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04. Multimedia Design

Northeastern State University
Abstracts from the 2016 Oklahoma Research Day
Held at Northeastern State University

03. Fine Arts and Design

04. Multimedia Design

03.04.01 Simulations for Military Field Manual Instruction

Harrigan, Trevor Cameron University

Militaries have a long standing tradition of simulation and modeling for the training of soldiers and officers. The Prussian Army is noted as one of the first to use war games as a method to plan and refine operations (Dunnigan, 2000). However, according to the National Research Council Committee on Modeling, Simulation, and Games, one of the most compelling cases for game-based aids to the military is for basic skill and situational training. Starting in 2010, the U.S. Army commenced a five-year investment in the development of video games as part of its Games for Training program (Jenkins, 2008). In addition to this, the U.S. Army is investigating all other forms of interactive media and games for a wide range of training purposes. The purpose of this research is to explore the potential of interactive, scenario-based simulations, developed along instructional design technology principles, in order to teach learners content found in U.S. Army Field Manuals.

03.04.02 Physics in Video Games

Cook, Justin Cameron University

The physics in a majority of video games differ greatly from the rules of physics that you might learn from a textbook. Most games are made to entertain the player and thus each game has different rules for physics. These rules may also change at any moment during the game. For example, if one pushed a ball down a hill, the ball would roll to the bottom of the hill. However, in a video game, the ball may only roll halfway down the hill before stopping or doing something else. The purpose of this research is to determine the difference between the use of physics in the real world and video games. A literary review was conducted to determine what type of video game physics are being used and altered for gaming purposes. Anyone who has played Halo has probably noticed, Master Chief jumps much higher and at a slower speed than a normal human thus allowing the player to aim while jumping. This research will explain what makes video games so entertaining for players, through application of having their own unique laws of physics.
03.04.03  Improvement of Art Galleries through interactive displays

Shepherd, Amber  Cameron University

Artist Statement: Art galleries around the world are expanding their installations with the aid of interactive art and digital media. Viewing artwork turned into interactive displays that allow for visitors to fully immerse themselves into the experience. As an extension of their art interpretation and visitor outreach programs, Cleveland Museum of Art (CMA) has expanded their art galleries to include touch screens and interactive displays. Applications of technology gives each guest a chance to personalize their own visit; allowing for different ages and lifestyles, they experience art in a way that is unique to them.

03.04.04  Curtailing Gun Violence through Education

Miller, Sonnie  Cameron University

Artist Statement: The recent series of firearm related incidents in our schools and cities has caused many to call for action to find solutions to this problem. The "shoot first, ask questions later" mentality is proof that we need educational programs taught in the schools as well as the private sector. An Oregon NRA certified instructor teaches children firearm safety and requires a parent to attend the class with their child. There are diverse programs such as the NRA’s Eddie the Eagle program that teach firearm safety. While none are perfect, they all impact children’s views and actions on the safe use of firearms. Some school districts are looking at the possibility of adding firearm safety classes to the curriculum alongside sex education and physical education. My literary review suggests that more research is needed to determine the effectiveness of firearm safety programs for children.

03.04.05  Preventing Bullying

Jackson, Karisha  Cameron University

In most elementary and middle schools across the country, bullying is a social issue. At some point during adolescence almost everybody has experienced some type of bullying. Nearly 28% of all students ages 12-18 reported being bullied physically, verbally, or online at least once during the survey year, according to one U.S. Department of Education report (2013). Bullying victimizes a certain person or particular group. Bullying causes depression, suicidal thoughts, low self-esteem, and loneliness. With social media cites being so popular, the bullying does not stop at the school, it continues into people’s homes through the internet as well. The results of this study will display ways to prevent and reduce bullying.

03.04.06  Gamification from Action Script to Execution

Wright Smith, Linda  Cameron University

Artist Statement: Gamification has been used for creating marketing, educational, and training artifacts that attract and maintain target audiences’ attention and interactive involvement in the gaming assets. So what is gamification? "Gamification involves the identification, extraction, and application of individual game elements or limited, meaningful combination of these elements" (pg. 754, Landers, Richard, Developing a Theory of Gamified Learning: "Linking Serious Games and Gamification of Learning," Simulation & Gaming 2014, Vol. 45(6) 752-768.) The Illustrations below review the elements of gamification through the development process of one interactive simulation.
03.04.07 The Benefits of Children and Pet Interactions

Northrip, Jessica  
*Cameron University*

ARTIST STATEMENT: Young children show competence when choosing among multiple plans of action. They are even using trial and error for discovery learning. It has been shown that a child's involvement with a pet can open the door to social interaction, reading, speaking, and learning. Interactive digital pets can help a child's development when an actual pet is too overwhelming or unwelcome in the home. Digital interactive pet care simulations are less competitive in comparison with the majority of today's games. Digital interactive pet care games have little negative influence on a child. The simulation does show the cause and effects of a child's treatment of a live pet without the possibility of allergies, occasional accidents, or misplacement of the pet. A pet care simulation is not only perceived as fun for children, it can also help build the basic knowledge of taking care of a pet, before owning one.

03.04.09 Do You Have What it Takes to be a Photographic Sharpshooter?

Mace, James  
*Cameron University*

Artist Statement: Since the partial successful creation of a photographic image by Nicéphore Niépce in 1816, technology has improved to the point that today's inexpensive digital cameras can capture millions of bytes of information to create high quality pictures. Many believe they are brilliant photographers although they lack the basic skills needed to create photographic art pieces. My experiential simulation will help people learn the basics of good photographic techniques while going on an imaginary photographic adventure.

03.04.10 Comic Book Style Simulations

Dayhoff, Kaytlen  
*Cameron University*

I was elected to create a mini comic book due to my intrigue in graphic arts and for superheroes. The book would be a short story with user-interactive choices that could potentially change the entire story all together. To research this, I had to first think about the way this project should look. It was going to be a comic book, that was simple enough to understand, but there was more information required before I could get started. I found a few websites online, detailing the structure and layout designs of common comic book pages. These articles showed examples, provided downloads, and also gave measurements that would help me to create my very own blank comic page. The pages can be any number of shapes and patterns, having one full page of graphics, or three sub-boxes in the corner; the results are endless. Most comic book structure today are drawn at a 10 X 15” ratio, so the tricky part is, just getting everything else to fit inside. The visual parts of the process will take more time and practice to accomplish. A few pdfs also went into the research, such as "Illustrating Praxis: comic Composition, Narrative Rhetoric, and Critical Multiliteracies," by Kathryn Comer. In her article, Comer talks about how comics are more focused on reading then they are as a visual. While the major separating factor of a normal book to a comic book is in fact the graphic designs, it is true that the comics would be nothing without the narrative.
03.04.11 Prejudice-Reduction Simulations

**Johnson, William** *Cameron University*

There have been many problems dealing with race for countless years now. One group getting treated unfairly and the other group like kings and queens. What if the shoe was on the other foot? In 1968 a third grade teacher named Jane Elliott conducted an experiment called Blue Eyes-Brown Eyes. “For one day the blue-eyed children were treated unfairly and ridiculed (e.g., given shorter recess time than other students, told they were lazy) while brown-eyed students were praised and given privileges (Byrnes & Kiger, 1992).” This study showed kids and adults understand the effects of prejudice better when they have witnessed it firsthand. Prejudice-reduction simulations have been known to change people’s attitudes while having an impactful meaning on their lives.

03.04.12 Learning history through simulation

**Omer, Mohammed** *Cameron University*

At the end of the 14th century there started a new European resurgence of intellectual and artistic activities that became known as the Renaissance. While the Renaissance provided us with beautiful art, fantastic ideas for science and intellectual research, many high school students are not excited about taking history classes. When asked why they are not interested in taking history classes, students identified the subject matter and the teaching methods as boring. In my experiential simulation, I will have students’ time travel back to 15th century Italy to experience the vibrant changes that were taking place because of the intellectual, scientific and artistic creativity taking place at that time.

03.04.13 Web Development Team: The Roles, Responsibilities, Relationship

**johari, abbas** *Cameron University*

**Shepherd, Amber** *Cameron University*

**Miller, Sonnie** *Cameron University*

An ongoing university capstone project includes teams to compete with each other and develop an authentic site for local corporate partners. Managing students with different skill sets and majors has been a challenge. This presentation reports on an ongoing study that examines the important role of a team leader in fostering intrinsic motivation by arranging her team, designing roles, and speaking to learners in ways that meet their needs for relationships. The theoretical framework for the study includes self-determination theory (Deci & Ryan, 1985, 1991). Self-determination theory focuses on three innate human needs: competence, autonomy, and relationship. The Grounded Theory method of qualitative research is selected to obtain and analyze the data. Our anticipated results would be an increase in students’ relationship needs and hence satisfying connections with their peers and teachers.