BRINGING FUN INTO LEARNING USING GROUP GAMES AND PROJECTS

by Cheryl Tokke, City University of New York: Queensborough Community College

Full Paper
Experiential Track

The COVID era forced education out of the physical classroom and into the online environment. The loss of face-to-face interaction, especially in a group environment, eliminated learning processes that were based on human socialization. Learning from a computer screen did become an efficient way to expand the physical space of learning out of the classroom and into one's private/public space in the home office, living room, game room, or wherever a student might join the online meeting. Online group games and project to some degree continued, but the organic community was in many ways lost.

With the post-COVID return to the classroom, it will be critical to reengage the social interaction and relationships, especially in activities that bring the human touch between students. Used successfully prior to the COVID shutdown, the following paper profiles a number of activities that will bring together collaborative group projects that are entertaining and educational. Panitz,(1999) states, "Cooperative learning is defined by a set of processes which help people interact together in order to accomplish a specific goal or develop an end product that is usually content specific. It is more directive and closely controlled by the teacher" (p. 1). "Cooperative learning has been linked to increases in self-esteem, attendance, time on task, enjoyment of college classes and motivation to learn" (Nagel, 2007, p. 364).

This paper describes a series of in-person classroom game activities based on the models of Design and Systems Thinking that were successful for the seven years prior to COVID, and now in the return to the classroom. Design and Systems Thinking incorporates fun game style learning using collaboration groups. This session demonstrates practical examples how this is used in the community college classroom. Integrating these theories into fun competitive challenges such as spaghetti and marshmallow structures and egg drops, they are adapted for a young adult student. Successful especially with first year and international students who have a difficult time making friends with their American colleagues, it breaks social and cultural boundaries. Focused on learning being achieved from the students interacting with one another in a relaxed and fun learning environment, design thinking advances student learning to team-based culture where the sum is greater than the individual parts.

As Senge argues, students will learn more through collaborative engagement than individualistic learning through a system of making connections with one another and the world. In this workshop format participants will be divided into groups to create actual practical object lesson projects using design thinking techniques with games. Important to this pedagogy are the long-term soft skills training that students learn through experiences in the classroom. As Senge (2006) has shown this type of participatory education with others establishes relationship building techniques that are cross-networked. It is "thinking together" (p.10) in building "collective smartness". Johnson & Johnson and Smith (1989) determined that cooperative learning results in an increased in higher level reasoning, and an increase of new ideas. Since students are required to work with others, cooperative learning can help them build better relationships, leading to stronger interactions and contributing to higher self-esteem (Marks & O'Conner, 2013, p. 147). Design Thinking is a core theory for understanding the use of group games in a diverse urban environment. With the significant attention fun distractors that exist in the city, and really anywhere online these days, it requires effective pedagogy to include design drawing it out from the traditional lecture to student power posture.

Design thinking has emerged in recent decades as a critical formula for achievement in the 21st century that integrates art into the STEM disciplines. STEAM is a movement championed by Rhode Island School of Design (RISD) among many others and widely adopted by institutions, corporations and individuals. It has created a drive of researchers, academics, educators, and artists who believe that in this next generation learning needs to sustain its STEM but this must be integrated into art and creative learning in apply STEM into design.

Design thinking through interactive learning has found strong growth in pedagogy through variations of diverse urban learning communities, cohorts, and community service learning. It is through interactive activities with one another, that students are able to find practical application of the theories and equations learned in the formal classroom. This is the culmination of STEAM wherein the hard sciences are balanced with the collaborative work of design within a collaborative group. STEAM allows the student to think with the mind and make with the hands. In this realm, DT@HSG built a process-based system: Define, Needfinding and Synthesis, Ideate, Prototype, Test, Redefine (RISD).

Design thinking as STEM to STEAM is being applied in various schools in New York City. The Blue School was formed out of a theater context with students working on various types of creative sculptures, art pieces, and technology. The Cathedral School on the Upper Eastside incorporates a strong art fusion into the regular classes. The PEP Prep in Downtown Brooklyn partners with CUNY The New York City College of Technology to teach high school juniors and seniors in the hard sciences and fuse it with art design, particularly with attention to computer graphic design. The New York City Department of Construction and Design facilitates STEAM training for faculty and the adaptation of STEM courses with the design element. The problem for many of the students in New York City public schools is they have no access to these programs that are often occupied by those with private tutoring, extra educational advantages such as technology, and home support. Thrive Collective is a New York City based non-profit organization that works with public schools in underprivileged areas, using collaborative mural art to teach students motor and design skills in creating and executing a community based mural on a motivational theme. Teaching artists work with the students in design and thinking.

This paper shows how the theory of design thinking is applied in a diverse urban community college in New York City where the student population consists of minority groups of up to 120 home languages, including several Being commuter students there is a dearth of relationships on campus with students returning 'home' after classes. The classroom, then, becomes one of the key locations where students meet others from week to week requiring intentionality by the professor to not only build group relationships but to accomplish it with fun activities that double as experiential learning. These games were incorporated into marketing and management classes in the very beginning of the courses for the seven years prior to COVID. In the return to the classroom they are being reinstituted into the course curriculum.

The paper will demonstrate six successful games used consistently and successfully.

TALLEST TOWER (MARSHMALLOW CHALLENGE)

In the Tallest Tower exercise uses pre-determined groups work together to design and build the tallest tower within the classroom hour that can stand free-hand. The tallest tower wins. The learning goals of this activity is teamwork, interpersonal skills, collaborative leadership, and working together as a team. This is a useful life skill.

Materials: small marshmallows, dry spaghetti

Fig. 1 Marshmallow Challenge Photos

EGG-DROP CHALLENGE

The Egg-Drop Challenge uses group ingenuity in creating a packaging method to drop a raw egg without breaking it. It is used in a marketing class as a way to illustrate packaging in real-world experiential learning. The mechanism is created, the students go to stairwell, as a group, and then drop the packaging contraption from a designated height. This could also be done by stepping onto a chair, and then dropping it from the chair. Students must use collaborative design and engineering skill. The learning goals of this activity are problem solving, complex thinking, and creative design thinking. Indeed, creative engineering is a key component to completing this task successfully.

Materials: Raw egg, cardboard box, drinking straws, paper bags, other recycled materials.
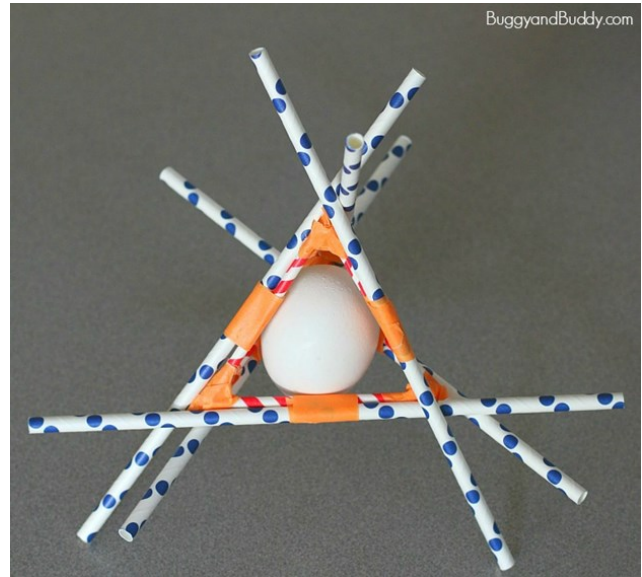

Figure 2. Egg Drop Challenge (photo credit BuddyandBuggy.com)

PRECIOUS GIFT CHALLENGE

The Precious Gift Challenge places students into pairs where they use a series of craft materials to present a meaningful gift to the partner based on having become acquainted. It enhances the emotional connection of student in a simultaneously organic while structured learning method. After pairing up, they spend a few minutes getting to know simple facts about one another. Then they make a creative gift to give the person using the materials, along with some motivational statement. These gifts have varied from a mirror, to a heart, to a piece of jewelry, to a mini-trophy. This is a design thinking exercise in taking a simple idea and using provided materials create a product that gives emotional empathy. Self-leadership is essential as one must take initiative on their own while working in pairs. So it is autonomous in one's own creation, but accomplished within the confines of a duo.

A variation on this game is to have students make a mirror and then in the face to face interaction they look in the mirror themselves to state how they see themselves, and then have the partner look into the mirror to describe themselves. The partner makes their own mirror and does the same to the partner. Each person is a "precious gift". The teacher can also make some generalized motivational statement about each person's value and worth.

Materials: tin foil, colorful pipe cleaners, masking tape, popsicle sticks

Figure 3: Precious Gift Photo of Materials

DRIVE THRU ROLE PLAY

Another practical games used is this fun game learning design are Drive Thru role play where students 'act out' a McDonald's drive thru. This is a fun way to practice human interaction with customer service. This is a job design exercise where a fun activity is directly applied to a real job situation. The process of speaking is as follows:

1) "Welcome to McDonald's. May I have your order please?"
2) Listen to order. Repeat if for accuracy. State the total cost. "Please drive to the second window."
3) Take the money. Make Change.
4) Give customers drinks, straws, and napkins. Give Food to customer.
5) "Thank you for coming to McDonald's." (Principles of Management, 2020. P. 187)

HUMAN SCAVENGER HUNT

Students are are given fact sheets to roam the classroom and have others autograph human social facts that are true for them. The person who has their sheet completed first is declared the winner. A good variation on this is students work with the professor to create the items on the scavenger for additional collaborative learning. Otherwise, the professor creates the fact sheets such as

_____not born in the United States

_____never been on an airplane

_____is a single child with no brothers or sisters

_____favorite sports team is (_____).

_____favorite food is (_____).

_____wearing something red.

_____slept in today.

....and so on. It is best for a professor to think through a list ahead of time that will be interesting to the specific class, does not make anyone uncomfortable, and complies with school policies and rules. The learning goal for this game is experiential learning using physical movement. In a post-COVID environment wherein students are buried in their phones and laptops, gaining their learning off of an electronic screen, this game forces them however begrudgingly to get out of their seats to find information. Additionally it builds emotional connection to other classmates and breaks the impasse of electronic alienation, especially if used in one of the early classes in the semester.

PUZZLE GAMES

These are humorous class opener mind twisters that are experiential learning exercises. Students are each given a sheet of paper with word puzzles such as the one below. Upon "go!" the students work to figure out the puzzle as quickly as possible. It applies well in a unit on human resource management as one critical element of selecting potential employees is testing. Ability and performance testing is used to determine whether an applicant has the skills necessary for the job. This is a word puzzle.

Another way to do this is to have students randomly ask classmates if they know a word puzzle in one of the boxes. The person signs that box if they know it. Racing around to different students the goal is to have all the boxes signed. The first person to have all the boxes completed is the winner.

Another method is to divide into small groups of four or five students. They collaborate together to figure out the puzzle. The first group to figure out the whole puzzle is the winner.

A sample is below.

Fig 4: Puzzle Game Matrix (Luthens, 2008. P 337).

SUMMARY

Design thinking through interactive learning has found strong growth in pedagogy through variations of learning communities, cohorts, and community service learning.

It is through interactive activities with one another, that students are able to find practical application of the theories and equations learned in the formal classroom. (RISD) The Design and System Thinking games are an excellent method for students to reengage organic human relationships in the post-COVID classroom where students need to get to know one another. While providing the entertaining learning atmosphere it provides a tangible way for students to learn core marketing and management principles such as soft skills, group design, collaboration, cooperation, and multitasking.

Becker in *Art Worlds and Collective Activity* argues, "all artistic work...involves the joint activity of a number, often a large number, of people." Every art form requires the collaborative efforts of a number of individuals from the painter, to the critic, to the marketer, to the audience, to the one whom makes the paintbrushes, to the purchaser who receives a tax break from the government. These represent a "bundle of tasks". Similarly, the group games presented in this paper applies this principle wherein each person in the group plays an integral role in creating and executing the project, from the pair making a gift for one another, to an organized group designing packaging or engineering a tower, to a mass group where an individual receives the cooperation of nearly a whole class to complete their game. (Becker, 1982. P. 1).

REFERENCES

Becker, Howard S. "Art Worlds As Collective Activity" Art Worlds (Berkeley, Los Angeles, London: University of California Press, 1982.)

Johnson & Johnson and Smith (1989) Cooperative Learning: Improving University Instruction By Basing Practice On Validated Theory Journal on Excellence in University Teaching, April 2013.

Luthens, Fred (2008) Organizational Behavior, McGraw Hill, New York, NY.

Marks & O'Conner, (2013) Understanding Students' Attitudes About Group Work: What Does This Suggest for Instructors of Business? January 2013 The Journal of Education for Business 88(3):147-158 DOI:10.1080/08832323.2012.664579

Nagel, J. 2007. Epistemic Intuitions First published: 14 November 2007 https://doi.org/10.1111/j.1747-9991.2007.00104.x retrieved October 2020

Panitz, T. 1999. Benefits of Cooperative Learning in Relation to Student Motivation. In M. Theall (Ed.), Motivation from within: Approaches for Encouraging Faculty and Students to Excel, New Directions for Teaching and Learning (pp. 59-68). San Francisco, CA: Josey-Bass Publishing

Principles of Management. Chapter 9: Designing Adaptive Organizations. 2020. McGraw Hill. New York, NY.

(RISD) Rhode Island School of Design www.risd.edu

Senge, P. 2006. The Fifth Discipline: The Art & Practice of the Learning Organization. New York: Currency Doubleday. P. 10