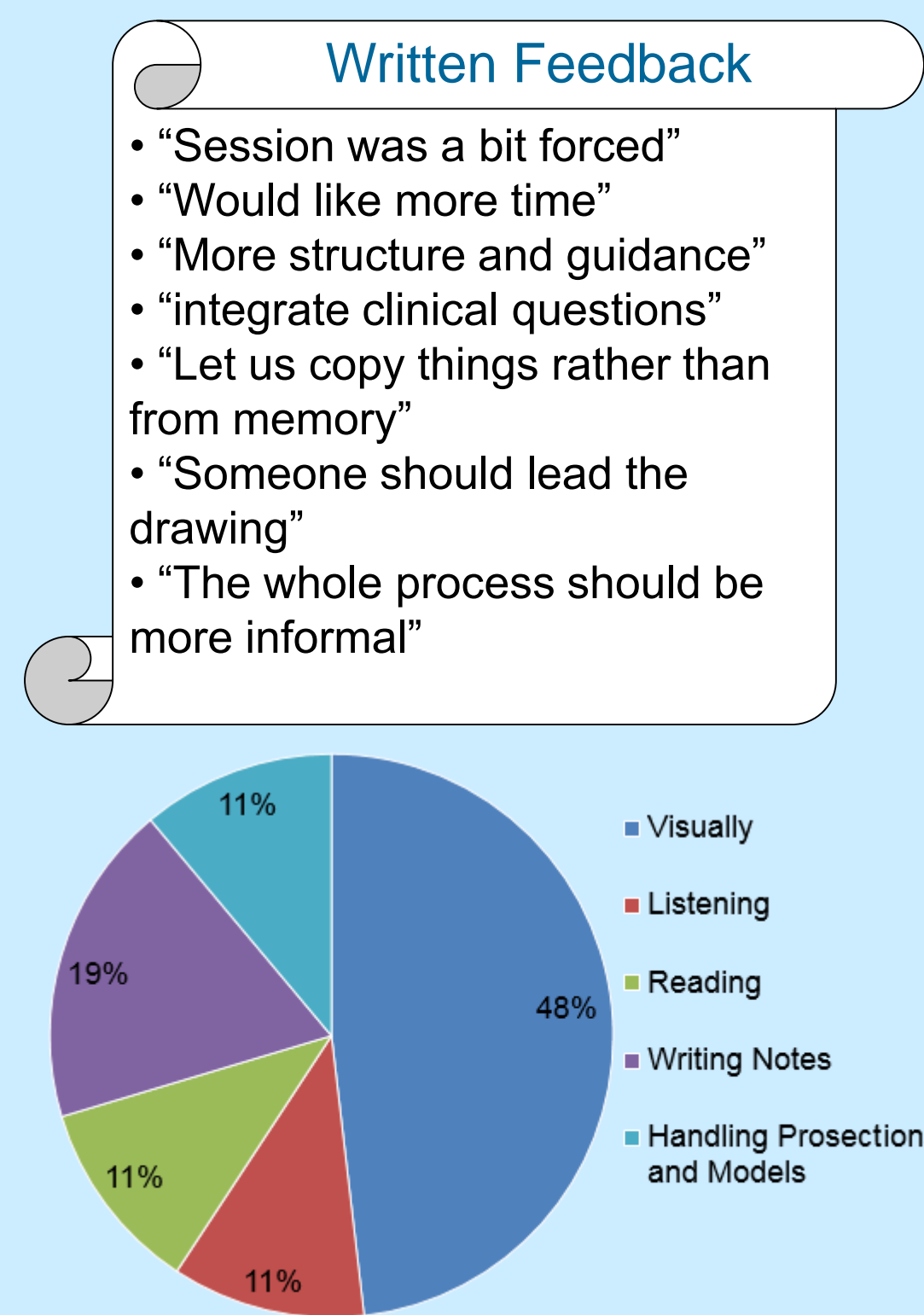


Figure 3. Method Preferred for learning Anatomy and Clinical Imaging

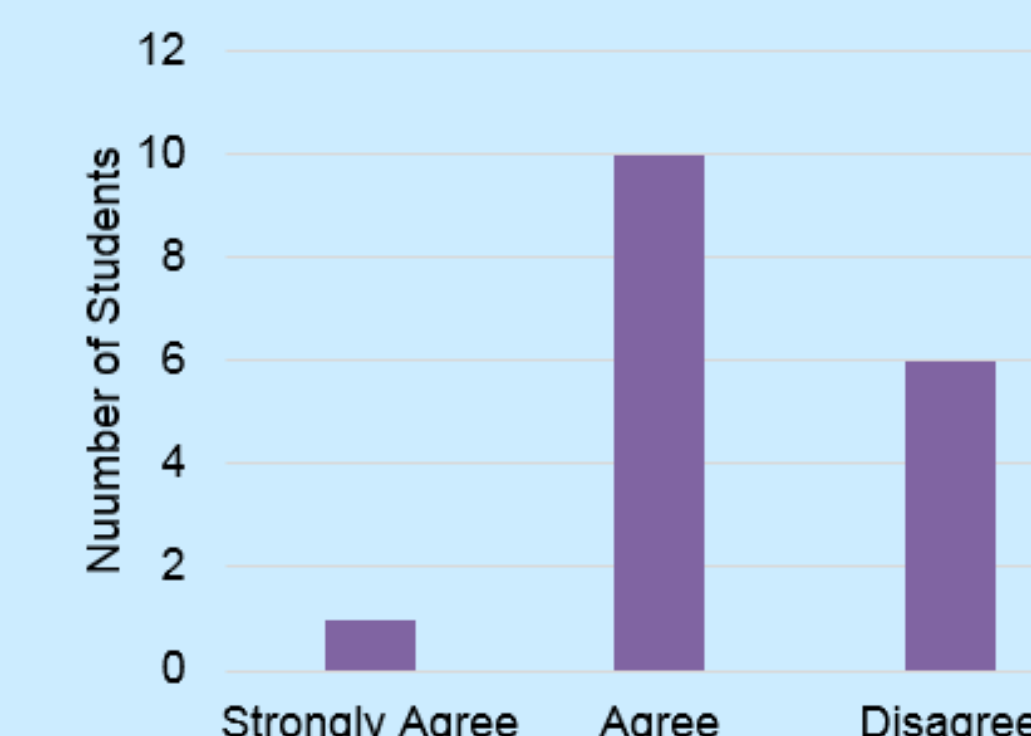
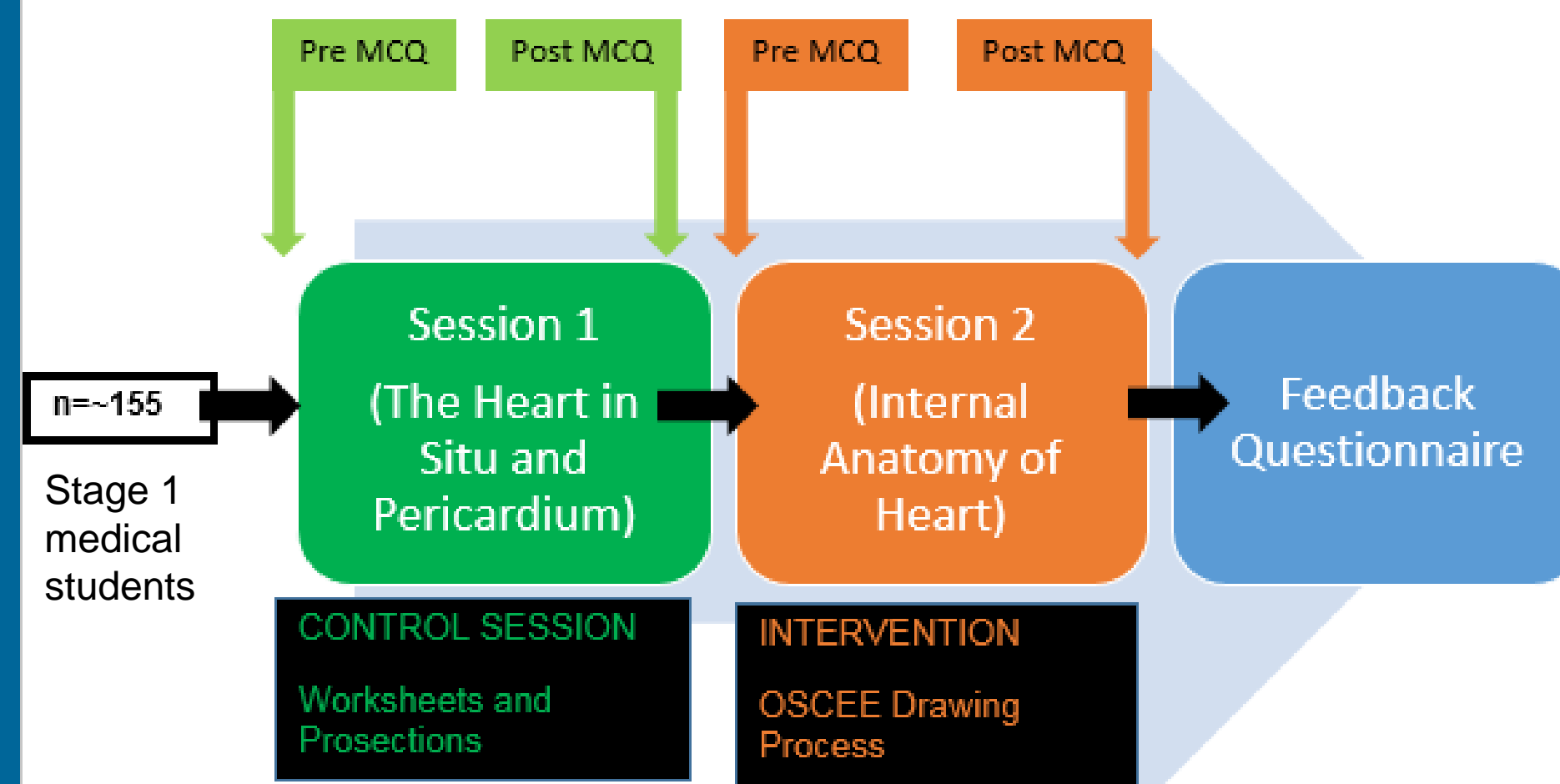


Figure 4. Students would Recommend Using the ORDER Process to Future Anatomy Students

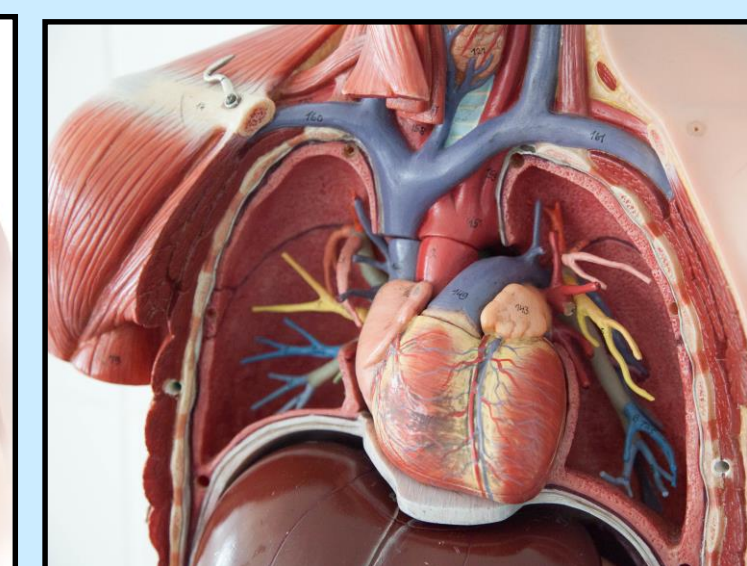
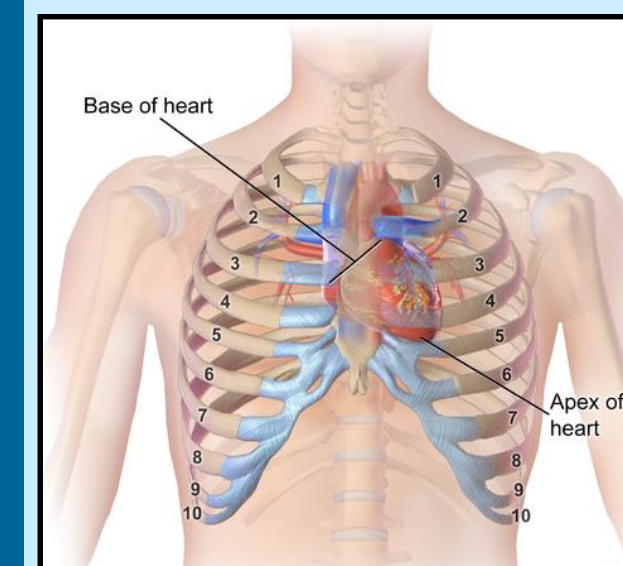
## 5. SESSION DESIGN & EVALUATION METHODOLOGY



OSCEE = Observe, Sketch, Compare, Edit, Emphasize

### 1. Observe and 2. Sketch (8 minutes)

- Use anatomical models, prosections, imagination
- Sketching is led by demonstrators/teaching staff

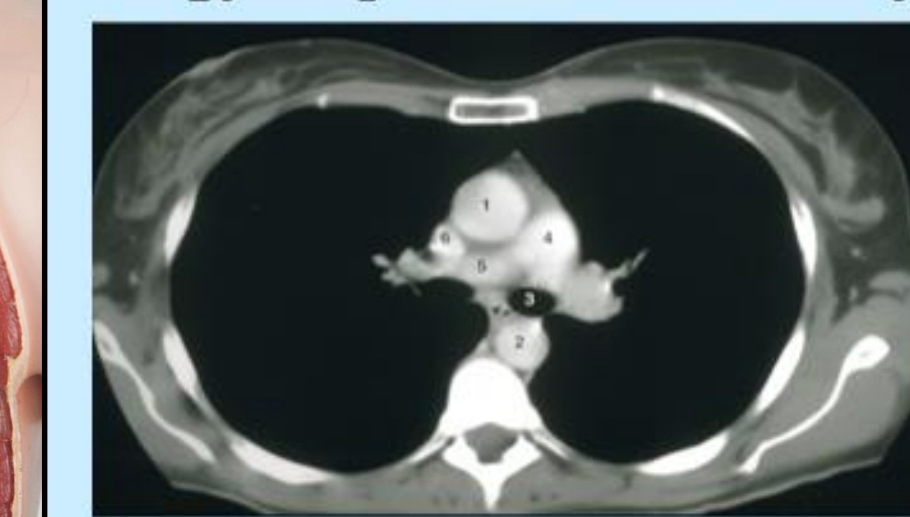


### 3. Compare (2 minutes)

- Small groups

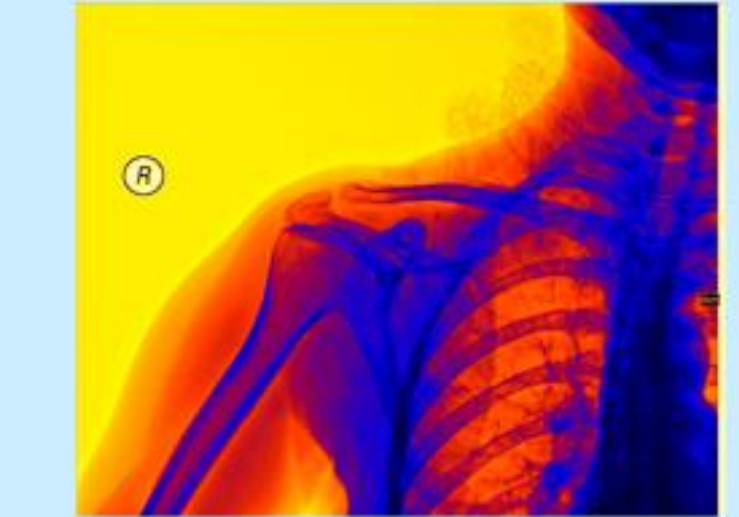
### 4. Edit (10 minutes)

- Copy image of CT scan or X-Ray



### 5. Emphasize (10 minutes)

- Small groups/self study
- Label
- Colour



MCQ's

- 15 questions in each set
- SBA of 5 possible options
- Same questions given Pre and Post teaching session

Feedback questionnaire

- Likert Scale
- Free text space for comments and suggestions

## 6. LITERATURE REVIEW

Methods to improve learning anatomy:

- Provide opportunities for reflection<sup>1-2</sup>
- Use visual aids<sup>3</sup>
- Use colourful diagrams<sup>4</sup>
- Repetition<sup>5</sup>
- Small group teaching<sup>6</sup>
- Drawing/sketching<sup>7</sup>

## 7. CONCLUSIONS

- Lack of early exposure to clinical imaging teaching in medical school, especially Newcastle University<sup>9</sup>
- Limitations of pilot study make it difficult to assess the effectiveness of the ORDER process
- OSCEE drawing process is a modified version of ORDER, taking into account feedback from pilot study and findings from literature review
- OSCEE study will take place spring 2015

## 8. REFERENCES

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