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# Games with Aims

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**Aim:** To highlight how basic games are used as part of the learning process in a post-graduate ultrasound programme at City, University of London.

A “flipped classroom” approach to teaching and learning is utilised within the Medical Ultrasound programme. On-line lectures are used to prepare for interactive classroom learning using simulation and educational games<sup>1</sup>. Literature suggests that active learning using games, group activities and simulation can lead to deeper learning<sup>2</sup>. As technology advances, digital games are being developed<sup>3</sup>, although simple games can also be effective<sup>4</sup>, without the associated costs. Basic games and simple simulation allow learners to develop the skills which can be gained from digital games, such as the discovery of new understanding, making judgements and learning from mistakes<sup>2</sup>.

The games used within the programme, allow learners to put their learning into context<sup>4</sup>, make new connections and apply theory to practice. Some of the games used are highlighted below. During the games and simulation, staff can determine areas that learners find challenging and tailor tutorials to these aspects of the course. Learning using games can also increase problem solving skills<sup>5</sup>, which are essential for ultrasound practice.

## Card games and Pictionary:

Matching a pathology with relevant clinical symptoms and an appropriate imaging modality, enables learners to consider the clinical presentation of a wide range of pathologies. Drawing images of pathology can help learning

**Monopoly:** Used for small group revision. The chance cards have ultrasound images with pathology to identify or questions to be answered.

**Bingo:** Used in final revision sessions, images are projected onto the screen to allow learners to identify pathology and match it to their bingo card. To keep the focus on learning and engagement prizes are available, such as pens and chocolates.



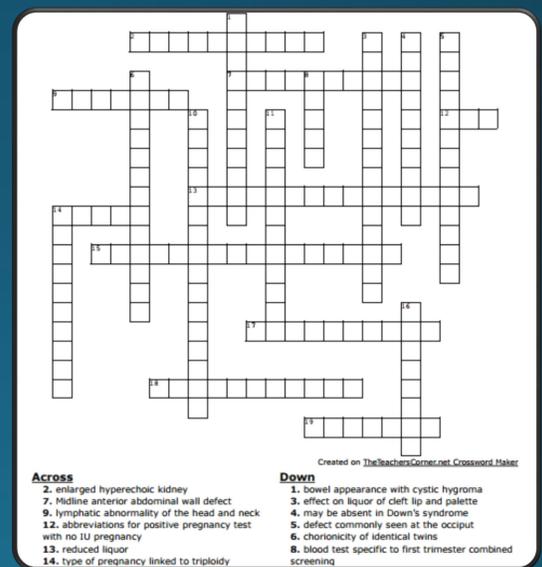
## Student Feedback

- *“Games to revise made it fun and informative” and “kept you interested and on the ball”*
- *“getting students involved and interactive” and “takes into account all learning styles”*
- *“link theory to practice” and “encourages students to look deeper into subject”*
- *“the opportunity to discuss personal experience from the departments with other students”*
- *“The course is highly interactive, practical and simulating and I believe provides the student sonographer with the necessary skills, knowledge and experience to succeed”.*
- *“I felt this helped me feel more responsible for my learning”*
- *“I found the quality of teaching and support within the classroom environment meant that learning was fun”*
- *“...humour and play into adult learning that encourages students to explore learning in a different way.”*
- *“good fun”...“useful for clinical practice”*

**Crosswords:** A crossword was introduced to check both knowledge and spelling

## Conclusion

Learning should be fun. Evidence suggests that the use of well planned games, which are focused to the learning outcomes, can improve engagement, inter-professional learning, depth of knowledge and application of theory to practice. Games do not have to be complex or expensive. In our experience simulation and simple games have increased interaction, student involvement in the learning process and collaborative learning.



## References

1. Harrison, G. and Harris, A. (2014) Postgraduate Medical Ultrasound Programme: Have we Flipped? *Learning at City Journal*, 4 (2): 25-38. <http://openaccess.city.ac.uk/4894/>
2. HEA (2008) *Active Learning: Quick Guide*. Higher Education Academy. Available at [www.heacademy.ac.uk/sites/default/files/active-learning.pdf](http://www.heacademy.ac.uk/sites/default/files/active-learning.pdf)
3. Panoutsopoulos, H. et al (2014) *Digital Games as Tools for Designing and Implementing Pedagogical Innovations: A Review of the literature*. In Gosper, M and Ifenthaler, D. (2014) *Curriculum Models for the 21st Century*. Springer.
4. Robison, F. (2014) It's a game! Evaluation of a classroom game to enhance learning in an introductory counseling course. *Innovative Teaching*, 3 (10) doi: 10.2466/07.08.IT.3.10
5. Sung, H. Hwang, G. and Yen, Y. (2015) Development of a contextual decision making game for improving students' learning performance in a health education course. *Computers and Education*. 82, pp. 179 – 190.