

The Value Of Collaboration And Game Play

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ABSTRACT-- *This study explores the use of activities in presentation of information to first-year students at an urban community college. To facilitate student orientation to campus resources we presented information in both a game-play format and reading activity. Students were quizzed on the application of this information. Results were contrasted with a control group who did not participate in either activity. Although inconclusive based on the scope of this study, results suggested that participation in an activity contributed to short-term retention of information.*

Keywords— e-Learning, Developmental Skills, First Year Experience, Technology and Education

1. INTRODUCTION

1.1 Community Colleges in 21st Century: Cognitive Schemas of Millennials

Community colleges today serve a new generation of Millennials (students born between the 80s and mid-2000s) who grow up online with a digital interface for communication, game playing, social networking and academic engagement. These students have grown up in an environment of unlimited entertainment and social interactions, and they come to community college wired for assimilating information as it is presented digitally -- often in a video or computer game interface. Millennials may thus have different educational needs and expectations. (Howe & Strauss, 2003; Roehling, Kooi, Dykema, Quisenberry, & Vandlen, 2011). Millennial freshmen may respond well to a freshman orientation using game-based learning (GBL) because this type of learning mimics the varied hyper-kinetic and self-directed digital experiences for which they are cognitively wired (Prensky, 2001/2006; Johnson, 2005). This study piloted the use of a game and a collaborative activity to explore how these approaches might serve incoming students in gathering information about the college in freshman orientation.

Given their digitally rich backgrounds, Millennials enter community college with different learning expectations and competencies, which may present challenges in an educational setting. For instance, this generation of young people are ethnically diverse, self-directed and characteristically have high levels of self-esteem. (Twenge, 2006). Twenge (2006) also observed that, rather than just accepting what authority figures tell them, Millennials are independent thinkers, yet they are collaborative. Indeed, they gravitate towards interactivity. (Oblinger, 2003; Raines, 2002; Rainie, 2006; Prensky, 2001; Twenge, 2006). It is also important to note that because they have been raised in a multimedia, entertainment-focused environment, Millennials are easily bored and tend to expect variety and thus require high levels of stimulation. Indeed students in a study by Roehling et al (2011) consistently reported that active learning, for example, in class discussions helped them focus better, made it easier to pay attention, and stopped them from “zoning out.” (p. 2).

Community colleges must accommodate those learning expectations and competencies of young Millennials entering higher education today, or sustain high rates of attrition. Indeed, a noted trend in colleges across the country is that students drop out during the first three semesters. Bradburn (2002) reported that approximately one-third of entering college students leave the institution without a diploma, and these numbers are even greater for minority populations (Hodge & Pickron, 2004) and community colleges (American College Testing, 2004).

One way for institutions of higher learning to meet the expectations and accommodate the competencies of Millennials is to adopt pedagogical tools and strategies that foster an active learning environment to engage the individual student in his/her own learning process. To this end, collaborative learning (co-construction of knowledge) is one pedagogical approach that has been shown to benefit students in promoting learning attitudes and learning motivation as well

as achievement and self-efficacy (Sung, &Hwang, 2013; Kuo, Hwang & Lee, 2012; Schellens, &Valcke, 2005). Collaborative learning has been defined as a situation in which two or more people are involved in particular forms of interaction triggering learning mechanisms. In other words, participants are engaged in an activity to learn something together (Dillenbourg, 1999).

In truth, increasing retention rates necessitates a multi-pronged approach and one strategy is having freshman orientation through which students become familiar with the college and the resources that are offered to clarify expectations and personal goals (Tinto, 2006, p. 2). Shankar, Karki, Thapa, and Singh (2012) reported that an “orientation program was effective in significantly improving knowledge and attitude of students about different subject areas” (p. 61). Mayhew, Vanderlinden, and Kim (2009) further explained that “the final factor that played a significant role in explaining orientation’s impact on student learning involved student perceptions of their functional experiences, how orientation helped students learn how to access critical campus resources” (p. 338). Indeed, freshmen orientation and availability and access to information optimize chances for academic success. It is the colleges’ responsibility to make acquisition of knowledge and information accessible and engaging for incoming college students of the Millennial generation, and gameplay may be an effective way to do this.

To accommodate those learning expectations and competencies of young digital natives, educators are thus seeking engaging approaches to teaching and learning. Educators seek pedagogical tools that go beyond the traditional lecture format which seems to be too static and boring for Millennials. Sternberger (1995) suggested that an interactive teaching approach would engage learners, and one pedagogical tool that could effectively engage Millennials is gameplay.

2. LITERATURE REVIEW

2.1 What is a game?

According to Bayer-Hummel (2010), a game is “an interactive process that lends itself to the acquisition and appreciation of knowledge by reviewing and reinforcing information...Games not only teach but are also fun for the participants.” (p. 13) Baid and Lambert (2010) maintain that games can inject fun to affect active learning when the game is planned in a way that facilitates the achievement of specific learning outcomes.

2.2 Genres of games

For the digital-age learner, a wide variety of games have emerged as pedagogical tools. Free web-based tools, e.g., *Mightybell*, have been used to create online interactive multiple choice, true/false, drag-drop matching, and cloze exercises (Carloni, p. 67). Others include task-based and game-based learning activities (Davis-McGibony, 2010), role-playing games and mapping content on more traditional familiar games like Monopoly or Jeopardy.

2.3 Pedagogical game-playing

According to Alan Amory (2007), gameplay influences learning through visualization, experimentation, and creativity (Betz, 1995) and often supports development of critical thinking through discovery and problem solving (Rieber, 1995) and goal formation (Neal, 1990). Quinn (1994, 1997) argues that learning and educational practice need to combine the fun elements of games with instructional and educational system design that includes motivational, learning, and interactive components. The relationship between play and learning is very well established. Gee (2005) argues that instructional games should include skills, knowledge, and values to allow the player to experience how members of a specific profession think, behave, and solve problems (authentic professionalism). Shaffer (2005) suggests that such games should be based on communities of practice, reflective practices, epistemic frames (practice, identity, interest, understanding, and epistemology), and pedagogical praxis which are collectively described by Shaffer and Resnick (1999) as 'thickly authentic.'

Numerous studies have shown that there are advantages to using games as a pedagogical tool, as noted by Bender and Randall (2005): “The literature suggests that adult learners derive greater meaning from their learning experiences if they are given time to interact and make their own connections with the content. The outcome of a group gaming experience is heavily influenced by the willingness of the students to take on responsibility for their own learning” (2). Azriel et al., (2005) suggested that games can help create a safe learning environment and remove the stress of individual performance. Indeed, games have been used as instructional aids and studies have found that GBL improves academic literacy, deduction and induction, and technological literacy, what Prensky (2006) terms “21st-century skills.” Games promote the development of cognitive skills by situating and contextualizing learning, and utilizing a rule-based system (Dondlinger, 2007).

In community colleges that serve diverse populations, gameplay as a pedagogical tool may optimize engagement as suggested by Bayer-Hummel (2010) who claimed that college students from diverse backgrounds are good candidates for the

educational gameplay experience: “[...] regardless of age, economic, ethnic, or social background, people understand the language of play, and gaming is a creative solution for teaching this diverse population” (13). Especially, developmental students can benefit from the tension relief that makes gaming an efficient, user-friendly platform: “Games can be a tool for achieving a safe learning environment and removing the stress of individual performance” (p. 13).

2.4 Jeopardy!

Some traditional board or TV games lend themselves to adaptation as instructional tools to enhance teaching and learning, improve student learning and increase classroom interest and participation (Paul, S. & Messina, J, 2004). *Jeopardy!* © is one popular TV game show that is well-suited for educational purposes. Like *Concentration*, it is often used to counteract the boredom felt by digital learners listening to monotonous lectures and increase learner participation (Jirasevijinda, T. & Brown, L., 2010).

In *Jeopardy!* players are quizzed on information from different categories or domains. Each domain has 5 opportunities for play, each play worth a different value, e.g. \$100. In each round the player selects a category topic or domain and a value, e.g., “Admissions for \$100” in a game for freshman orientation to the school.

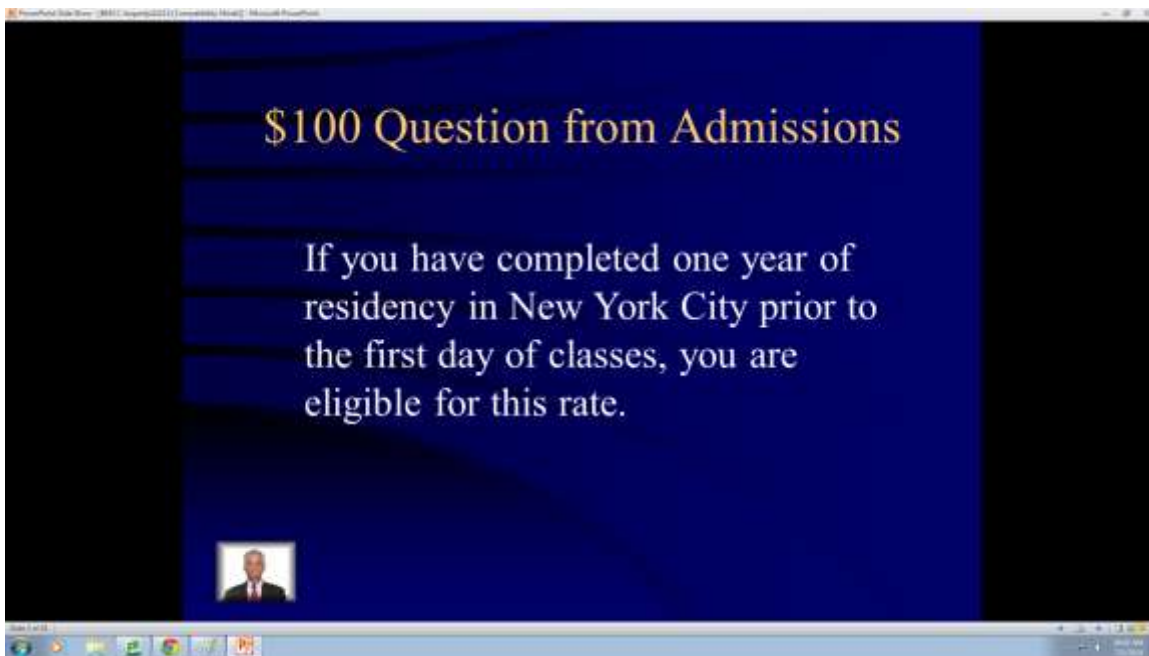


Figure 1. Sample category and valued answer

The student is given a clue or answer in a category like Admissions, e.g., “If you have completed one year of residency in New York City prior to the first day of classes, you are eligible for this rate” (Figure 2). The clues are assigned dollar values, with values increasing according to difficulty. The student must then provide an appropriate question, e.g., “What is in-state tuition?” The game format can be modified to adapt to content and classroom dynamics.

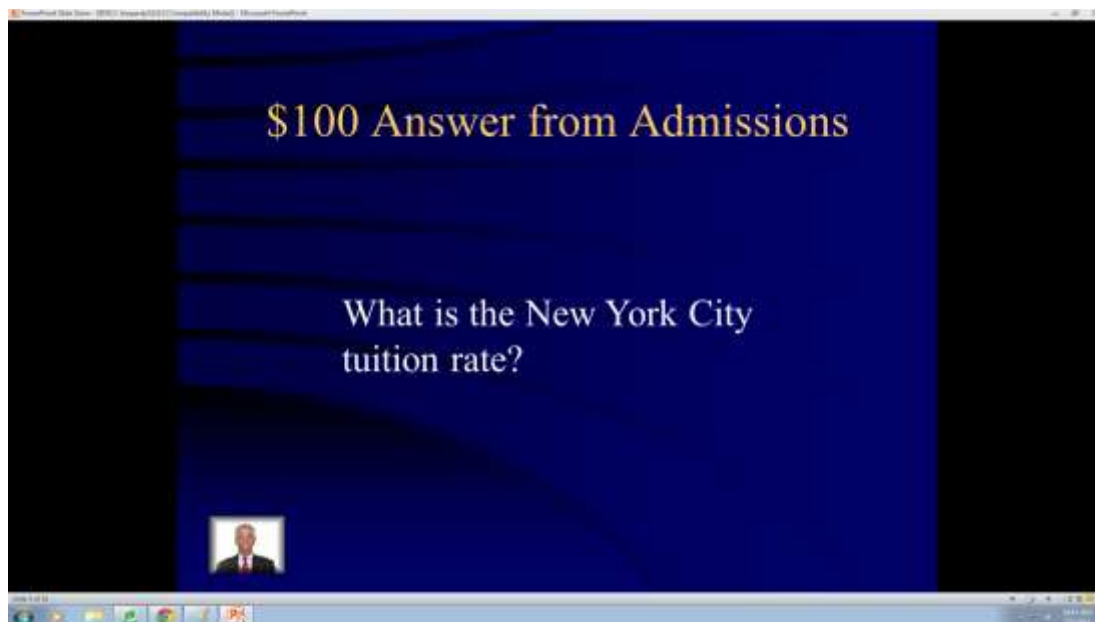


Figure 2. Sample valued question

One advantage to using a familiar game like *Jeopardy* is its flexibility: “Readily available web-based computer templates allow faculty to customize the Jeopardy game for use in any course” (Bender & Randall, 2005, p. 2). Another advantage is that gameplay like *Jeopardy* provides students with immediate self-awareness: “[...] the *Jeopardy* experience assessed the students’ ability to [...] self-assess their level of knowledge in relation to that of peers” (Bender & Randall, 2005, 2). A third advantage is teamwork, as Bender concludes: “In our experience, the use of games as teaching tools fosters collaborative interaction with peers. Technology in classroom instruction offers one possible example of an enhancement, rather than a substitution, for traditional, instructor-led teaching in physical and occupational therapy” (p. 6). A fourth advantage of using the game format is that students become immersed; according to Demirbilek, Yilmaz, Tamer (2010), “In his flow theory Csikszentmihalyi (1990) states that individuals who play games, lose themselves during game activities and fascinating subjects of oncoming events” (p. 718). Lastly, game platforms can transform an experience of content by virtue of the medium by itself: “Some researchers have discovered that gaming is ‘very effective as a teaching strategy for topics [...] that are mandatory, highly technical, or considered by the learner to be boring’.” (Jirasevijinda & Brown, 2010, p. 333).

Indeed, games have been implemented in curricula across disciplines. In nursing, games and gameplay have been integrated as part of an initiative by the National League for Nursing in 2003 calling for innovation in nursing education. This challenge called upon nursing educators to rethink conventional traditional pedagogies and adopt new approaches, for example, through the use of games (Pardue-Tagliareni, Valiga, Price-Davison, & Orehowsky, 2005). Inspired by this initiative, students in a Medical-Surgical nursing program participated in a Jeopardy game to review for their certification exam (Bayer-Hummel, 2010). In response to a similar call from the 1986 Bedford Committee of the American Accounting Association (pp. 168-195), college and university accounting faculty adopted teaching methods to provide for active and cooperative learning, including games like Jeopardy (Cook, 1997). In Computer Science at Uruguay University games such as puzzles and Jeopardy are incorporated into the curriculum as part of the systematic incorporation of Kinesthetic Learning Activities (de Kereki, 2010). To improve classroom performance and/or experience in psychology classes, *PsychOUT!* a computerized classroom game similar to Jeopardy is adapted to accompany the textbook (Paul & Messina, 2004). Jeopardy has been used in many training programs in medicine (D’Alessandro, Ellsbury, Kreiter, & Starner, 2002; O’Leary, Diepenhorst, Churley-Strom & Magrane, 2005; Speers, 1993), and also to teach psychosocial aspects of pediatrics (Jirasevijinda & Brown, 2010).

With the popularity of gaming among Millennials and so-called “Digital Natives,” and the powerful impact that playing games seems to have on learning, we wanted to examine whether playing a game would significantly impact students’ knowledge or awareness of resources available to solve these school-related problems. We proposed that an online game could help students navigate a variety of problems that they typically encounter during their college experience, e.g., juggling work and school time commitments.

3. HYPOTHESIS

Through participation in a *Jeopardy!* game about the departments and resources offered at a community college, students would become more familiar with the college and the services and resources offered than through a more common website search. By participating in gameplay, students would be able to assess a college situation and identify the department that would provide appropriate resources.

4. RESEARCH QUESTIONS

1. After playing a game of *Jeopardy*, would participants be able to identify the department/resource for specific questions/problems commonly encountered in the first-year college experience?
2. After participating in a reading informational text activity, would participants be able to identify the department/resource for specific questions/problems commonly encountered in the first-year college experience?
3. Would there be a difference in the performance of participants playing *Jeopardy* and those reading informational text in accurately identifying appropriate departments or resources in particular situations?

5. RESEARCH DESIGN

To support new students becoming oriented to the college and the resources offered, we attempted to assume the perspective of new students to identify information and resources they would need. To best orient themselves to the college, first-, second-, or third-semester students commonly seek information via the college website: they typically search, skim and scan the text on the website for specific information.

Offices at the college offering financial, academic, and personal assistance and resources were considered based on personal interviews, researching the college website, and consultation with college departments. Of those, five offices were identified as critical to the freshman year experience: Registrar, Financial Aid, Career Center, Student Affairs, and Academic Advisement. Information provided on the website was used to identify key discrete points of information in the application process to use as clues.

To compare student familiarity with the college based on a search of the website versus a game-based activity, information provided by the identified offices was used in the creation of two different activities: Reading informational text and *Jeopardy*. Participants were randomly assigned to one of these two activities.

5.1 Reading informational text activity

Pairs of participants read excerpts of text downloaded from the college website. They were asked to answer 26 questions about the college. Students were allowed to take notes or write their answers on their copy of the comprehension questions. They were instructed by the facilitators one-on-one regarding how to access the text and questions. They were asked to write the answers to the questions. Everyone was encouraged to work as quickly as possible.

5.2. Jeopardy Game

To examine gameplay as an instructional tool useful for students to gain information about the school, for practical purposes *Jeopardy* was selected to create a game about resources and departments at the college. For our version of *Jeopardy*, we downloaded a blank template in PowerPoint format found with a Google search (e.g. <http://www.edtechnetwork.com/powerpoint.html>). The template consisted of five categories with five clues.



Figure 3. Jeopardy game

The two different activities were made available via www.wikispaces.com.

Pairs of participants playing Jeopardy were directed to the wiki, where they downloaded the Jeopardy game. They were then instructed one-on-one by the facilitators how to play the game. They were asked to keep score for each other, tallying the value of each correct question for the opponent. Everyone was encouraged to work as quickly as possible.

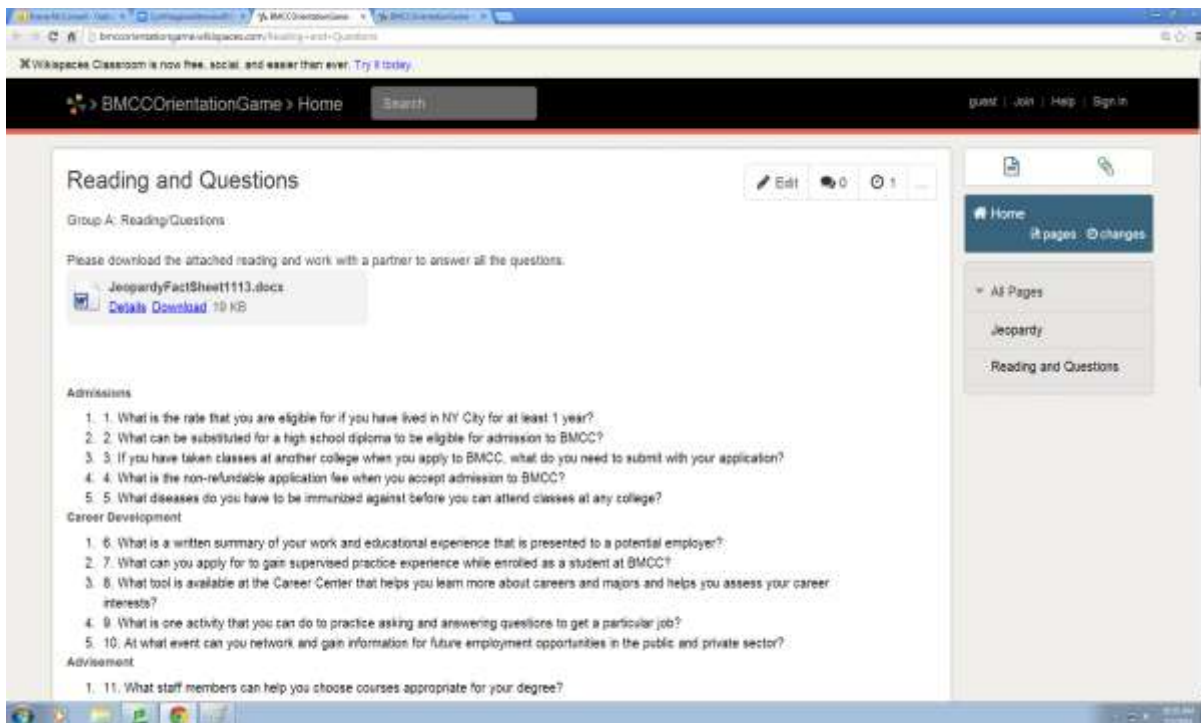


Figure 4. Reading for information: Comprehension questions

5.4 Participants

Participants were first-year students (either 1st or 2nd semester) in developmental writing or reading courses at a large urban community college. A total of 126 students participated in 1 of 5 different sessions.

Table 1. Participants (N=126)

Group by Activity	Students	Pairs
A: Jeopardy	32	16
B: Reading Informational Text	34	17
C: Assessment Only	60	60
Total	126	93

In sessions 1-3, participants were paired and randomly placed in Group A (Reading Informational Text) or Group B (Jeopardy) for a total of 33 pairs of students. In other words, 66 students in total worked in 33 pairs to complete either the Jeopardy game or the Reading Informational Text activity. Each pair completed a 5-question assessment upon completion of the activity. In the final session, 60 students in the control group completed the 5-question assessment without having participated in either activity.

To explore whether participation in a game had a significantly different impact on comprehension and retention of information as compared to a more traditional approach to information, i.e., answering questions based on reading an informational text, we compared the short-term retention and application of that information across the two groups. We also compared these responses to responses of participants in a control group who performed neither activity but completed a 5-question assessment.

5.5 Assessment instrument

Upon completion of their respective learning activities, each pair of respondents (n = 33 pairs) responded to an assessment comprised of 5 multiple-choice items, each describing a particular scenario. Participants were to choose the appropriate department to contact in that particular situation per information presented in the Jeopardy game and/or readings. Q1 required participants to identify the department where a transfer student would send his/her transcript. Q2 asked participants to identify the department to consult for an internship. Q3 asked participants to identify the department to consult when choosing a major elicited. Q4 asked participants to identify the office to submit the FAFSA form for financial aid. Q5 asked the participants to identify the department to consult to obtain verification of the student status, e.g., to establish eligibility for health insurance. (See Appendix A.)

Assessments were thus collected from 33 pairs of students, 17 of whom had read the informational text and 16 of whom had played Jeopardy.

In the final session, 60 students in the control group completed the 5-question assessment without having participated in either activity.

6. RESULTS

Table 2 summarizes the mean scores for each group's responses to the 5-item assessment. For Q1 the mean for the reading group was .94, for the Jeopardy group .54, and for the control group .45. For Q2 the mean for the reading group was .47, for Jeopardy, .81 and for the control group it was .47. For Q3 the mean for the reading group was .82, for Jeopardy .88, and for the control group .86. For Q4 on FAFSA, the mean for reading was .95, for Jeopardy .94, and for the control group .93. For Q5 the mean for read was .41, for Jeopardy .44 and for the control group .25.

Table 2. Group mean responses to 5-item assessments

Item	Reading (n=17)	Jeopardy (n=16)	Control (n=60)	Total Mean(n=93)
Q1 Transcript	.94	.54	.45	.60
Q2 Internship	.47	.81	.47	.45
Q3 Major	.82	.88	.86	.86
Q4 FAFSA	.95	.94	.93	.94
Q5 Verification of Status	.41	.44	.25	.31

Table 3 summarizes the total number of correct responses for each question across groups. According to the chi-square analysis ($p < .000$), a significantly greater percentage of the reading (94%) and Jeopardy (81.3%) groups answered Q1 correctly. Similarly, a significantly greater percentage of the reading (41.2%) and Jeopardy (43.8%) groups answered Q5 correctly, as compared to the control group (25%). There was no significant difference in the responses of the groups on the remaining items. Moreover an almost equal percentage of participants across groups responded to Q3 and Q4 correctly.

Table 3. Correct responses across groups

Group	Q1 Transcript	Q2 Internship	Q3 Major	Q4 FAFSA	Q5 Verification	Total N=
Reading	94.1% (16)	47.1% (8)	82.4% (14)	94.1% (16)	41.2% (7)	(17)
Jeopardy	81.3% (13)	37.5% (6)	87.5% (14)	93.8% (15)	43.8% (7)	(16)
Control	45.0% (27)	46.7% (28)	86.7% (52)	93.3% (56)	25.0% (15)	(60)
Total	60.2% (56)	45.2% (42)	86.0% (80)	93.5% (87)	31.2% (29)	(93)

7. ANALYSIS

The results on two items suggested that participating in a game or activity would make a difference in the performance of participants in identifying appropriate departments in particular situations. Q1 and Q5 showed the greatest difference between the percentages of correct answers chosen by the Jeopardy and the reading group versus the control group. The intuitive response to the Q1 transcript question was the office of Admissions but according to both a Jeopardy question/answer response and the informational text, the correct response was the Registrar. Participants who read the text or played the game were more likely to answer this item correctly. That is, in 18.8% of the people in jeopardy got the question wrong and 81.3% got it correct. The distribution of the results is not random, but there seems to be a pattern. The control group had a significantly lower response to this question according to the chi-square ($p < .000$). The interventions of either reading or jeopardy had an impact on knowledge. The same is true for Q5 regarding verification of student status. Students were asked to identify the office to which they would have to send verification of student status in order to get health insurance coverage on their parents' policy. It is likely that many of the students had never applied for health insurance as a dependent and would not have known the answer to this question without reading the text or playing the game.

Responses to the other items were mixed. The question about the internship elicited similar results from the reading group and the control group while the Jeopardy group had the fewest correct responses. The correct response is in some ways counterintuitive. A student might reasonably assume that he/she must apply for an internship in the Financial Aid office as part of their financial aid package. A correct response thus requires reading the text or prior knowledge or experience in applying for an internship.

Responses to the question about filing FAFSA were correct across all 3 groups, which in retrospect was not surprising. It seems reasonable to conclude that participants were already familiar with the application process for financial aid and FAFSA, particularly since this college serves economically disadvantaged non-traditional students the majority of whom apply for financial aid each semester, even the semester or year before they begin college.

8. DISCUSSION

This study was intended as a pilot study for the development of an app for a quest game for incoming students to orient themselves to the college, familiarize themselves with the resources and develop problem-solving skills for real-life situations they would encounter in navigating the system. In the proposed game students would create an avatar and

accumulate points on a leaderboard that would later be redeemable for additional services at the college. The present study was intended to explore whether engagement in gameplay would show a significant difference in knowledge acquired about college resources in contextualized situations.

Due to limitations of resources, we used a familiar game *Jeopardy*, which is popular in various educational settings to explore whether students playing the game would show any greater gains in familiarity with the college or in the application of that knowledge to solve a school-related problem. We wanted to examine whether engagement in gameplay would yield any significant differences in performance as compared to reading for information. The research design paired students for both activities in an attempt to measure gameplay as opposed to another activity. Students worked together in pairs to complete the assessment after these two activities. A control group of students completed the assessment without having participated in either activity.

The assessment consisted of five items describing a problem that a new student might encounter. While the differences in performance on all items across groups were not consistent, the mean scores on Q1 and Q5 for the *Jeopardy* and reading groups were significantly higher than the scores for the control group. This suggests that engagement with material through some activity contributes to short-term retention. An activity requiring cognitive and affective processing of the material may slightly favor retention of material reviewed.

The implications of the value of active learning in the classroom are evident. Given what we currently believe to be pedagogically sound, collaboration whether in gameplay or in a reading activity in pairs involves engagement with the material and information to create knowledge. This would suggest that engagement in an activity with information about the college during freshman orientation would familiar incoming freshman with the resources available.

There are, indeed, serious limitations to the study. First, these results are not conclusive, given the size of the sample and the scope of the assessment. The number of participants were too small to be able to provide valid and reliable results from which we could confidently infer the value of games as compared to collaborative pairwork reading informational texts. Second, the resources available over the lifetime of this project were hugely restricted with great impact on the scope and execution of this study. It would be necessary to explore the application of this approach in college orientation through the development of a game attractive to incoming freshman that would provide the opportunity for these students to explore the college resources available to solve problems they themselves are likely to experience during their academic career.

9. Conclusion

We had high expectations for the efficacy of the game format. We were convinced that gameplay would heighten learners' attention and have a significant impact on their performance. However, students in the *Jeopardy* game group did not consistently outperform students in the reading group or in the control group. However, students who played *Jeopardy* did perform on par with students who participated in a reading activity. This could be attributed to collaboration with a partner. Although this was a very small sample and the results were not conclusive, we were encouraged to see that participation in an activity resulted in some significant difference in performance and we would like to explore the possibilities of more challenging activities through game development and collaboration.

Appendix A

Informational Text for Group A

Admissions

What do you need when you enter BMCC? To be eligible for admission to BMCC, you need a High School Diploma, or a General Equivalency Diploma (GED). Also, if you have taken college classes for credit elsewhere, you will have to provide a college transcript with the application for admission. Additionally, before you can go to classes, you will need medical records. Health Law #2165 requires proof of immunization against Measles, mumps, and rubella in order to attend school if you were born after 1956.

Tuition and Fees

Be prepared when you are entering BMCC to pay some out of pocket fees. When an applicant accepts BMCC's offer of admission, he or she has to pay a non-refundable fee of \$100 to reserve a space. Like all CUNY colleges, BMCC charges tuition, but there are different rates depending on certain qualifications. The new BMCC student should find out the tuition rate he or she qualifies for. If an applicant has completed at least one year of residency in New York City before classes begin, he or she is eligible for the New York City tuition rate.

Career Development

Career Development is important for all community college students, and the Career Development Office has many resources. This office helps students with writing a resume, which is the written summary of your work and educational experience that you need to present to a potential employer. A Mock Interview is a way to practice asking and answering questions for a job opportunity. You can use the CareerZone tool available at the Career Development Center to learn more about careers and majors and assess your career interest. If you would like to gain supervised practical experience while in school, apply for an internship. At the Career Fair you can network and gain information for future employment opportunities in the public and private sector.

Advisement

The Academic Advisement and Transfer Center was created and designed to assist students in making a successful transition from a two-year college to a four-year college so that they can continue in their studies and pursue their bachelor's degree. An Academic Advisor can help you choose courses appropriate for your degree. A major is an organized collection of classes in a chosen subject (e.g. mathematics) or professional field (e.g. Accounting). If your GPA falls below minimum retention standards, the Academic Probation designation will appear on your transcript. If you want to change your major, you need to fill out Change of Curriculum form and submit it to the Registrar. Finally, the Transfer Library is a college resource of college catalogs and videos to research programs of interest to you after you graduate.

Financial Aid Facts

The mission of the Office of Financial Aid is to ensure that every eligible BMCC student has access to the financial resources needed to attain a post-secondary education and to establish and maintain systems and procedures that assure the level of accountability, compliance and program integrity required for participation in student financial aid programs. It's important to inquire about what funds might be available to you. You may be eligible for a scholarship, which is money that is awarded on the basis of academic merit. There is also has a program called work-study, which is money that you earn from a job obtained through the Financial Aid Office. Students must fill out the Free Application for Federal Student Aid (FAFSA), which is required by the government for application to any federal education aid program. The Financial Aid Web Lab is an online service to file a FAFSA or a NYS TAP application. The Expected Family Contribution (EFC) is the amount of money you and your family can reasonably be expected to use toward paying for a college education, which is used to calculate the amount of your Federal Pell Grant.

Registrar:

The Office of the Registrar coordinates registration for all BMCC students. Currently enrolled BMCC students may register themselves, change their program, look-up grades, and change their address online, by using CUNYfirst - our new online student information and registration system. CUNYFirst the online student information and registration system where students may register themselves, change their program, look-up grades, and change their address. The Registrar's Office stays in contact with students in a variety of ways. The Registrar's Office will send letters and emails advising you that you can sign up for classes a certain day and time, known as your Registration Date. Since grades are no longer sent to students by regular mail, students receive grades through their BMCC email account. Once you have completed registration, you will

receive a Confirmation of Registration, which shows that you've registered and serves as a bill. When I drop a course I can expect a refund within six weeks.

BMCC General Fact:

BMCC was established in 1963.

Appendix B Post activity survey for Group A and B

The image shows two screenshots of a SurveyMonkey survey. The top screenshot displays the first question: "1. Which activity did you complete?" with two radio button options: "Jeopardy" and "Reading and answering questions". A "Next" button is centered below the options. Below the button, it says "Powered by SurveyMonkey" and "Check out our sample surveys and create your own now!". The bottom screenshot shows the survey title "BMCCJeopardyApplied" and the text "Please take a moment to think about the resources available for students at BMCC and identify the relevant offices in each situation." It then lists four questions, each with three radio button options:

2. I'm now a college student in New Jersey but I'm applying to BMCC. I have to send my transcript from New Jersey to BMCC. Which office should I send it to?

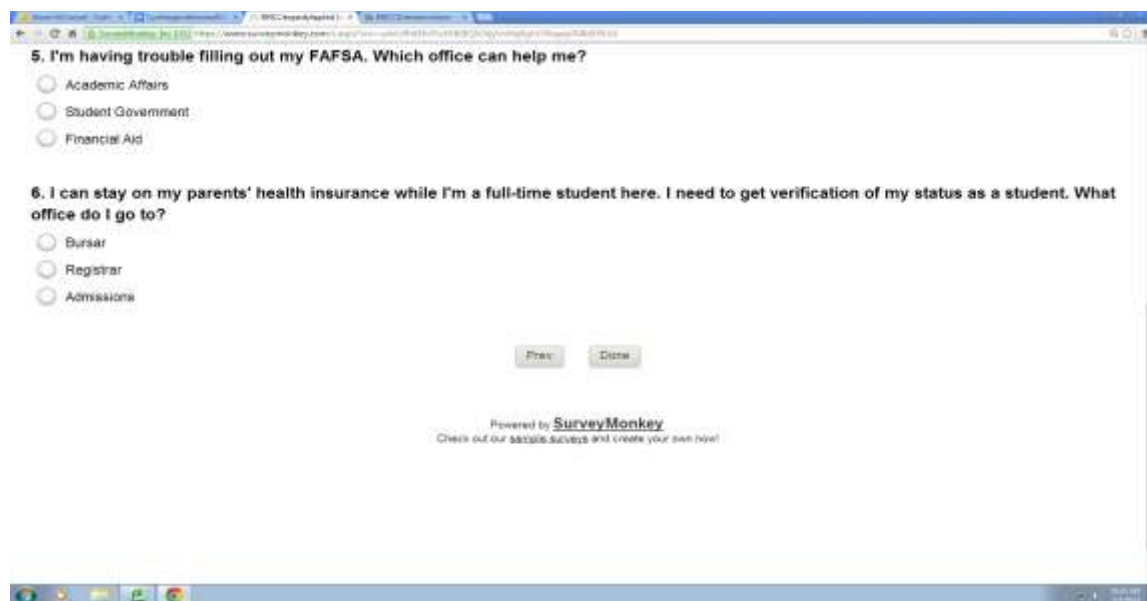
- Registrar
- Admissions
- Student Affairs

3. I'm interested in applying for a paid internship. Which office should I go to?

- Financial Aid
- Student Affairs
- Career Development

4. I want to register for classes for next semester but I don't know what I want to major in. Which office can help me choose a major?

- Academic Advisement
- Academic Affairs
- Career Development



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