

Touch, sight, observation and drawing in anatomy teaching

Evaluating haptico-visual observation and drawing (HVO&D) as an educational approach

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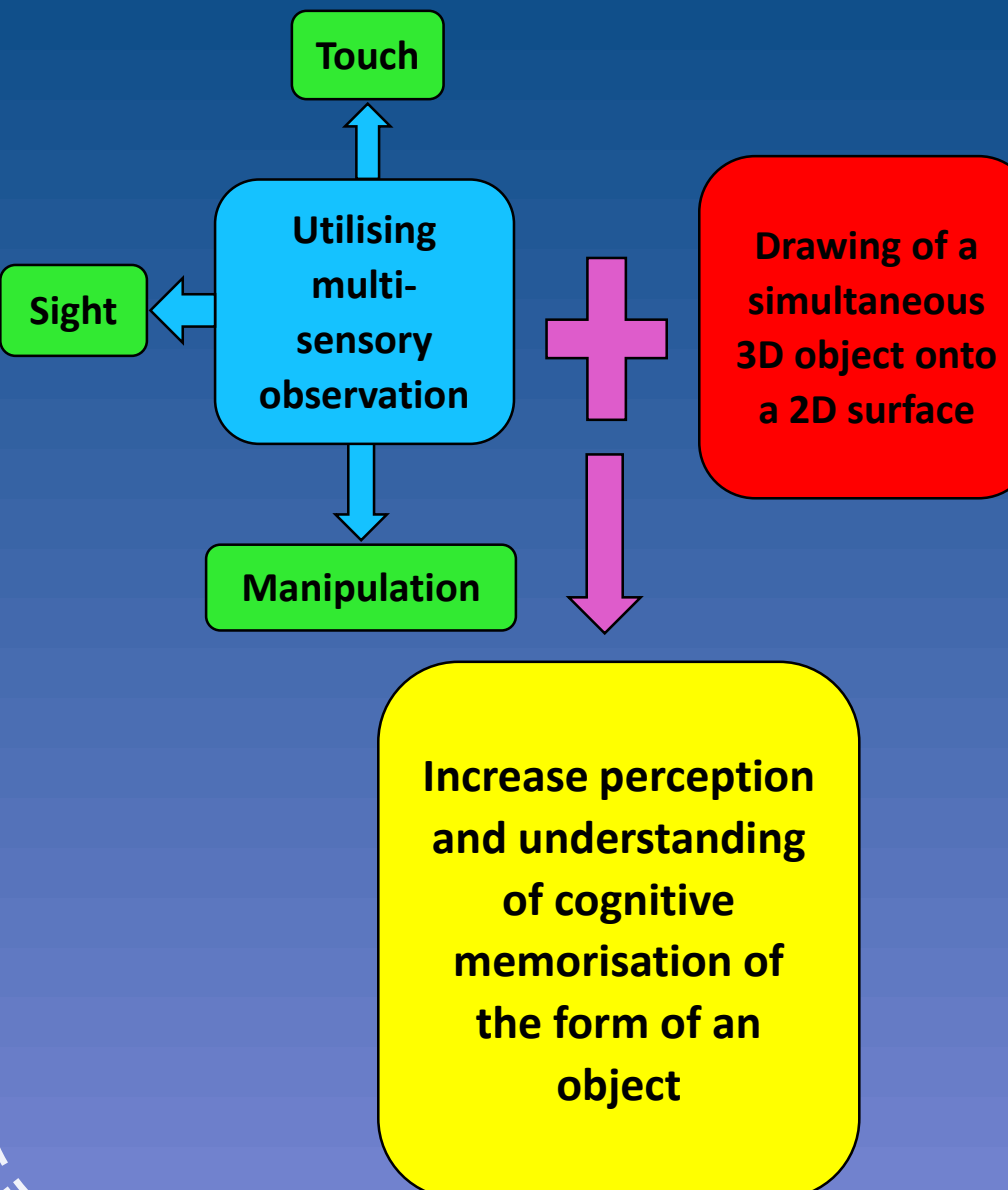
1: School of Medical Education, Newcastle University, UK.

2: University of Cape Town, South Africa, 3: Lateral Leap Drawing, Cape Town, South Africa

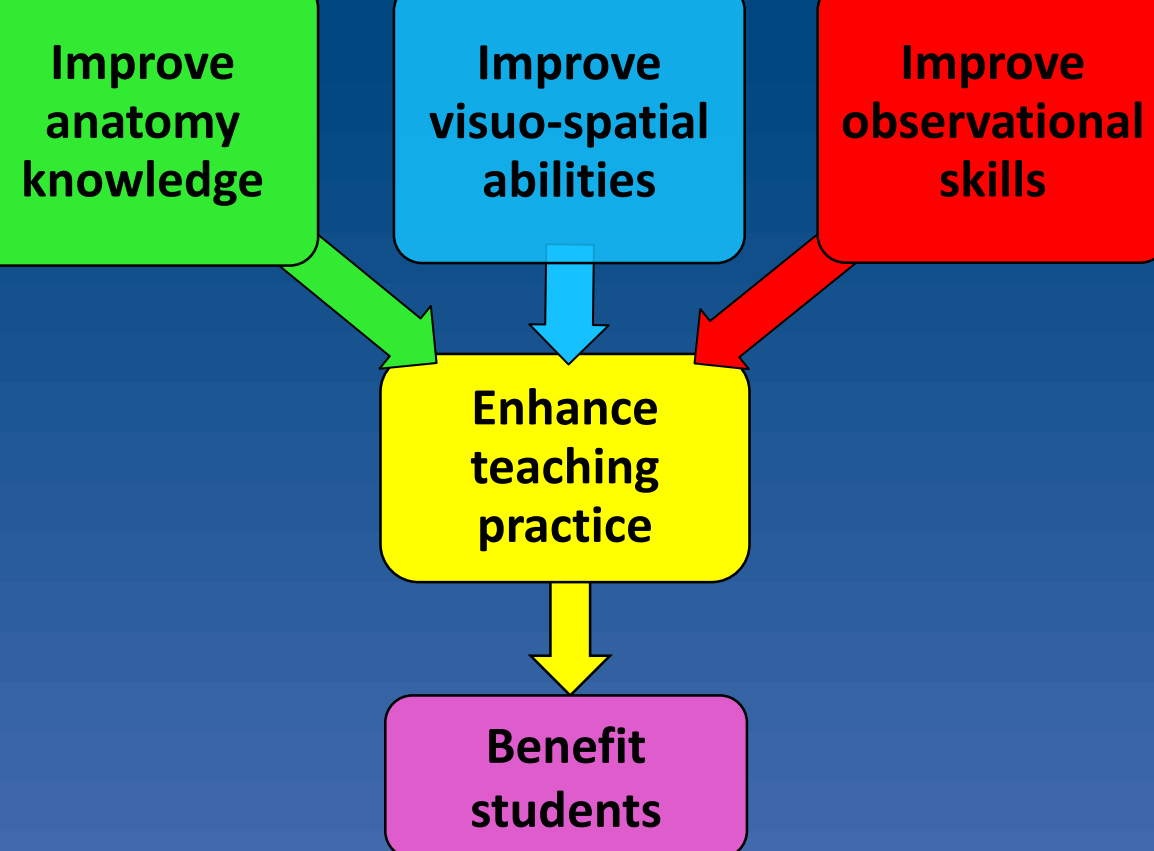


HVO&D

Combination of observation, touch, visualisation and drawing



Aims



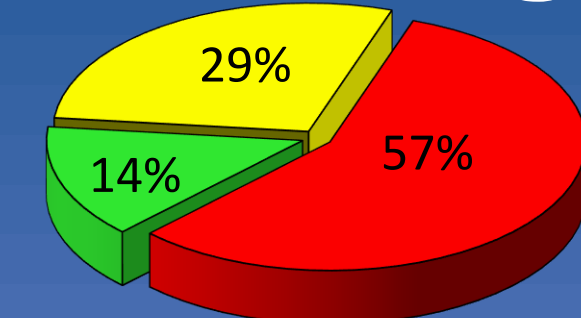
Rationale

Strong basis for important relationship between development of observational skills and use of artistic learning approaches^[1-8]

Methods

- HVO&D workshops for staff and students
- Mixed-method survey and experimental approach
- Pre-post workshop tests, Likert type, free text questionnaires and focus group carried out
- Statistical and semi-quantitative thematic analysis

Current teaching style

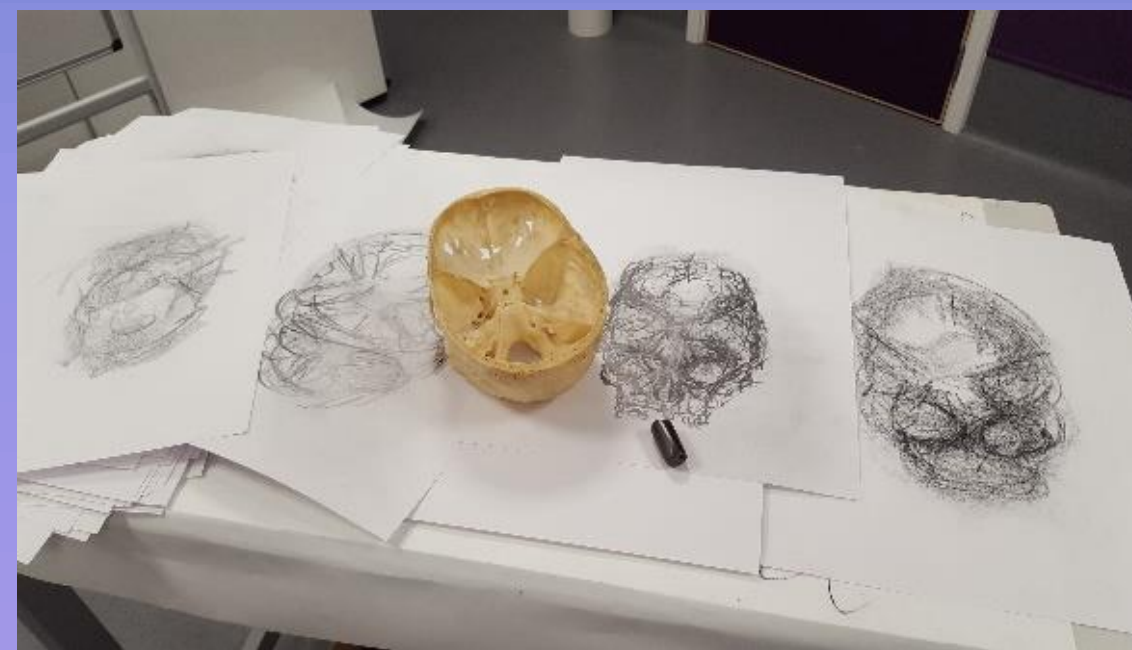


- I use my drawing as my major teaching approach
- I use a variety of techniques equally in my teaching including drawing
- I use drawing as a minor approach to support my major teaching strategies
- I rarely or never use drawing in my teaching

Educators currently use several approaches equally when teaching anatomy

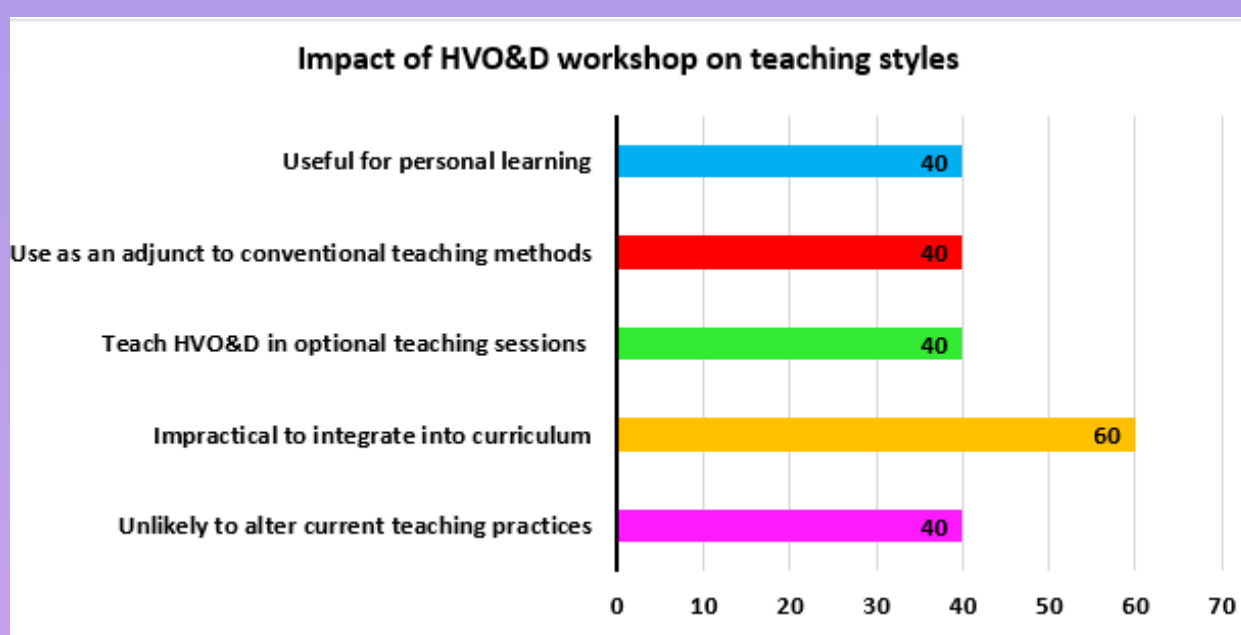
Workshops and tests

HVO&D workshops were facilitated by Leonard Shapiro and were held for anatomy educators at Newcastle University, May 2017 and for medical students at University of Cape Town (UCT), August 2017. All tests and questionnaires were designed and implemented by Kathryn Bell based on previous research conducted in Newcastle University.

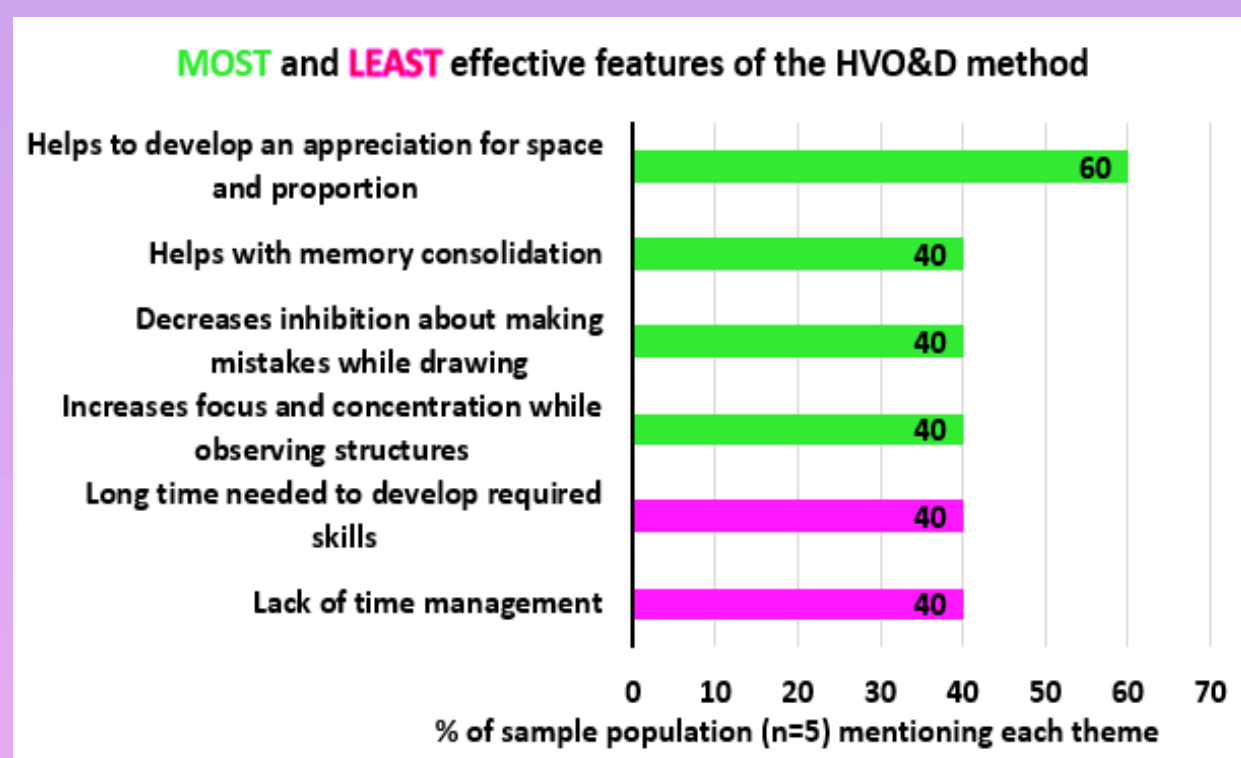


Participants used HVO&D to appreciate the form of anatomical structures such as the skull

Educator viewpoints



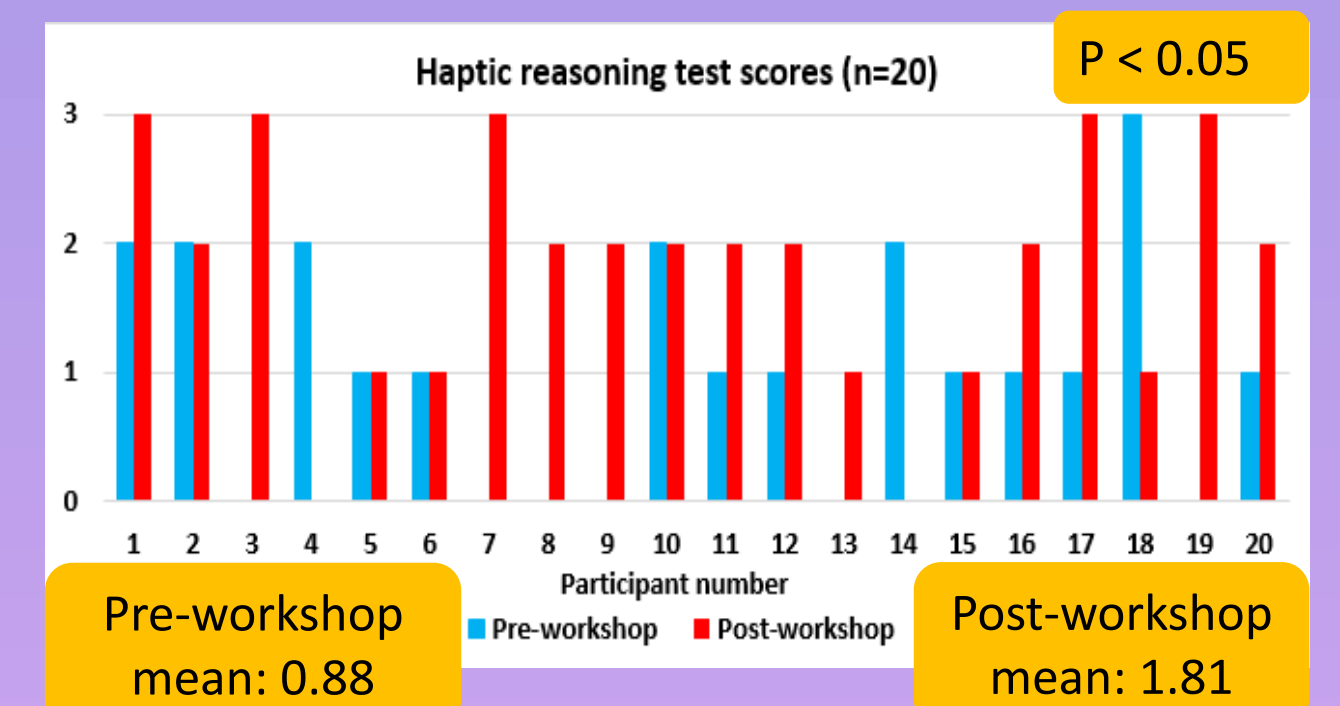
Educators (n=5) perceive educational advantages but identify potential challenges in curricular integration



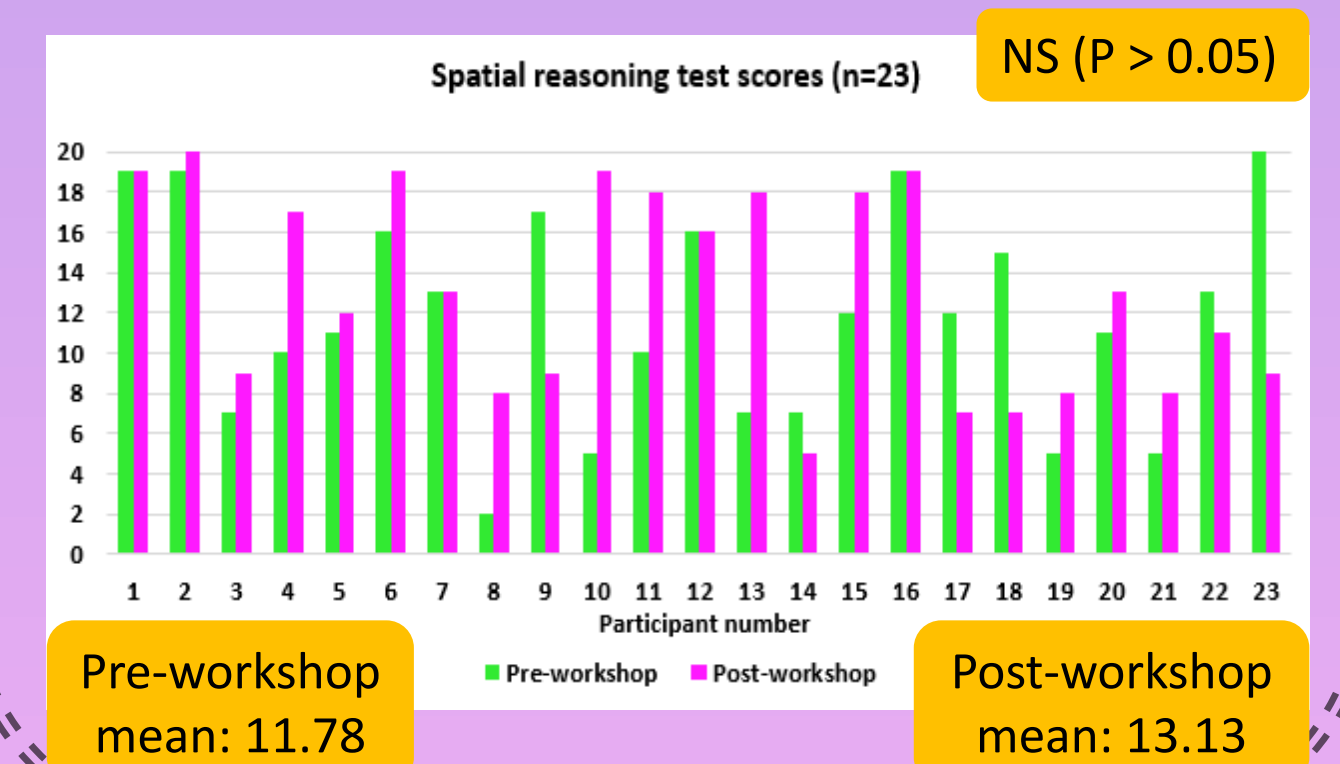
Focus group

Theme	Responses
Challenging	"It was a challenge to not care what the drawing looked like" "It was difficult to associate myself with what I was trying to achieve at the end" "Everything that I had learnt yesterday was so nebulous and I couldn't grasp a hold of it"
Illuminating	"(I) tried to take knowledge of structures away from the anatomical and clinical (point of view) to more of an innate understanding of the structures" "(It) highlighted that the process of making the drawing was the point of the drawing"
Useful	"It was really useful, taking the time to feel inside the structures before putting that down on paper" "(HVO&D) supplemented my anatomical knowledge" "The spatial exploration part was something I can't not know now even though I thought I knew it"

Experimental findings



Significant increase in pre-post haptic reasoning test scores of educators and students (Combined data from Newcastle and UCT workshops)



Summary

- HVO&D could enhance anatomy learning through improving haptic reasoning
- Aim to repeat with larger sample following test and questionnaire validation
- Intend to explore theoretical basis and evidence supporting impact of HVO&D process on learning
- Will investigate potential for combining ORDER⁽⁹⁾ and HVO&D

Acknowledgements

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