

# A Family Feud Themed Game to Reinforce Topics of Infectious Diseases

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## Background

- Student engagement and retention of information is a priority for educators.
- One method to achieve this educational goal is the incorporation of educational games into curricula.
- Educational games that are applied in the academic field are intended to integrate information from didactic learning in a competitive active environment.

## Objective

- To describe the development and implementation of a Family Feud style game and assess the impact of the game on student knowledge and confidence of infectious diseases topics.

## Methods

- Pharmacy students participating in a Special Projects Elective developed an Infectious Feud game, inspired by the popular televised Family Feud game.
- The game consisted of 10 questions to reinforce knowledge of infectious diseases (ID) (Table 1).

### Game/Intervention Development:

- In Spring 2022, pharmacy students in the 3rd professional year (P3) who completed ID courses in the prior semester were polled to gather response data.
- Responses were assessed by faculty for accuracy. Up to 8 most frequent, correct answers were included into the game board.

### Intervention/Data Collection:

- The game was delivered in Fall 2022 to P3 students and Spring 2023 to fourth professional year (P4) students as a voluntary, co-curricular event.
- Participants completed a pre- and post-event knowledge test and self-reported confidence assessment, and a post-event program evaluation.

### Data Analysis:

- Paired t-test was used to assess differences in knowledge and confidence.
- Descriptive statistics were used to analyze student perceptions of the activity.

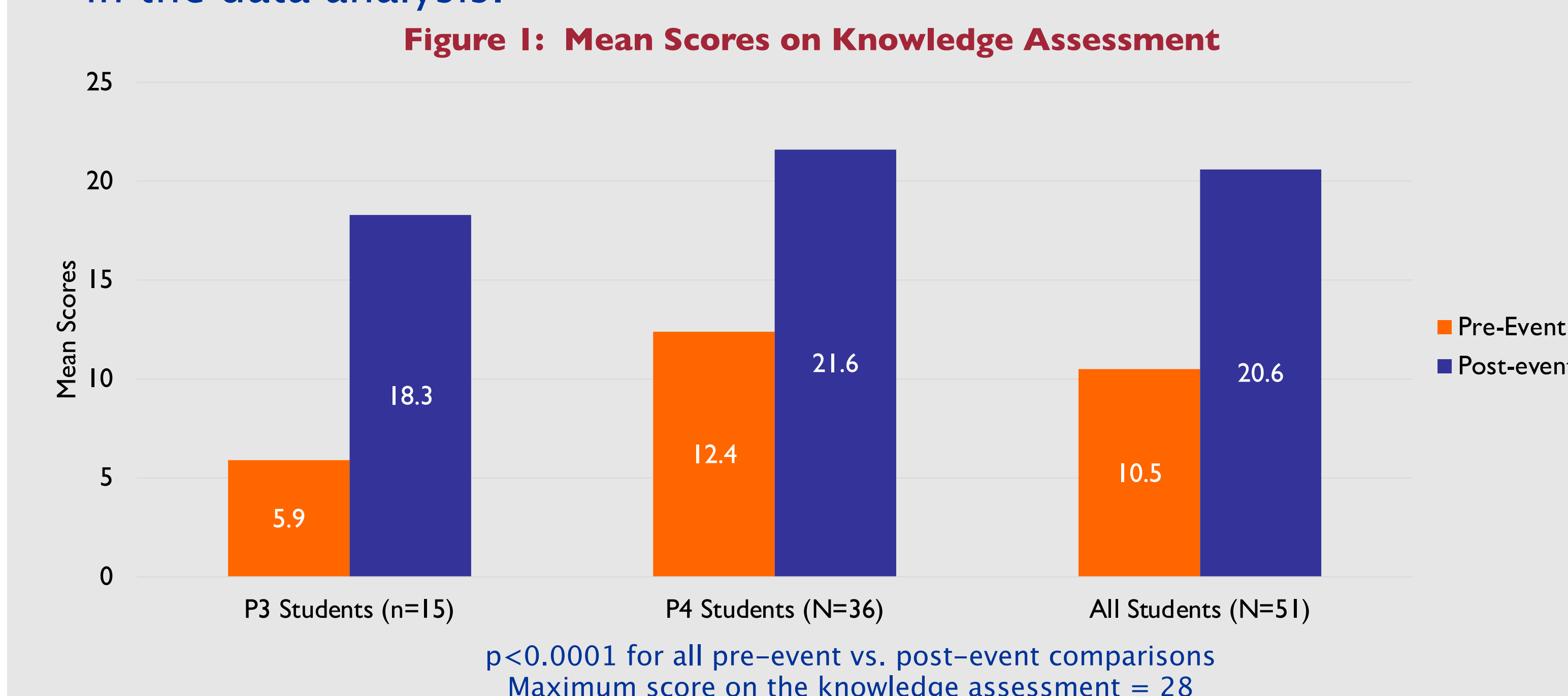
## Methods (cont'd)

**Table 1: Infectious Feud Game Description**

Question No.	Category	Infectious Feud Game Questions
1	Spectrum of activity	Antibiotics with activity against methicillin resistant <i>Staphylococcus aureus</i> (MRSA)
2	Dosage form availability	Antifungals available in the oral dosage form
3	Therapeutic category	Name different non-nucleoside reverse transcriptase inhibitors (NNRTIs)
4	Boxed warnings/ adverse reactions	Name different black box warnings (BBWs) of fluoroquinolones
5	Spectrum of activity	Antibiotics with activity against <i>Pseudomonas</i> spp,
6	Boxed warnings/ adverse reactions	Antibiotics with increased risk of <i>Clostridium difficile</i> infection
7	Basic microbiology concept	Name the genus of different lactose fermenting gram-negative bacteria
8	Spectrum of activity	Antimicrobials used as first or second line against <i>Mycobacterium tuberculosis</i>
9	Spectrum of activity	Drugs that have activity against Herpesviridae family of viruses
10	Brand/ generic	Name different antibiotic brand names that contain a beta-lactamase inhibitor

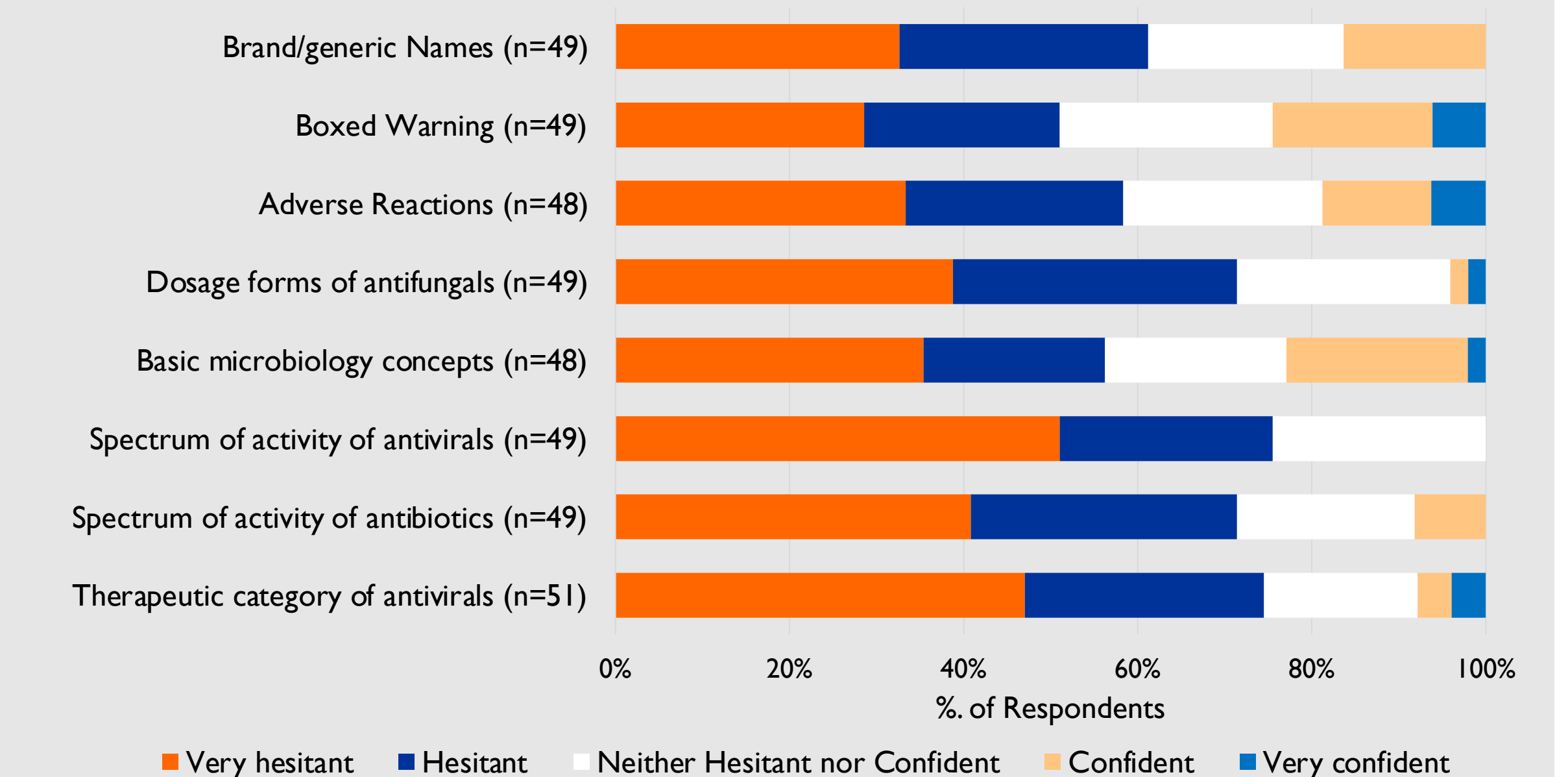
## Results

- 53 students participated in the family feud activity.
- 51 (96%) completed pre- and post-event surveys and were included in the data analysis.

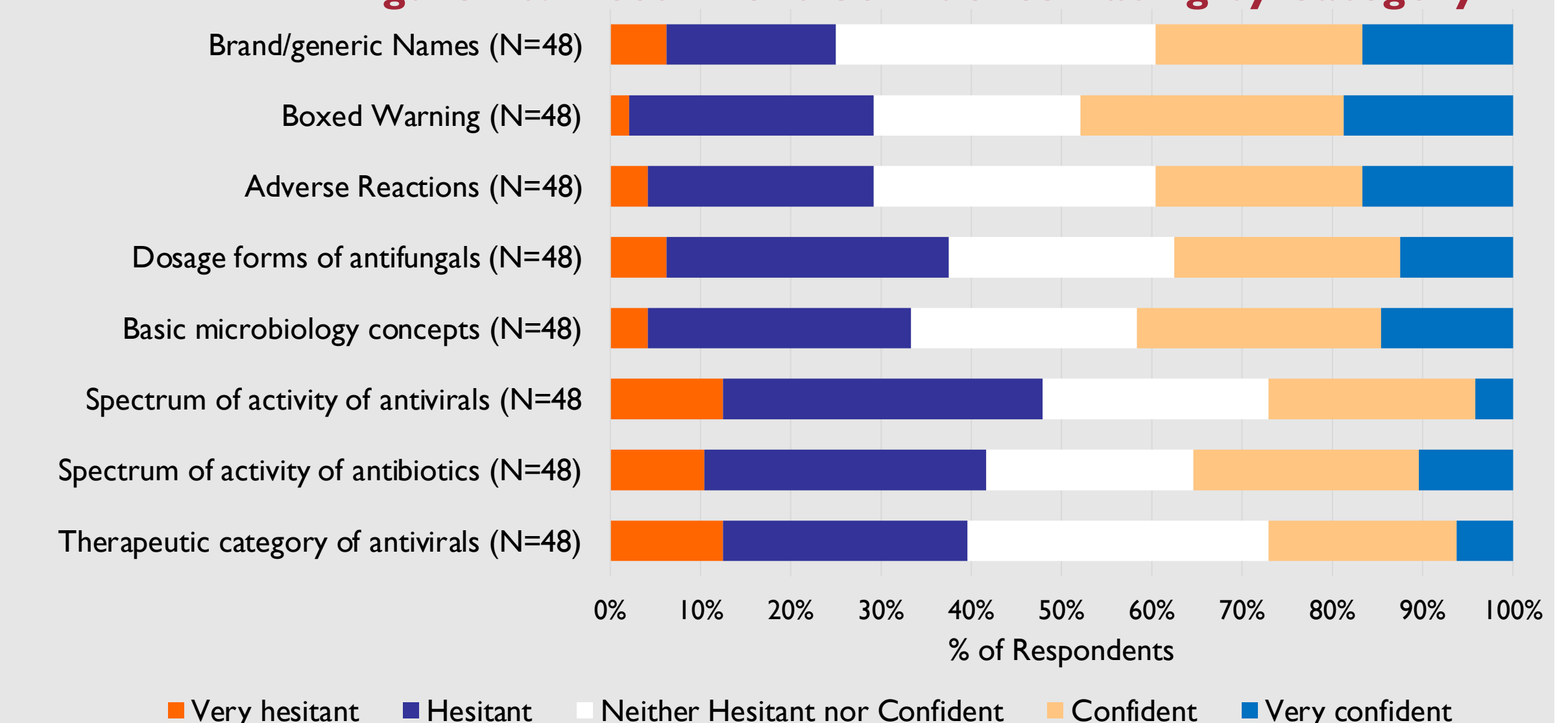


## Results (cont'd)

**Figure 2a: Pre-Event Confidence Rating by Category**



**Figure 2b: Post-Event Confidence Rating by Category**



- Students agreed/strongly agreed that the game was a fun way to review ID topics (92%), allowed students to identify areas for improvement of knowledge (90%), and to learn from peers (88%).

## Conclusions

- The Family Feud Themed game increased students' knowledge and confidence of ID topics.
- The game was well received by students.
- Gaming may serve as an effective tool to reinforce infectious diseases topics.

## References

- Cain J, Conway JM, DiVall MV, et al. Report of the 2013-2014 Academic Affairs Committee. *Am J Pharm Educ* 2014;78(10):S23.
- Aburahma MH, Mohamed HM. Educational Games as a Teaching Tool in Pharmacy Curriculum. *Am J Pharm Educ* 2015;79(4):59.