

Germ Blasters and Gameful Thinking: *Saving New Employee Orientation One Mission at a Time*

Teresa Freudig, MSN, RN, Diana Tiggelaar, MSN, RN, Sara Richardson, RD, RN,
Deb Gardner, MSN, RN, and Kathy Boyle PhD, RN

Hospital-based orientations are known for being long and boring, and unfortunately, in the summer of 2016, ours was no different. At Denver Health and Hospital Authority, our new nursing employees attended a 3-day orientation that involved learners sitting and listening exclusively to PowerPoint presentations. Educators and leaders watched with despair as the newest members of their workforce became overwhelmed, glazed-over, and simply downright bored. This format did not incorporate all the adult learning styles or foster engagement and team building. It was also unclear whether the required standard information competencies were being retained by the audience. We knew the orientation must change to ensure new employees were not only prepared for success in their roles, but also inspired and excited to be a part of an organization with a meaningful mission and vision. By integrating gameful thinking into our orientation, we have decreased resource demands, time, and cost while increasing knowledge retention and employee engagement!

OUR VISION

Knowing that we needed to radically change orientation, we began with a vision of a unique and energizing orientation in which new employees would have the opportunity to interact, collaborate, and go beyond the walls of a conference room to actually experience the organization. We looked to published literature regarding gamification and gameful thinking to form the conceptual basis for our vision. Documented benefits of this approach included the ability to inspire curiosity, increase engagement, and emphasize the intrinsic needs of the learner as highlighted by Brull and Finlayson.¹ One 2017 study on the use of a video game during orientation in health care showed increased knowledge retention among nurses per Brull et al.² Another 2015 study by Mokadam et al.³ found that the use of gamification was successful in motivating thoracic surgery residents to increase their use of simulation training. Although additional examples of the use of gamification can be found in health care, the search did not yield any reports of innovations comparable to our vision. Through qualitative observations and examination of evaluation comments in our current environment, we determined that employees were overloaded with information in surroundings not conducive to learning.

The common themes derived from the employees were “Wow, lots of information—I hope I remember it when I get to my floor” and “It’s hard for me to sit for this long.” We observed that at the end of orientation, employees could not articulate vital content such as how to respond to an active shooter or even the vision of the organization! Our future state plan was to utilize gameful thinking while embedding employees into the organization using situational learning and team building missions.

LET’S GET STARTED!

Once our vision of a meaningful, exciting, and interactive orientation was conceived, we were highly motivated to get started! To ensure both employees and our organization benefited, we changed our evaluation method to an evidence-based, learner-centric tool, and we began collecting baseline data. We met with orientation presenters who served as subject matter experts to create buy-in and to collect desired learning objectives. This process may sound tedious, but it was well worth it. We started with 70 learning objectives, and by the time we were done, we were able to collect 113 objectives from both these experts and from regulatory bodies such as The Joint Commission and state and

federal recommendations. For example, one of The Joint Commission's⁴ national patient safety goals is to use at least 2 ways of identifying a patient. At Denver Health, the preferred method is to request the name and the date of birth of a patient.

Now that we had our objectives, how would we incorporate this into orientation? First, we identified our goals. Our goals were to align all team members towards our Denver Health vision of being the healthiest community in the United States, increase interprofessional collaboration, decrease resources and cost, and maintain focus on quality and safety. Imagine an entire health care workforce that works together as a team! And where all departments within the health care system utilize healthy communication that puts the safety and quality of care first for patients! This world *can* exist, and it begins day 1 of employment into our health care system at Denver Health in Denver, Colorado!

We began by developing missions that contained Workman's³ key strategic gamification elements of intuitive design, behavioral sensitivity, alignment, and value. In addition, we created a storyline for the adventure game that was based on our hospital almost being destroyed by a tornado and germs attacks taking over. We determined that the new employees would be called Germ Blasters. These missions are scenario-based and utilize all 4 adult learning styles to promote optimal learning. Some examples of how these key elements are integrated are below:

- A reader's theatre—Participants dress in costumes and role play as a transgender patient, a new certified nursing assistant, and patient advocate.
- A jeopardy game—Participants learn the in and outs of care coordination and patient experience through the eyes of a Spanish-speaking family and their injured child.
- A video game—Participants learn about workplace violence through the experience of an elderly patient with dementia.
- An escape room—Participants learn about the wellness program and benefits provided by the organization by having to discover a code to unlock a box.
- An emergency command center—Participants simulate running a command center and do hands on skills such as putting out a fire.

Our long-term goal was to have these missions throughout our campus in different departments and have the Germ Blasters venture out to all the different areas to become familiar with the campus and meet current employees. For testing purposes, we initially created and implemented these missions in 1 building in order to control the environment. Using rapid plan-do-study-act cycles, time motion studies, and continuous monitoring of employee evaluation data, we ensured the missions could be clearly delivered and validated in the allotted time frame before moving the loca-

tion of the missions into patient care, support services, and administrative areas. Once this was successful, we then moved out into our vast campus to mimic what our patients experience and to also give our new employees familiarity with their new backyard.

MISSIONS COMPLETED, READY FOR TAKE-OFF

Now that the missions were designed, we were ready to assimilate this format into orientation to make it engaging and interactive, while giving our employees the gift of education! With some brainstorming, collaboration, and a whole lot of fun, our new orientation format, Germ Blasters and Gameful Thinking: Saving New Employee Orientation One Mission at a Time, was born! The overall premise is that our hospital has been taken over by germs, and we need the Germ Blasters (new employees) to save our hospital and, more importantly, our community! Let's take a closer look at how this fun, educational adventure unfolds:

Arrival

- New employees enter Denver Health for their first day of employment and are immediately called Germ Blasters. The Germ Blasters are put on small teams with names that reflect our organizational strategic focus areas. Some examples are Team Patient Experience, Team Quality, Team AIDET, and Team Community. These teams are made up of all disciplines such as environmental services, physicians, physical therapists, cooks, nurses, and grant writers.

Welcome

- The Germ Blasters are first welcomed for 15 minutes by our chief executive officer and then the adventure begins! Germ Blasters watch a fictional themed video that explains that our hospital was practically destroyed by a tornado 2 weeks prior and is being overrun by germs. The Germ Blaster teams must follow maps that lead them around campus, then locate their missions, conquer all of the contaminated hands that are indicated with germs, and then find a golden hand (which will be discussed later).

The First Mission

- Before going off on their adventure around campus, the teams are introduced to the Germ Master Blaster who leads them through opening ceremonies (which is considered their first mission). This mission, like all of our missions, is named after one of the communities we serve. By utilizing an interactive audience response system, the Germ Blasters begin collecting points and learn key tools that support the teams' ability to be self-sufficient throughout the adventure game. Of course, the team can call one of the Germ Master Blasters if

needed, but this rarely occurs. The energy within the first hour of employment, during opening ceremonies, is full of excitement and is palpable!

Into the Campus

- Once the Germ Blasters leave opening ceremonies, they begin following their maps to the first of 6 of their missions. The missions are strategically located in areas that new employees may never know exist. Missions are located in the coding and billing department, volunteer services, food and nutrition, an inpatient nursing floor, a primary care clinic, and so many more departments! As they follow Germ Guides, they are led to the initial neighborhood sign that detail what their mission is.
- The teams then jump right into their missions by looking for germ-infested contaminated hands. As they read the contaminated hands, they are instructed to do tasks such as review policies, demonstrate how to put out a fire, or how to locate our lesbian, gay, bisexual, transgender and queer services for patients. As they complete these contaminated hands, the team must locate the golden hand; this is a hands-on approach for competency validation through the involvement of existing employees at the end of each mission.
- This golden hand is a person representing a department that first requests a password. There are different passwords embedded in each mission to ensure the mission was completed. Once confirmed, the golden hand does an introduction (referred to as AIDET: acknowledge, introduce, duration, explain, and thanks) and asks 1 team member to perform their AIDET. Then they ask 5 questions to validate the information learned. At the end of the interaction with the golden hand, the team is awarded a sticker and points for the missions, and then the Germ Blaster team proceeds to their next mission.

Coming Back Together

- After the teams of Germ Blasters complete their missions, they head back to the location where opening ceremonies occurred to return their maps and have lunch. After the break, the Germ Master Blaster announces the top 5 teams based on the accumulation of points throughout the day and begins to hand out their last contaminated hand. The top 5 teams are instructed to design a 5-minute presentation on how they saw their team name in action throughout their adventure. For example, one patient experience team acted out a cooking show on how to create the best patient experience: they put a dash of customer service here, and added a cup of AIDET and a tablespoon of a smile! The other teams are not left

out! Their last contaminated hand instructs them to put on a parade focused on their team name.

Final Celebration

- The Germ Blaster teams are given 30 minutes to create their parade entry or their 5-minute presentation and are provided costumes and accessories to make the experience fun, educational, and inspiring. This time frame is referred to as closing ceremonies, and current employees are invited to judge the teams. Once the parade and the presentations are completed, and as the points are being tallied, the judges all introduce themselves and their departments, once again demonstrating community and teamwork! The winning team is given a “Twinkle,” which is a plastic coin worth \$5 dollars in our gift shop or cafeteria, and Germ Blasters learn about our reward system for going above and beyond! The Germ Blasters finish the day with a quick presentation by one of our volunteers whose life was saved by our hospital and a final welcome by one of our chief executive officers.

This format has reduced time and costs associated with a typical new employee orientation. These missions individually take approximately only 20 minutes; each interaction with the golden hand is purposefully designed to take 3 minutes. A shortened orientation means that our new employees get to their work areas and to our patients more quickly. This reinforces our commitment to putting patients first!

MONITORING THE OPERATION

All of our aforementioned goals were met within the first few months after implementation. Additionally, this new format was so successful that this nurse-led team partnered with human resources, and the orientation is now given to all new employees instead of the original focus on nursing/patient care hires. Post-orientation evaluations indicate an improvement in all new employee experience areas. For example, 98% of participants agreed or strongly agreed with the question “I was well engaged with what was going on during the program” after implementation versus 92% of participants prior to implementation. Additionally, when asked, “I am clear on how to apply what I learned on the job,” 99% of participants agreed or strongly agreed after implementation versus only 91% prior to implementation. We were also able to qualitatively observe new employees during closing ceremonies and witness the enthusiasm, formation of cohesive teams, and validation of knowledge.

We continue surveillance to monitor these data elements and make incremental changes to improve the employee experience, thus gaining insight into the overall experience. Employee feedback has led to making the instructions more concise and adding more hands-on materials.

Although this model has clearly shown that it benefits our new employees, it also has given current employees a large role to play, and they are very engaged! These employees who play the roles of the golden hands and Germ Master Blasters show pride in their organization, and the energy is palpable! The golden hands, as mentioned earlier, validate the team's knowledge during their interaction. This validation method supports real-time feedback, allowing participants to have a sense of accomplishment, which is another known benefit of gamification indicated by Brigham.⁶ And when we say this has been a team effort, we mean it! Our human resources department, department of nursing education and research, department of LEAN management systems, and of course our executive team, all have also been a part of ensuring each new employee orientation is logistically efficient and effective, and that the overall day is inspiring! They have been a part of this journey from the beginning, clearing the way for success! Here are just a few examples of comments from some of these team members:

"I love the new new employee orientation experience. It is great meeting new folks and telling them about our area. We have some laughs and I feel a connection. I ask each person where they are going to be working and have heard nothing but positive remarks from my team and everyone involved."

Shirlee D.

Director, Hospital & Physician Business Services

"The approach we have taken with Germ Blasters turns new employee orientation on its head. Instead of sitting in front of a battalion of managers, all telling new staff members what they have to do, we send our new hires across campus. They learn, explore, meet and connect with people where they actually work. It's a great way to project our culture and build some engagement with our staff on their first day at Denver Health."

Rob B.

Chief Marketing and Communications Officer

"Our new approach to our new employee orientation is fantastic! I give credit to our nurse educators who had a vision for something more engaging and exciting. Success of the program came through strong collaboration between nursing education and human resources, both committed to creating a better experience for employees. The feedback has been full of excitement, learning, and a great first impression of Denver Health. We will continue to evolve to meet the changing needs of our workforce."

Michelle F.-J.

Chief Human Resource Officer

"I'm so proud to share with others outside of our system, our innovative way to engage our new employees the moment they step on our campus."

"This new learning format is so refreshing, and it's engaging our staff! Not only are they learning about our institution in a unique way, but they are getting to know their future colleagues."

"Our new employees have enjoyed the chance to meet other new employees—encounters that they are likely never to forget."

Amy F.

Chief Experience Officer

Like any great innovation, this is only the beginning! In its current phase, this innovative orientation enhances professional practice through interprofessional team building, strengthens communication, and amplifies our Denver Health vision! In the future, our program will only continue to save resources and perhaps inspire organizations to put their focus where it truly belongs: on patients, safety, and quality!

References

1. Brull S, Finlayson S. Importance of gamification in increasing learning. *J Contin Educ Nurs*. 2016;47:372-375.
2. Brull S, Finlayson S, Kostelec T, MacDonald R, Krenzischek D. Using gamification to improve productivity and increase knowledge retention during orientation. *J Nurs Adm*. 2017;47:448-453.
3. Mokadam NA, Lee R, Vaporciyan AA, et al. Gamification in thoracic surgical education: using competition to fuel performance. *J Thorac Cardiovasc Surg*. 2015;150:1052-1058.
4. The Joint Commission Accreditation Hospital. 2018 National Patient Safety Goals. Available at: https://www.jointcommission.org/assets/1/6/2018_HAP_NPSG_goals_final.pdf. Accessed October 1, 2018.
5. Workman B. Gamification Will Drive Billions in Economic Value, But What Consumers Expect From It Is Changing Quickly. December 27, 2013. Business Insider website. Available at: <https://www.businessinsider.com/gamification-set-to-become-a-multibillion-dollar-market-2013-12>. Accessed June 10, 2018.
6. Brigham TJ. An introduction to gamification: adding game elements for engagement. *Med Ref Serv Q*. 2015;34:471-480.

Teresa Freudig, MSN, RN, is Clinical Nurse Educator at Denver Health and Hospital Authority in Denver, Colorado. She can be reached at Teresa.Freudig@dhha.org. Diana Tiggelaar, MSN, RN, is Clinical Nurse Educator at Denver Health and Hospital Authority. Sara Richardson, RD, RN, is RN Case Manager at Kalispell Regional Health in Denver, Colorado. Deb Gardner, MSN, RN, is Associate Chief Nursing Officer at Denver Health and Hospital Authority. Kathy Boyle, PhD, RN, is Chief Nursing Officer at Denver Health and Hospital Authority.

Note: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

1541-4612/2019/ \$ See front matter

Copyright 2019 by Elsevier Inc.

All rights reserved.

<http://dx.doi.org/10.1016/j.mnl.2018.12.007>