

# Immerse to Engage

## A Simulation-Based Instructional Approach to Teaching First-Year Students



Presented by Nick Wilkenson (.1)  
& Chris Younkin (.15)  
The Ohio State University Libraries

### **Title: Immerse to Engage: A Simulation-Based Instructional Approach to Teaching First-Year Students**

Presented by Nick Wilkenson (.1) & Chris Younkin (.15) of The Ohio State University Libraries

**Session Time:** Breakout IV (afternoon)

**Breakout Room:** Great Hall Meeting Room 2

#### **Session Outline:**

Duration: 60 minutes

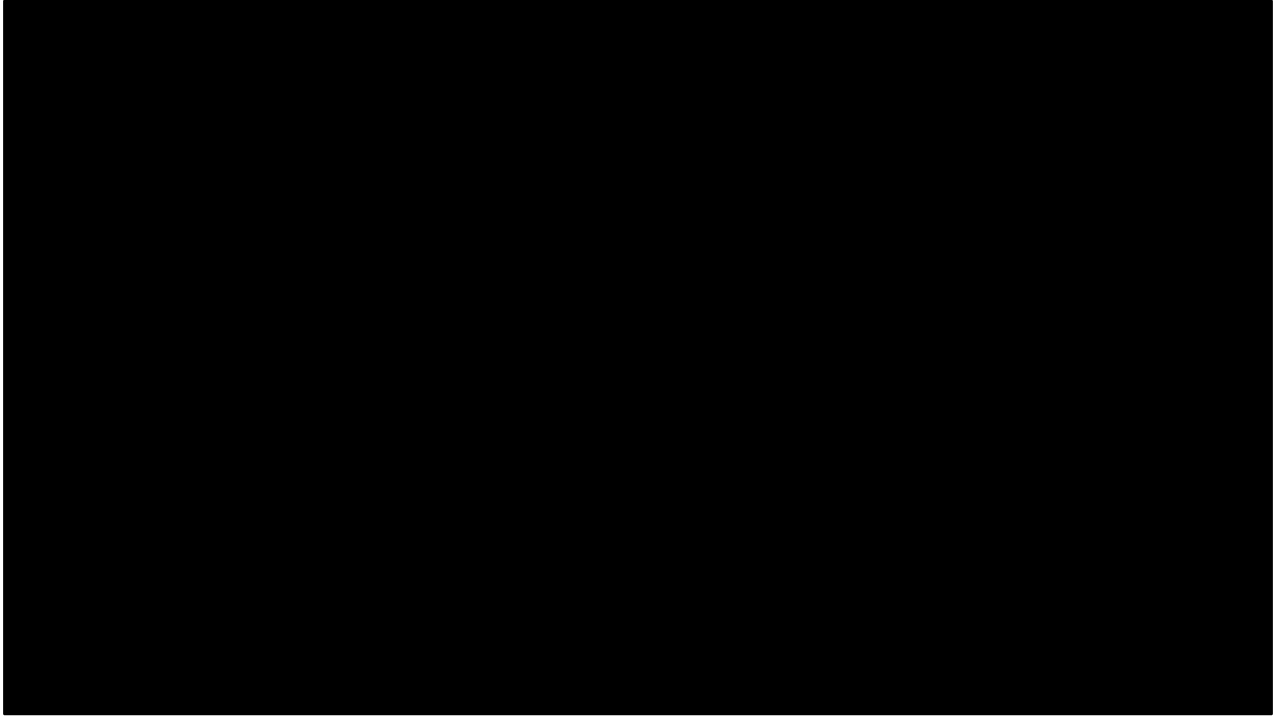
1. [min. 00-09] Introductions and Icebreaker
2. [min. 10-14] Simulation-based instruction (SBI) overview
3. [min. 15-24] SBI model template introduction, case study ("Fight the Fake" FYSS session), activity introduction
4. [min. 25-39] Template practice activity
5. [min. 40-44] Activity testing and discussion
6. [min. 45-60] Session Debrief and discussion

Image Credit: "Go board"

<[https://commons.wikimedia.org/wiki/Go\\_\(board\\_game\)#/media/File:Go\\_board.jpg](https://commons.wikimedia.org/wiki/Go_(board_game)#/media/File:Go_board.jpg)> by

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Introductions: by Nick Wilkenson (.1) & Chris Younkin (.15) of The Ohio State University Libraries

Icebreaker: Have everyone stand in a line parallel to the longest side of the room. Designate one end of the room to be the “strongly agree” section and the opposite end as the “strongly disagree” section with the space in the center as “neutral.” This creates a **continuum** of possible levels of agreement (Likert-style). As you make the following statements, have participants go to the approximate part of the **continuum** that best represents their agreement. Once in place have them briefly introduce themselves before answering the next question. Ask them why.

Statement 1: “I am an Educator, with a capitol E.”

Statement 2: “I love playing games (any kind).”

Statement 3: “I use games to enhance my teaching.”



#### Background on Simulation-Based Learning:

Simulation-based instruction is nothing new. One of the oldest games still played today is “Go.” Created in China more than 2500 years ago, players in this game strategically place stones on a grid to claim territory, surround the opponent, and capture pieces. Some legends “suggest that the game was derived from Chinese tribal warlords and generals, who used pieces of stone to map out attacking positions” ([https://en.wikipedia.org/wiki/Go\\_\(game\)\)](https://en.wikipedia.org/wiki/Go_(game))). We might imagine ancient military generals using Go to develop useful skills for battle, as well as training their protégés.

Image in the Public Domain <<https://en.wikipedia.org/wiki/File:FloorGoban.JPG>>



Background on Simulation-Based Learning:

Games like Chess also represent ancient war-game simulations (Taylor & Walford, 1978, p. 4).

Taylor, J. L., & Walford, R. (1978). Learning and the simulation game. Beverly Hills, CA: Sage Publications, Inc.

Image Credit: "Chess III" <<https://www.flickr.com/photos/tillwe/15509555420/>> by Till Westermayer <<https://www.flickr.com/photos/tillwe/>> Licensed under CC BY-SA <<https://creativecommons.org/licenses/by-sa/2.0/>>



Background on Simulation-Based Learning:

For many of us today, the word “simulation” may conjure mental images of flight simulators for pilots in training . . .

Image Credit: "Link Trainer (Flight Simulator)"

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Background on Simulation-Based Learning:

. . . or a training mannequin for CPR certification courses. . . .

Image Credit: "Truckee Meadows Community College"

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Background on Simulation-Based Learning:

. . . Or we may imagine high-tech computer-based simulations used by the military to train soldiers.  
...

Image Credit: "NCO Academy Teaches Leadership in Virtual Environment (2)"  
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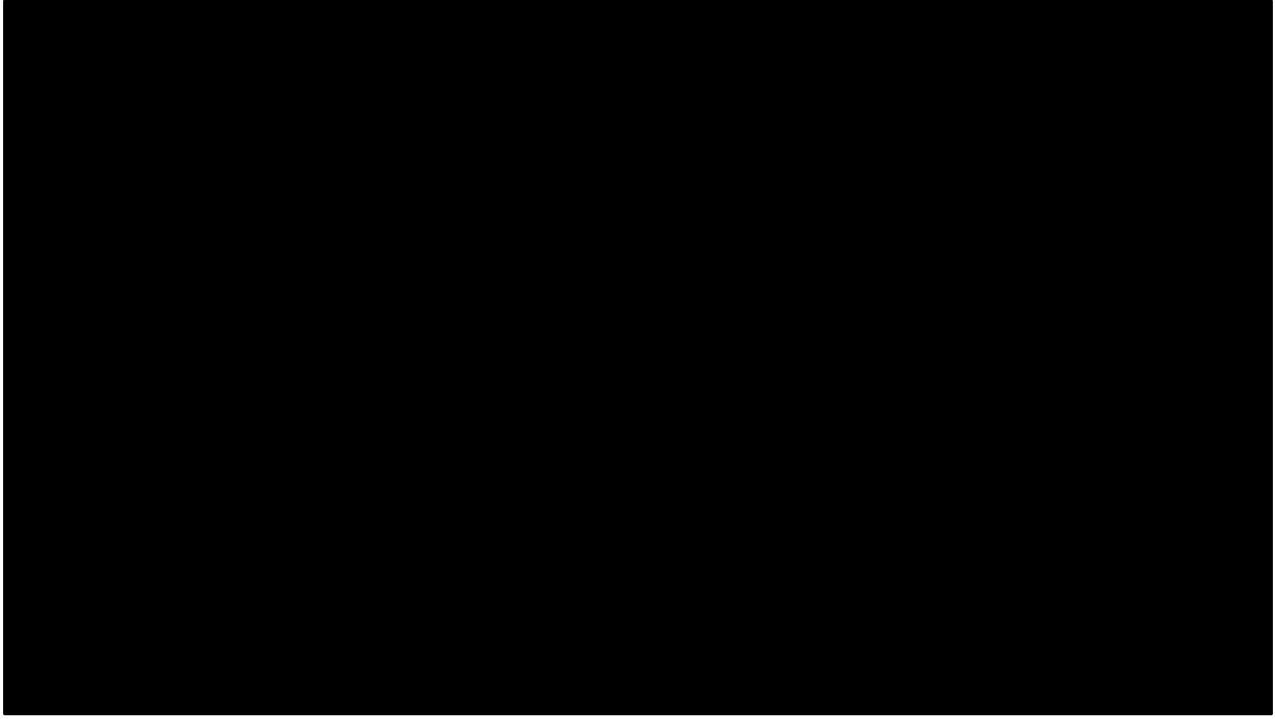




Background on Simulation-Based Learning:

. . . A simulation can also be low-tech as a role-playing. In all these cases, simulation provides hands-on learning and experience with processes and/or skills in low stakes environments. The more realistic the simulation, the better it will accord with the real-life situation it is simulating.

Image Credit: "Get ready, 2" <<https://www.flickr.com/photos/jamesmalone/3627290224/>> by James Malone <<https://www.flickr.com/photos/jamesmalone/>> licensed under CC BY-NC 2.0 <<https://creativecommons.org/licenses/by-nc/2.0/>>



### Background on Simulation-Based Learning:

Educational simulations are “sequential decision making . . . events in which [learners] fulfill roles to manage discipline-specific tasks within an environment that models reality according to the guidelines provided by the instructor” (Hertel & Millis, 2002, p. 15).

Research shows that simulation-based instruction can increase be motivating and engaging for both students and teachers. A recently published literature review of game- and simulation-based learning research suggests that

“games and simulations motivate, engage and promote effective learning goals by providing opportunities for learners to actively experience, practice, interact and reflect in a collaborative, game-based, and learner-centered environment . . . [Also,] simulation games are found to be popular . . . due to the fact that they are [often] implemented in authentic learning environments” (Vlachopoulos & Makri, 2017, pp. 25-26).

Another researcher suggests that, “Allowing students a more active role in the classroom, and giving them more responsibility for the material covered and learned, increases their motivation to pay attention in class, as well as think about the material outside of class. This increased engagement and motivation may also lead to deeper learning and greater long-term retention of the class material” (Auman 2011).

(Sources Slide 9)

Auman, C. (2011). Using simulation games to increase student and instructor engagement. *College Teaching* 59(4), 154–161. <https://doi.org/10.1080/87567555.2011.602134>

Hertel, J. P., & Millis, B. J. (2002). *Using simulations to promote learning in higher education: an introduction*.

Sterling, VA: Stylus Publishing, LLC.

Vlachopoulos, D. & Makri A. (2017). The effect of games and simulations on higher education: a systematic literature review. *International Journal of Educational Technology in Higher Education* 14(22), 2-33. <https://doi.org/10.1186/s41239-017-0062-1>



Our method for designing a simulation based instructional session can be boiled down to two separate 4 step processes. The blank template above can be used for note taking and design. A basic description appears below, and we will explore a specific example in later slides. This model will assist you in taking basic steps towards integrating simulation based learning into your teaching or instruction.

The “Design” portion is done in advance of the instruction session. It involves:

1. Identifying the **skill** you wish to teach. Any kind of skill to be developed, concept to explore, or related item can fit well in here. Pay attention to the level of mastery you wish your students to attain by focusing on the verbs you use (Bloom’s taxonomy is great for inspiring creative thinking here). This is the drafting of your learning objectives.
2. Next identify a **hook**. This is the fun part that will capture your students’ attention. It should be vaguely related to your skill being taught – this will make more sense as we progress through the model – but needn’t be too close.
3. The think of a **scenario**. This is some kind of narrative to insert your skill & hook into. It should have some kind of role(s) for the students to play, and be different enough for students to feel they can “become someone else” without being too unbelievable.

4. Finally, identify some kind of **activity** to insert into your scenario. The activity is a way to practice the skill by actively doing it, and should reflect the level of mastery you have decided upon. Find ways to focus their attention on the core of the activity by removing how much thought & attention they need to pay on unrelated items.

Once the design is completed, you have 4 main phases of the instructional session itself. The is your opportunity to “Engage” with your students.

1. First, set the scene by immersing yourself and your students in the narrative of the scenario. Icebreaker activities are excellent for doing this, as they allow students to become comfortable with each other & the narrative through a light, fun exercise.
2. Next, quickly provide them with any background knowledge, activity structure & props, or other supplementary knowledge, skills, and items they will need to complete the man activity. Keep this portion as brief and brisk as possible. Couch it all into the arc of the narrative.
3. Next, guide them through the activity itself. Allow a healthy amount of time for this.
4. Perhaps most importantly, exit the simulation and allow for ample time to debrief. Facilitate a discussion about what the students learned, how they can apply the skills, concepts, and other items practiced into different situations, and explore any difficulties they encountered.

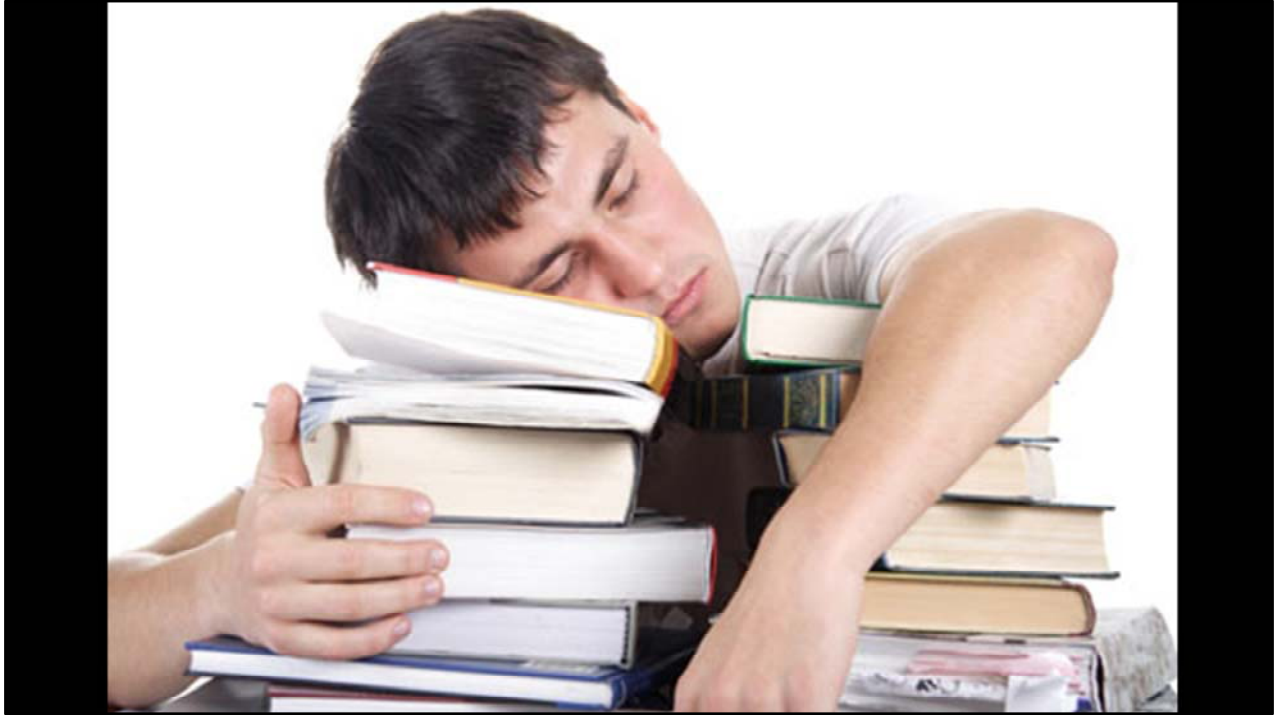


This begins the specific example of how we (Chris & Nick) designed a simulation based workshop, new for the 2018 First Year Experience, *Fight the Fake: Combatting Deceptive Media with a Fact-Checking Mindset*. This workshop was a collaboration between our Teaching & Learning and Reference Services departments, both housed within Thompson Memorial Library.

We knew we wished to teach students about information evaluation & analysis...

Retrieved from: [https://ucom.osu.edu/gallery-full/1/thompson\\_oxley\\_8536.jpg](https://ucom.osu.edu/gallery-full/1/thompson_oxley_8536.jpg)





...but wished to do so in a manner that wouldn't put everyone to sleep. "Information Evaluation" isn't the sexiest concept to teach.

This is our **skill**.

Image Credit: "sleep-learning" <<https://www.flickr.com/photos/orvice/4410504377>> by Xiaobin Liu <<https://www.flickr.com/photos/orvice/>> Lisenced under CC BY-SA 2.0



Our solution was to tie everything to fake news. We knew that the underlying skills, concepts, and competencies that informed evaluating news sources were nearly identical to those that informed evaluating academic sources and information.

This became our **hook**.

Image Credit: "Fake News"

<<https://www.flickr.com/photos/128406688@N07/32289417256/>> 9c) by opposition24.de

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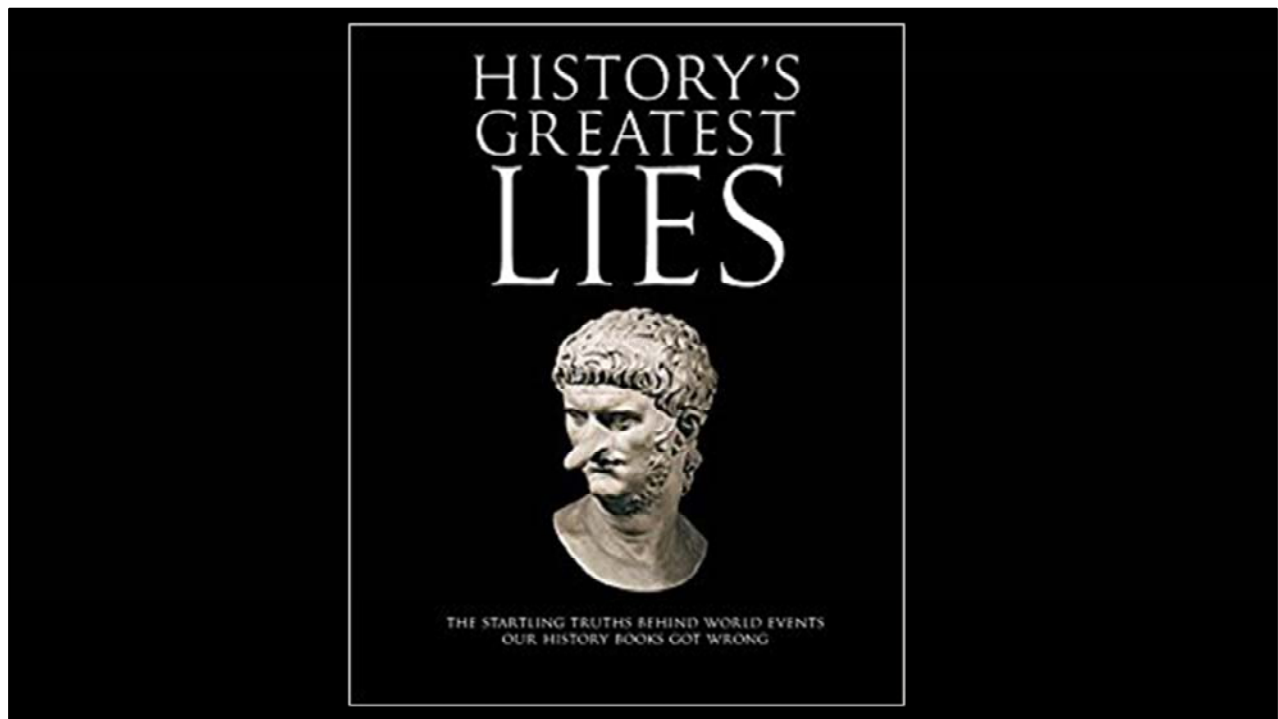
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In order to better engage our students, we conceived of a newsroom based simulation. We spun a narrative in which our students were new hires at “RealLegitNews.com”.

This was our **scenario**.

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To better engage them, and to help their “professional development” as newly hired fact checkers, we provided them with a historical look at fake news, including a well documented example from over 3,300 years ago.





We then provided them with a real news story, tied to our narrative as one published by an intern without being run through our RealLegitNews.com fact checking process. Their task was to evaluate the story based on specified criteria and decide what act to take.





The class was divided into groups in order to meet the “publication deadline,” and tasked with separate parts of the evaluation. They then reported their findings and **why** they made the evaluation they did to the class. This image shows an example of a student interacting with the template.

Their use of this template to evaluate a real news source was our **activity**.



We then left the simulation (exited the matrix) to discuss what the students learned and how they could apply these skills in other settings. Some conversations were quite lively, with talk of use in classes and on academic sources, using the method to evaluate their own writing or held beliefs, or to inform constructive conversations on difficult topics.

This was our **debrief**.

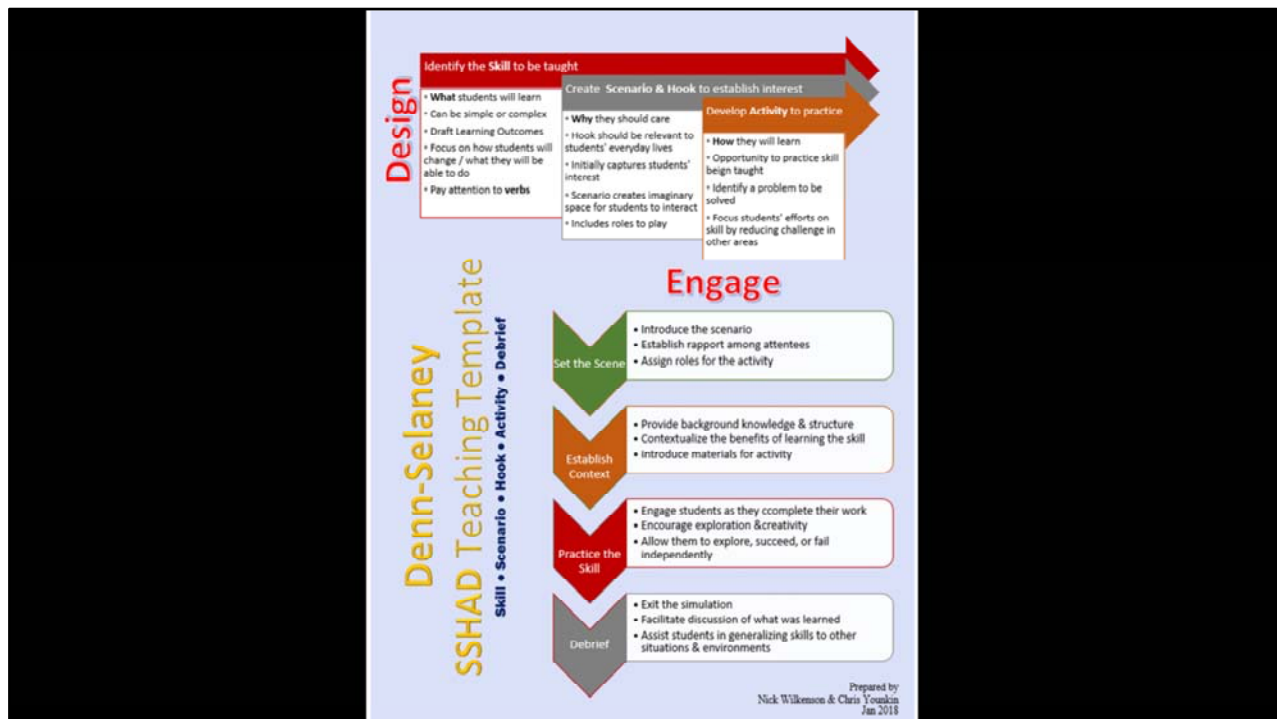
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- “I have already used this session to help my STEM scholars research paper”
- “I learned...tips and tactics used by news media to fact check articles [and] also learned how to...apply them to the news articles I read myself”
- “I will use these same strategies as I progress through my first year through college, and hopefully throughout the rest of my life.”
- “This is important because I will...need to make sure that I am being fair and unbiased with my [own] arguments.”
- “I am planning to use this template to decide what sources to use for upcoming research projects...”
- “I learned a lot...especially from the hands-on experience we did during the session.”

Our workshop feedback was very positive. These are some quotes pulled from many demonstrating they understood and were able to generalize and utilize the skills they learned in our workshop in other settings important to them as students.



Our original presentation format involved a simulation experience as well. This is a bit of humor in keeping with that simulation. The goal with all of this is to increase student learning through higher levels of engagement, playfulness, and enjoyment.



This is the full template, now filled in with suggestions for use. At this point, we distributed tasks to participants so they could practice applying this template within our simulation. All of the steps explored in our *Fight the Fake* presentation were replicated in this (conference) simulation.





As we exited the simulation (matrix) in our conference presentation, we set aside time to debrief at this time.

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