

Facilitating Teamwork and Communication through an Audiology Themed Educational Escape Room: A case study

Prasha Sooful¹, Hogan A², Moore L³

¹Allied Health Clinical Educator, Top End Health Service, Darwin Australia

²Allied Health Development Officer, Top End Health Service, Darwin Australia

³Allied Health Lecturer, Flinders NT, Darwin Australia

ABSTRACT

This case study describes the process of designing and implementing a discipline specific escape room activity to encourage teamwork, networking and communication whilst also promoting discipline specific knowledge and learning outcomes. A literature review of the advantages and positive outcomes of contemporary learning activities specifically escape rooms was conducted and this led to the development and trial of the audiology themed escape room activity. Research on educational escape rooms for health professional training has been documented as an effective contemporary method for training and education as well as for promoting effective teambuilding. This case study adds lessons learnt for those thinking about trialling an escape room activity for health professionals. Outcomes from the case study showed the discipline specific escape room activity to be successful in strengthening problem solving skills and facilitating teamwork. The benefits of using an escape room to facilitate teamwork and train discipline specific content at the same time provides clinical educators with an innovative and contemporary training technique to incorporate into learning and development undertakings.

Keywords: audiology, escape room, teamwork, contemporary learning

INTRODUCTION

Audiology is a multifaceted profession involved in the assessment and management of hearing loss and balance disorders in adults and children [1]. Audiologists work in a range of settings which can include public, private, education and primary health care. The Northern Territory audiologist community is a small one with less than 30 audiologists in total. To assist with professional development, an annual event is held to provide training and networking opportunities for audiologists from different sectors.

Effective training of adult learners requires training content and training methods to be meaningful and engaging. Traditional training methods for professionals include didactic or lecture style teaching whilst contemporary training methods can include

gamification or elements of game design to place learners into problem solving and decision making roles. This creates learning challenges and rewards completion of challenges [2]. Game based learning has many advantages including engaging learners, and increasing retention of training content [3, 4]. Rewards and challenges also appeal to highly competitive learners and individuals who enjoy interacting with others. By 2017, commercial and educational escape rooms had become increasingly popular [5, 6]. An educational escape room is a time limited live action group endeavor in which participants unravel a series of problems and puzzles [7, 8]. It incorporates problem based learning and aids in the development of critical thinking skills [8-10]. Discipline specific educational escape rooms have shown positive learning outcomes for nursing, pharmacy and medical disciplines [8-10].

Correspondence to: Prasha Sooful, Allied Health Directorate, Royal Darwin Hospital, Rocklands Drive, Tiwi NT 0811, Tel: 614889228747, E-mail: Prasha.Sooful@nt.gov.au

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METHODS

Ethics approval for the project was granted by the Human Research Ethics Committee of the Northern Territory Department of Health and Menzies School of Health Research (HREC reference number (2019-3501). Audiology Australia’s Northern Territory CPD (continuing professional development) event in February 2020 was selected to trial the educational escape room activity as the final session of the day and was endorsed by Audiology Australia for 1.5 CPD points in category 2 “Development through active participation in guided activities – workshops”. The escape room was designed so that audiologists from different practice / specialty areas would get to know and collaborate with each other, as well as use effective teamwork approaches to solve the questions and “escape”. The purpose of the educational escape room was not to identify all the correct answers but to generate discussions among team members, learn from each other and learn information about different areas of audiology that participants might not use in daily practice.

A facilitator guide including six worksheets in different areas of Audiology including Diagnostics, Paediatrics, Rehabilitation, Vestibular, Auditory Processing and Audiology Australia were utilised. Questions for each worksheet involved expert knowledge in that specific area of audiology, as well as random audiology trivia questions. Clues were hidden around the room to help with the trivia questions as well as two reference Audiology textbooks. Each worksheet had associated “hint cards” if participants required assistance with answering a question. Bonus questions were also included for teams to gain additional points.

Participants were divided into two teams and each team had 30 minutes to complete the escape room activity. The aim was to answer the worksheets in order to find the puzzle pieces that made up the escape room key within the time limit.. An online countdown clock was used so teams could keep of their progress and time. Three lockboxes were placed around the room which contained clues and information for future tasks (see Figure 1).

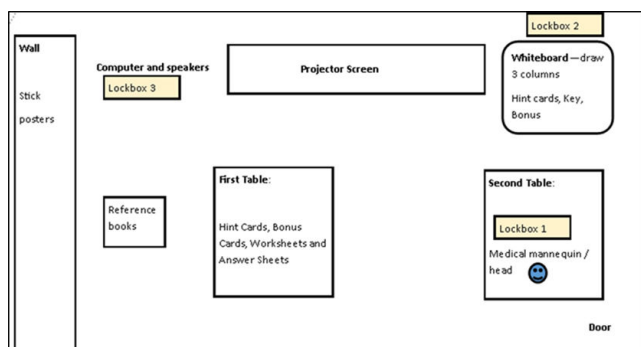


Figure 1 Audiologist escape room layout

Data Analysis

The Audiology Australia event utilised an online numerical rating system for the session facilitator and a free text box where participants’ submitted a reflective statement on learnings from the session. Qualitative data from the audiology escape room

was synthesised using an inductive, descriptive, thematic analysis method based on processes described by Braun and Clarke [11]. Sample comments are provided as direct quotes retaining original spelling and grammar.

RESULTS AND DISCUSSION

15 Audiologists and 3 non-clinical staff participated in the escape room activity. Participants rated the facilitator as excellent (n=15), very good (n=1) and good (n=2).

Eighteen free-text short-sentence comments were provided. Thematic analysis of the learner reactions indicated that participants found the escape room an enjoyable and engaging way to learn about the subject matter and improve team dynamics (See photos)



Photo credit: NT Audiology CPD Escape Room session (Sooful, P)

“Highlight of the day! I’ll never forget Jonkees formula” – Participant comment.

“Escape room was interactive and a nice way to bring the best in the teams. It covered five areas of Audiology a good balance between textbook information and practical experience” – Participant comment.

“A very fun exercise which brought out some long dormant knowledge in certain areas!” – Participant comment.

“Very good coverage of different domains within audiology in a very engaging format.” – Participant comment.

“Fun way to end the day. Great to have to work as a team and be able to make use of the variety of specialities that we brought to the table.

“Would be very happy to repeat this experience.” –Participant comment.

Audiologists and non-clinical staff who participated, found the escape room to be decidedly engaging and unique.

The Audiology themed educational escape room supported contemporary adult learning principles and encouraged teamwork and collaboration as well as increased discipline specific knowledge in Audiology domains.

Further research is required to evaluate longer term impact on use and transfer of training knowledge gained in the escape room to daily clinical practice.

PROBLEMS / CONFLICTS / CONSTRAINTS

The venue was predetermined by the host organiser and although the main training room was ideal, the second group utilised a smaller space outside the training room. There were nil conflicts observed within the groups.

LESSONS LEARNED

Although the escape room activity was implemented as planned with nil major issues, for future events, stricter rules around mobile phone use for answers will to be put into place as well as having a more structured group debrief post escape room to fully explore how participants from each group tackled the tasks and communicated as team. Each group requires its own facilitator to keep the groups on track and requires rooms of a similar size. Having a facilitator guide proved to be useful however post event, this guide was updated to include additional information, instructions for facilitators and structured debrief questions. This escape room was trialled pre-Covid physical distancing restrictions. The facilitator guide has been further updated to include suggestions on how to run this type of activity with post Covid considerations i.e. sanitised lockboxes, physical distancing, temperature checks, etc.

CONCLUSION

The educational escape room in this case study was shown to be a successful contemporary method to training health professionals in discipline specific knowledge as well as facilitating teamwork and group communications. This case study supports and adds to the previous literature in this area by providing additional learnings to support effective escape room

implementation. By placing learners in decision making and problem solving roles that reward effective communication, escape rooms can be used to as valuable teambuilding and training activities.

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