

discussed epidemiology of ethnic skin diseases at a 1-hour hospital-wide grand rounds. We subsequently conducted a 2-hour classroom session during which residents taught each other about common skin of color diseases in a large group setting. We then piloted the following 2 games during a 30-minute interactive session to solidify the aforementioned topics and to introduce more complex issues.

“Skin Matchmaker” is a game in which individual residents are given 20 images of dermatologic conditions: 10 images of conditions on dark skin and 10 images of identical conditions on lighter skin. First they name and match identical conditions, and then they describe similarities and differences in appearance and treatment considerations on light and dark skin.

In “Guess Who? The Derm Term Version,” a group of 4 residents are given 10 images of conditions on dark skin. Three residents are given 1 image of the 10 to provide clues to the fourth resident. The residents first give visual descriptions of the chosen image in order to aid the fourth resident to guess the correct image. They then proceed to describe treatment, diagnosis, and epidemiological considerations for the chosen image. Allowing only visual descriptions initially aids residents in much needed practice for physical examination skills for dermatology.

Outcomes to Date

The traditional lecture was best used to introduce simple and easily understood concepts, and the large group session allowed residents to explore these concepts more in depth in a group setting. The flipped learning session allowed individual learners to directly engage with more complex concepts. This session was very well received—over 90% of residents rated the session as very good or excellent (the highest 2 scores on a 5-point Likert scale). Our open resident feedback found that the flipped learning session engaged individual learners in visual learning and pattern recognition, which are necessities of dermatology education. We observed that visual learning in this setting increased motivation to learn, triggered emotive responses that helped sustain knowledge, permitted quicker transmission and improved comprehension of complex topics, and most importantly allowed residents to learn at their own pace.

Based on feedback from residents, we will implement an online interactive module that includes the above games in addition to information on skin of color dermatology. Once implemented, we will send a postintervention survey assessing residents’ knowledge and comfort of skin of color dermatology. We will utilize the results to further refine these tools.

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Games Squared: A Card Game to Learn About Using Games in Medical Education

Setting and Problem

Games for learning, sometimes referred to as “Serious Games,” are becoming increasingly popular at all graduate medical education training levels. Some of the noted virtues are that they help engage and challenge learners, address complexities, and provide ongoing feedback. Furthermore, they add an element of “fun” that is likely to grow into a motivational force. To help educate faculty about the large variety of possible games, we developed a card game that highlights the pros and cons of each modality and provides an opportunity to match specific games with specific curriculum development challenges. The challenges are organized by the 6 Accreditation

DOI: <http://dx.doi.org/10.4300/JGME-D-18-00959.1>

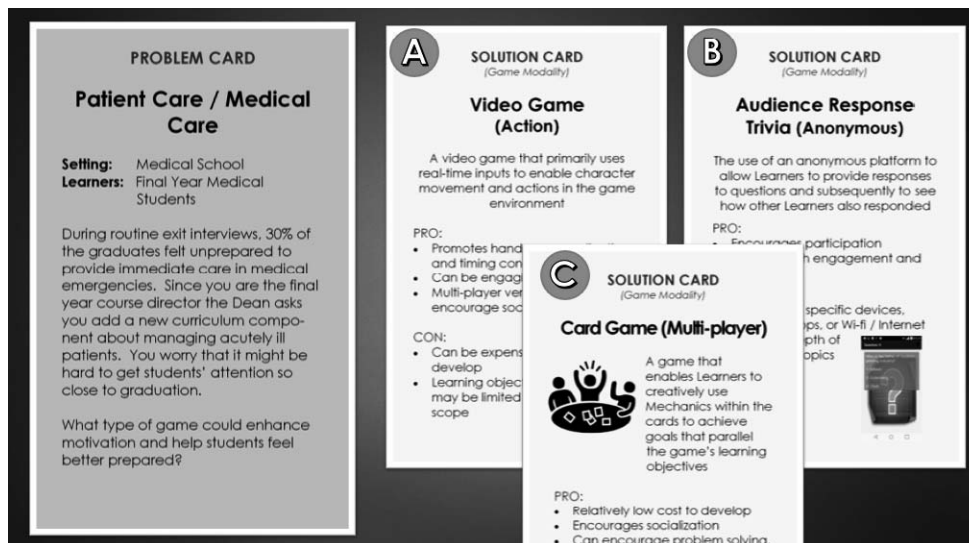


FIGURE
Screenshot of the Games Squared Card Game Played During a Webinar

Council for Graduate Medical Education (ACGME) Core Competencies and are presented in the form of brief scenarios. The types of games offered as potential solutions were derived from various references, websites, and conference presentations. Their selection followed an iterative process. The inspiration for the game came from Simpson and colleagues' "From Madness to Methods" faculty development exercise (<https://www.mededportal.org/publication/7968>).

Intervention

"Games Squared" consists of 36 cards in total. Eight of them are Problem Cards, 6 of which are based on the ACGME Core Competencies (eg, to illustrate a Professionalism Education Problem, learners take on the role of a hospital academic affairs leader to address an ongoing concern about professionalism in team settings). Two additional Problem Cards are "wild," allowing learners to introduce their personal curriculum concerns. The remaining 28 cards are Solution Cards that describe different serious game or gamification options, such as audience response trivia, board games, virtual patient, or video games. Each solution card consists of a brief description and bullet points for pros and cons. The Solution Card set also includes 6 wild cards to spur faculty's creativity and help expand their toolbox beyond the cards provided. The game requires 2 to 4 players to fully benefit from this learning opportunity.

To play, the Problem Cards are placed in the middle and each player gets 5 to 7 Solution Cards. Any leftover Solution Cards are also placed in the middle.

The person who starts (can be anyone) picks up a Problem Card, reads it aloud, and places it face up in the middle. Each player then selects one of the Solution Cards from those that were dealt and attempts to convince the rest of the group that their chosen method would best solve the curriculum problem. At the end the group decides the value and usefulness of each solution. To make the game more fun and layer on a team development component, we prepared little bags with chocolates that are divided by the group based on the merit of the solutions offered. The group can decide whether to give all chocolates to one or several players, or whether to divvy them up equally. Once a round is completed, the used Solution Cards are replenished from the stack in the middle, and someone else picks up the next Problem Card. Optimally, the game continues until all cards are reviewed and discussed. The goal of the game is to expand the learner's toolbox of game-based educational strategies, while participating in a metacognitive exercise.

Outcomes to Date

Currently, we have piloted Games Squared at several professional conferences. We also developed an abbreviated version for a webinar on game-based learning. Via online polling, participants can select 1 of 3 solution options for a provided Problem Card (see the FIGURE). Regardless of venue the game has been received positively. Program evaluation comments included, "It has certainly piqued my interest in using games in problem-solving education" and "Although I had fun, there were still deep thoughts that came out of

it.” The cards can be downloaded from <http://bit.ly/GamesSquaredGME>.

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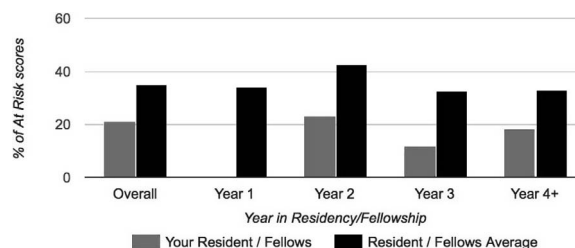
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NEW IDEAS

RAPID: A Communications Bundle to Improve Resident Well-Being

Setting and Problem

The poor well-being of resident physicians is a cause for significant concern. Burnout rates are high, and



FIGURE

Well-Being Index Results

Note: Shows percentage of residents at risk for burnout in Johns Hopkins anesthesia residents and fellows (gray bars) compared to national resident and fellow averages (black bars). Hopkins does not offer an intern year hence no gray bar for “year 1.”

the consequences, including depression, impaired cognitive function, and increased rates of medical errors, are serious.

Employees who rate their leaders highly in terms of communication, willingness to listen, and response to concerns have significantly better well-being and job satisfaction compared to peers. Thus, we implemented a communications bundle to help residents feel supported and heard.

Intervention

To improve communication with residents, starting in January 2017, we initiated a group of interventions that we described with the mnemonic RAPID (Real-time, Anonymous, Protocol-driven, Individualized, Defend). The bundle is easy to implement, has no associated cost other than finding time to meet with residents, is welcomed by residents, and can be replicated in any medical specialty.

To provide anonymous feedback in real time, we do the confessions activity described by Karan and colleagues (*J Grad Med Educ.* 2015;7(4):528–530). Residents write questions, concerns, or feedback on notecards and drop them in a hat. The program director chooses a card at random, reads it aloud, and responds. This allows for residents to get immediate responses from program directors and to hear their colleagues’ concerns (which helps alleviate stress). For example, when we do this activity with residents at the end of their first week of residency, hearing that many others have struggled with the same skills (eg, arterial line placement) helps them realize they are not alone.

The second anonymous aspect of our protocol is an always open, online suggestion box. The program director reviews all submissions and writes a monthly e-mail to the residents detailing suggestions and concerns that were submitted and what is being done to address them. Therefore, residents know their concerns are being heard and taken seriously.

DOI: <http://dx.doi.org/10.4300/JGME-D-18-00815.1>