

# Gamification of Entrepreneurship and Innovation Pedagogy with Escape Rooms

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Dr Ali Ahmad and Kim Watts

# Escape Rooms

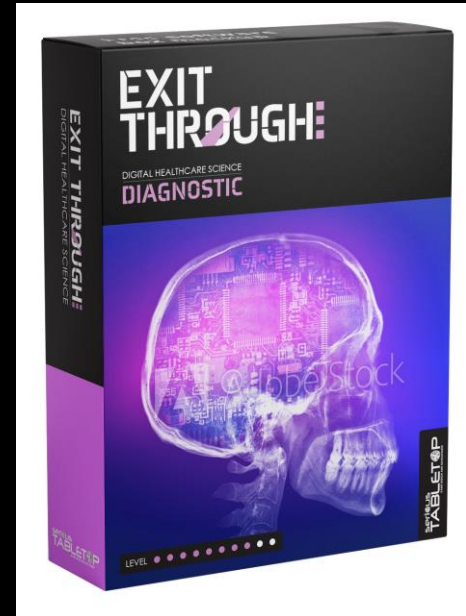
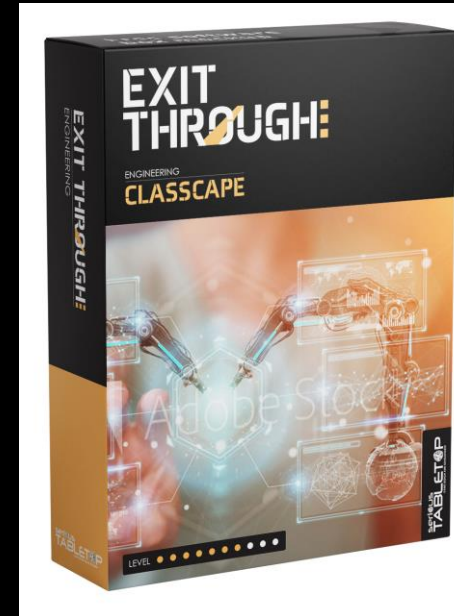
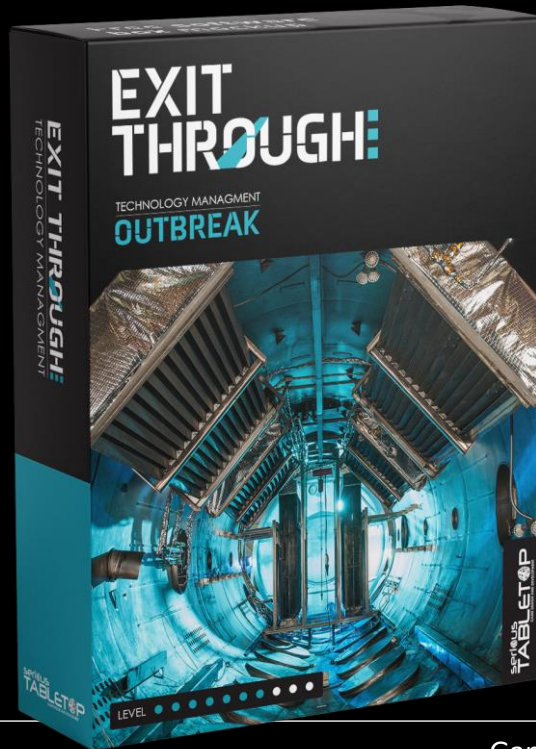
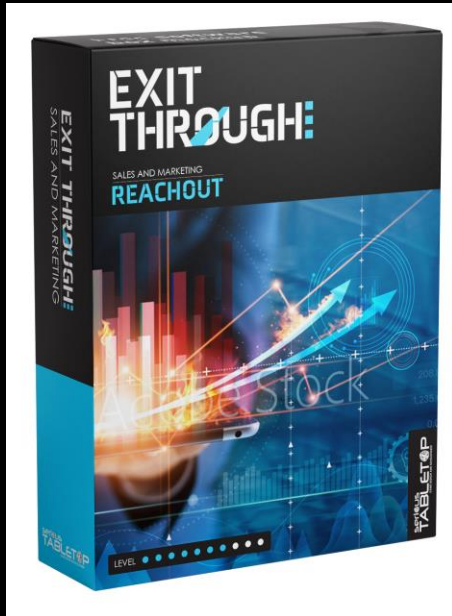
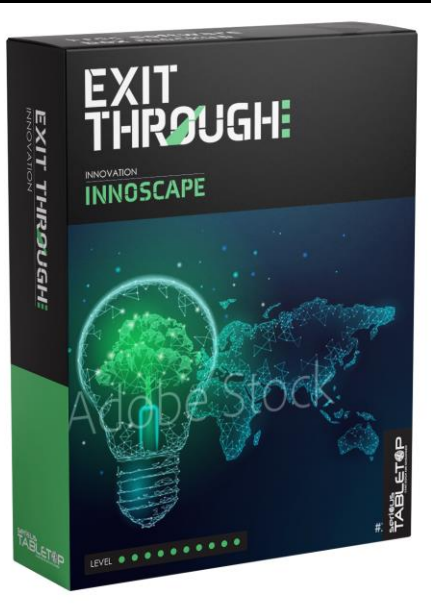
- **Definition:** a team of players cooperatively discover clues, solve puzzles and complete tasks in order to progress through challenges to achieve a specific goal
- **Uses:** team building, an entertaining way of delivering technical and non-technical skills, to read and acquire or refresh knowledge (Guckian et al. 2020)
- Escape Rooms are a useful gamification strategy in education and provide a new alternative to educators (López-Belmonte, 2020)





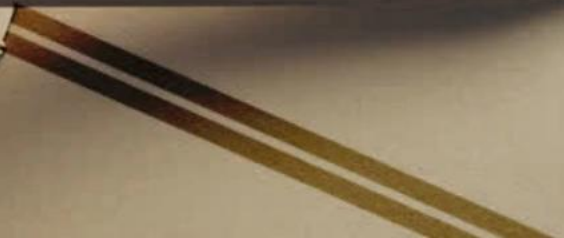
# Escape Room Experiments at WMG

## EXIT THROUGH:





always smile!  
PONY BROWN



F



# THE RULES!

You can complete the puzzles in any order, however after completing each one you must take it to Professor Positivity to reveal a unique digit...

The four digits will provide you with the code to access your safe (there's a space to write them down on the inside of this booklet) and you'll be able to complete the final challenge.

But watch out, if you get a question wrong Dangerous Dr Destruction will deduct 5 minutes so take your time, but not too much! You really don't want to be left in his devious, dangerous hands...

## QUICK! GET OUT OF THE CLASSROOM!

SERIOUS  
TABLETOP GAME DESIGN  
AND DEVELOPMENT

You have just 40 minutes to solve the four puzzles overleaf and get out of the classroom before Dangerous Dr Destruction takes over and locks you in his crazy class forever!

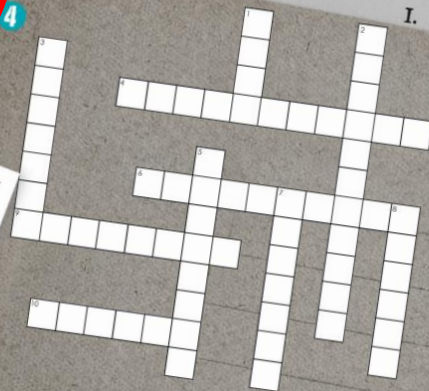
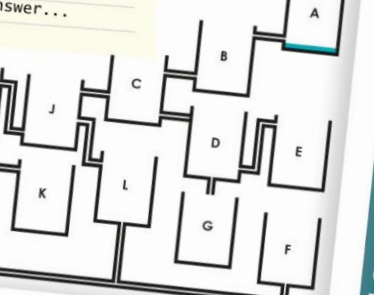
# THE FOUR PROBLEMS

Below are the four problems for you to solve. You'll find further instructions on the back page of this brief. But be quick! Remember you've only got 40 minutes!

1. A 60W light bulb and a 100W bulb are placed one after the other in a circuit.

The battery's emf is 230V. Which one glows brighter? Assume the resistance of the bulbs to be ohmic.

2. Which one will fill up first? Circle your answer...



Across

1. 4 A(n) \_\_\_\_\_ process is the one that is able to take place in a system left to itself. No external action is required to make the process go, although in some cases the process may take a very long time.

2. A process in which a system releases heat to its surroundings is called a (n) \_\_\_\_\_ process.

1. \_\_\_\_\_ is a thermodynamic quantity that is the sum of the internal energy plus the product of the pressure and the volume.

Down

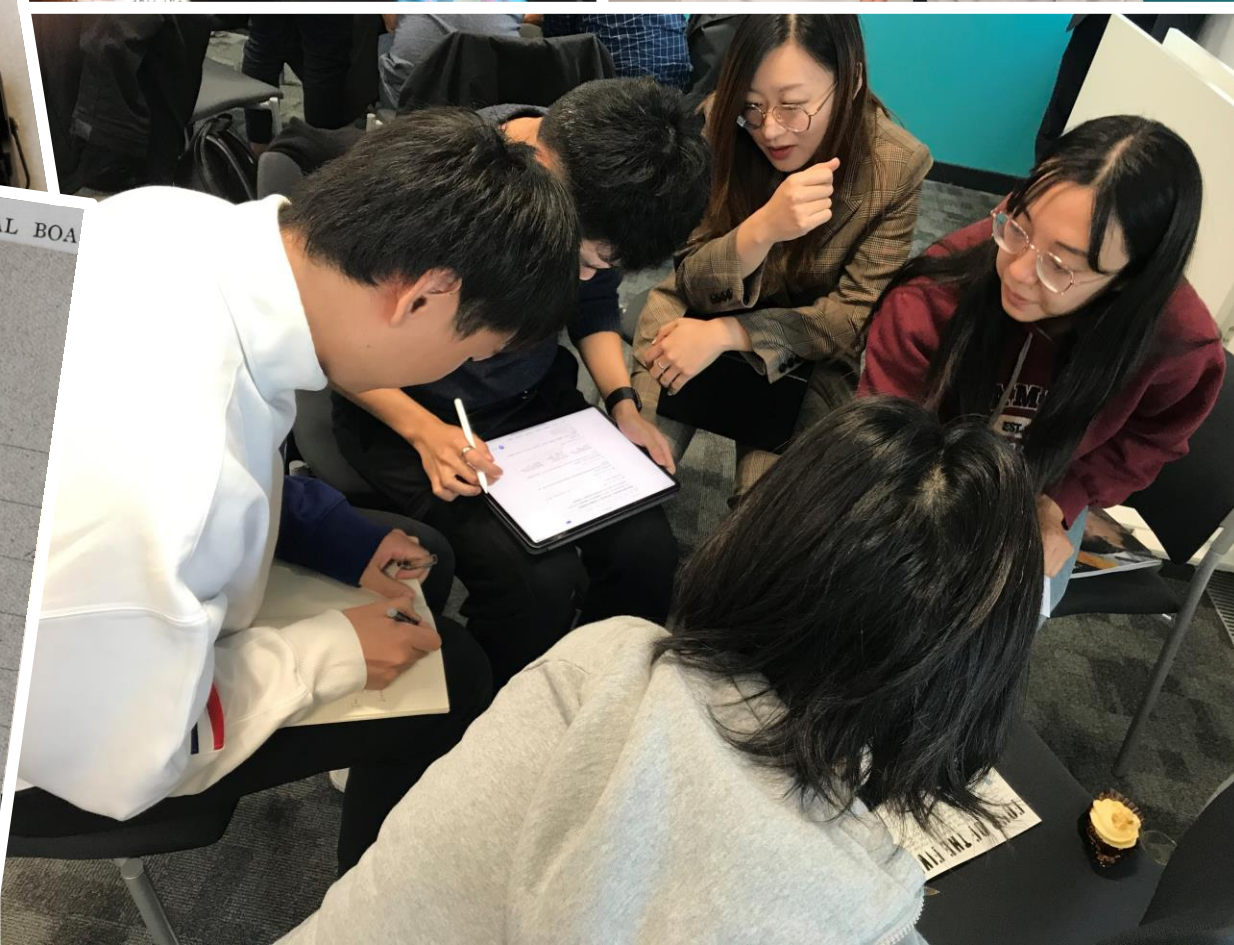
1. \_\_\_\_\_ is a transfer of thermal energy as a result of a temperature difference.

2. A (n) \_\_\_\_\_ is an apparatus that measures the evolution of heat.

1. The \_\_\_\_\_ is the quantity of heat required to change the temperature by one gram of water by one degree Celsius.

2. To drive a non-spontaneous reaction forward, one of the techniques applied is through \_\_\_\_\_ the thermodynamically forbidden chemical reaction with a thermodynamically spontaneous reaction.

Dangerous Dr Destruction





**BREAKING NEWS**

PharmaLogic



# PharmaLogic

## Challenge ONE COMMUNICATION



You have three chances to relay the Lego structure you see to your team mates – is your communication clear enough?

## Challenge TWO ATTENTION TO DETAIL



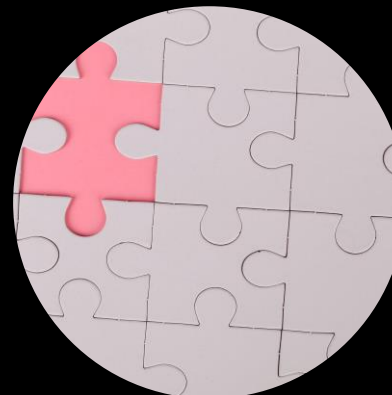
Can you follow step-by-step guidance to produce the required solution?

## Challenge THREE STAYING AHEAD



Ethical internet research is key to finding the answer to this challenge...

## Challenge FOUR THE PRESSURE IS ON



It's time to stand back and take a look at the bigger picture – can you successfully systematize chaos?

## Challenge FIVE PERFECTING THE NARRATIVE



Pharmalogic's value proposition needs identifying and communicating to the chosen advertising agency...

## Resources Needed

- Lego
- Puzzles
- Paper squares cut to size
- Pens, paper, coloured paper, glue, tape, and scissors
- Internet
- Device to record a video



# Concluding Remarks

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## Limitations

- Requires considerable preparedness
- Effective alignment with module LOs
- Use of clear assessment criteria and feedback
- Works with smaller cohorts
- Not enough guidance in the entrepreneurship pedagogy literature
- Problems in rolling out online

# References

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- Guckian, J., Eveson, L., and May, H. 2020. The great escape? The rise of the escape room in medical education. *Future healthcare journal*, 7(2), pp. 112–115. Isabelle, D.A. 2020. Gamification of Entrepreneurship Education. *Decision Sciences Journal of Innovative Education*, 18(2), pp. 203-223.
- López-Belmonte, J., Segura-Robles, A., Fuentes-Cabrera, A., and Parra-González, M.E. 2020. Evaluating Activation and Absence of Negative Effect: Gamification and Escape Rooms for Learning. *International Journal of Environmental Research & Public Health*, 17, pp. 2224.



# Happy to Answer Questions

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PharmaLogic

Innovation & Entrepreneurship Escape Room Challenge