

## **Innovations in Teaching - Gamification in Pharmacology / Therapeutics Education**

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**Background and Aims:** Game designers and academics argue that games capture the player's attention and engage them in complex thinking and problem solving (1). Supplementing formal teaching with informal learning can not only enhance the recall of factual knowledge but also the advancement of general skills. Our aim was to produce games that would support and enhance learning in pharmacology and therapeutics.

**Summary of work and outcomes:** Both authors initially brainstormed ideas of games that would increase motivation and engagement with learning about medicines. We then held a workshop at a Healthcare professional education conference in May 2016 to gather more ideas. The following ideas have been proposed, some of which have been piloted with medical and pharmacy students.

*Blockbusters* - Based on the television gameshow hosted by Bob Holness, students are asked questions about drugs to complete a path across a game board of hexagons.

*Just a Minute* - Against the clock, four students - representing panellists akin to the Radio 4 radio comedy - have to talk for sixty seconds about a given drug of pharmacological principles "without hesitation, repetition or deviation".

*Pharmacological Top Trumps* - Played in pairs, this version of the popular type of card game has been designed by the authors and contains numerical data on medicines (e.g. Maximum daily dose, Elimination half-life). Playing in turns, students try to 'trump' and win the opponent's card quickly learning about the properties of the medicines.

**Discussion:** Informal feedback from healthcare professional students is positive about the innovative games, but thus far no formal evaluation has taken place. There is a lack of high-quality research to explore the impact of educational games on patient and performance outcomes (2). It is important that we understand the impact on students' education as gaming has the potential to have a detrimental effect if students spend time 'playing' rather than 'working'.

**Conclusion:** Gamification allows students to engage with pharmacology and therapeutics, learning information about medicines in fun way. Grown up pharmacologists can also indulge in such games and enjoy themselves. We do!

**References:** (1) McClarty LK *et al.* (2012). A literature review of gaming in education: Research Report. Always learning. Pearson. (2) Akl EA *et al.* (2013). Educational games for health professionals. Cochrane Database of Systematic Reviews 3: CD006411.