# Adapting to the new age of infection prevention education via gamification

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## Background

- The COVID-19 pandemic increased levels of burnout among healthcare workers.
- Going back-to-the-basics of infection prevention (IP) education is needed to refresh baseline IP knowledge and correct skills eroded during the pandemic.
- Interactive education enhances engagement, comprehension, and allows for real-time feedback.
- A Halloween themed IP escape room was hosted during International Infection Prevention Week, open to staff of all backgrounds and clinical experience levels.

## Methods

- Adapted the Centers for Disease Control and Prevention (CDC) Project Firstline's Escape Room Manual.
- Infection Prevention partnered with the Simulation Center to host the event in an inpatient room.
- The escape room consisted of four puzzle stations, each focused on an IP skills area:
    1. Hand Hygiene
    2. Source Control
    3. PPE
    4. Cleaning & Disinfection
- Teams of 3-6 had 30 minutes to escape (30-second penalty for hints).
- Infection preventionists monitored participation and gave real-time feedback.
- CEUs were offered for participation.
- Sent participants a follow-up survey for evaluation of experience and learning.

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**Interactive education increased engagement with the infection prevention program and improved information retention**

## Traditional vs. Gamified Education

- **Traditional Education:** lecture based, ideal for large groups
- **Gamified Education:** experience based, personalized to participants
- Engagement techniques may include reward-based competition, immersion, and fun or unconventional experiences.
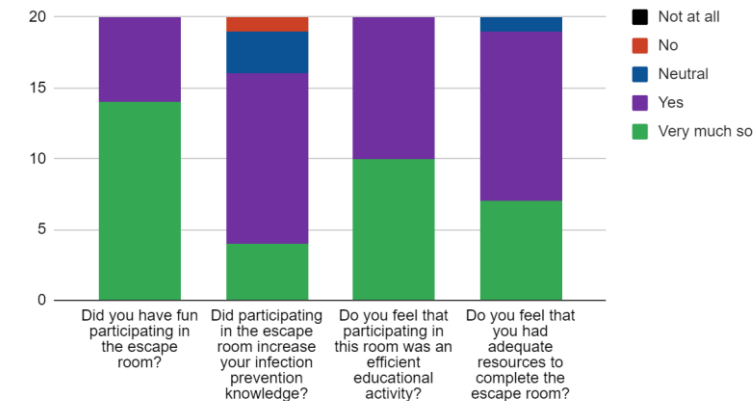


## Results

- 43 participants from 10 teams competed over 3 days, representing over a dozen hospital departments.
- Participants included nursing staff, laboratory staff, medical students, and clinical-support teams.
- 20 responses to the follow-up survey were recorded, with 13 submitting additional qualitative feedback.



Participant experience survey results

Legend:
- Not at all (black)
- No (red)
- Neutral (blue)
- Yes (purple)
- Very much so (green)

Categories:
- Did you have fun participating in the escape room?
- Did participating in the escape room increase your infection prevention knowledge?
- Do you feel that participating in this room was an efficient educational activity?
- Do you feel that you had adequate resources to complete the escape room?

## Conclusions

- The inaugural escape room achieved its goals of increasing staff engagement and furthering IP skills.
- Several requests have been received for the escape room to become an annual event.
- Future educational events can utilize survey feedback to modify difficulty of activities and puzzle focus areas.
- Gamified sessions enable hands-on learning, promoting skill application and problem-solving.

## Conflict of Interest & Disclosures

I have no conflicts of interest or disclosures.