

BACKGROUND

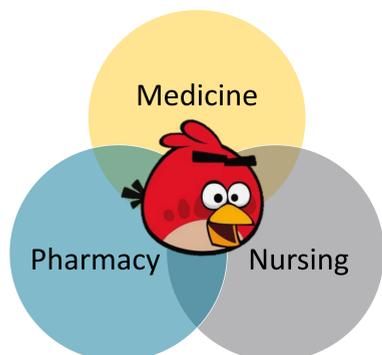
- It is the responsibility of all healthcare workers to improve antibiotic prescribing to minimize overuse and to prevent antibiotics related toxicities and resistance.
- Centers for Disease Control and Prevention (CDC) the Core Elements of an antibiotic stewardship program (ASP) include:
 - Pharmacists, prescribing clinicians, nurses, epidemiologists, microbiologists, and information technologists.
- It is essential that future healthcare professionals (e.g. pharmacy (PharmD), medical (MD), and doctor of nursing practice (DNP) graduates), have a strong foundation in antimicrobial spectrum of activity (Bugs/Drugs) and judicious utilization of antimicrobials.
- Rote memorization is often necessary to achieve best practice prescribing habits.
- A Bugs/Drugs application should promote fun, interactive learning to establish students' foundational knowledge.
- Studies have demonstrated improved retention occurs when interactive games are included in the learning process.



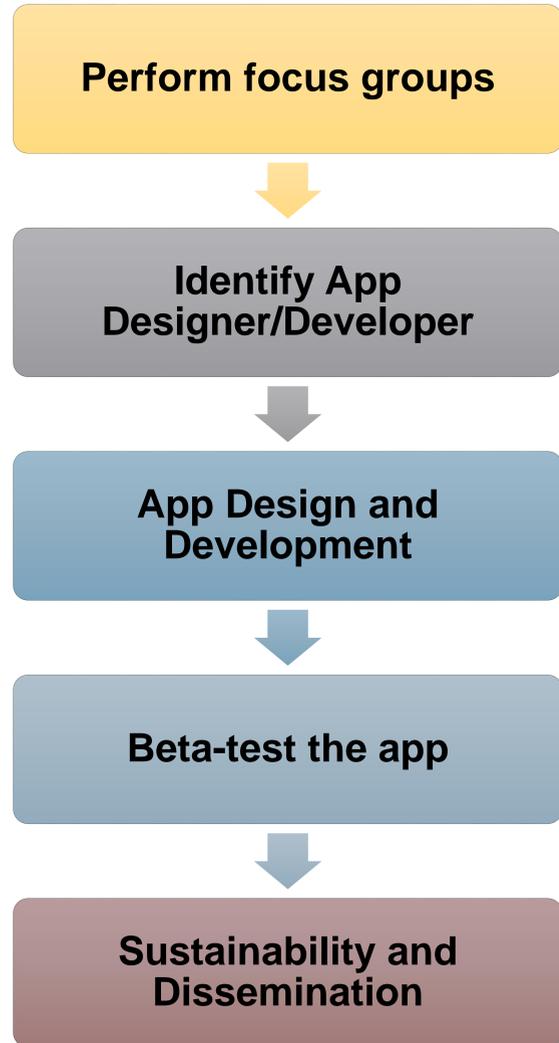
RESEARCH LETTER – Professional Development
Board game versus lecture-based seminar in the teaching of pharmacology of antimicrobial drugs—a randomized controlled trial
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OBJECTIVES

- To build an effective and sustainable relationship between the schools of pharmacy, medicine, and nursing to improve interprofessional education as it pertains to the knowledge of antibiotics and their spectrum of activity.



METHODS



POSITIVES

- Comprehensive need for antibiotic education
- Phones and applications are highly valued

CHALLENGES

- Each student learns differently
- Applications used are not always game-based
- Students vary in their interest in game-based apps
- Each discipline may have a different motivation to use such applications

FOCUS GROUP

Knowledge and Comfort with ID

*How confident are you with your knowledge of antibiotic spectrum of activity?
 1- not confident, 5- very confident*

Learning Types

For each row, circle the learning style that best describes how you learn:

Sensory Prefer concrete, practical examples and procedural information. Facts	Intuitive Prefer conceptual, innovative, and theoretical information. Look for meaning.
Visual Prefer graphs, pictures, diagrams for information.	Verbal Prefer to hear or read information. Explanations in words.
Active Prefer to manipulate objects through physical experimentation. Learn by working in groups and trying to figure problems out.	Reflective Prefer to think things through and evaluate options. Enjoy figuring out problems on their own.
Sequential Prefer information presented in a linear and orderly manner. Put details in order to understand the big picture.	Global Prefer holistic and systematic approach. See big picture first and then try to fill in details.

What types of games do you play on your phone? (Check all that apply)

- | | |
|---|---|
| <input type="checkbox"/> Educational | <input type="checkbox"/> Card games |
| <input type="checkbox"/> Competition games with friends | <input type="checkbox"/> Role playing games |
| <input type="checkbox"/> Arcade-type (Action) | <input type="checkbox"/> Sports |
| <input type="checkbox"/> Puzzles (Adventure) | <input type="checkbox"/> Strategy (chess, checkers, etc.) |

Use of Apps on Phone

How often do you use your phone to play games?

1: not at all; 2: a couple of times a month; 3: multiple times a week; 4: at least daily; 5: more than 3 hours a day

What is the most you would pay for a supplemental, interactive learning app that would not be required for class.

\$0 \$1-5 \$6-10 \$11-\$15 >\$15

NEXT STEPS

- Focus groups have been completed.
- Faculty will now work together to identify a model of an application that we would like developed.
- Faculty will identify a key application developer to develop and pilot the application with.
- Faculty will pilot the application with each School to identify usability and effectiveness.
- Assessment of effectiveness of application tool will be conducted for all disciplines.

Authors have no conflicts of interest to disclose