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# **Intrinsic and Extrinsic Motivation**

## *Learning the Difference through an Online Activity*

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### **Abstract**

Making a distance learning class as interactive as a face-to-face class is challenging. The purpose of our learning activity is to provide distance education teachers with a tool to engage students using an online activity and to help students learn the theoretical concepts of intrinsic and extrinsic motivations. This fun and interactive online activity can engage the current generation of students and aid them in retaining information. Students attempt to complete a “Click Drag Type” puzzle by clicking the mouse, dragging the mouse, and typing on the keyboard to complete the puzzles in the activity (Jay, 2006). Throughout the exercise, students are required to submit postings on discussion boards. Students learn to identify factors that will motivate others, thus making them better professionals, administrators, and leaders.

**KEYWORDS:** Motivation, distance learning activity, student engagement

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As universities look for innovative ideas during these lean economic times, more departments are offering distance learning courses to bridge the gap in their budgetary shortfalls (Foster & Carnevale, 2007). As faculty look to convert traditional classes into distance learning classes, the transformation is relatively simple for course content. However, making a distance learning class as interactive as a face-to-face class is more challenging. Typical challenges often associated with distance education include accommodations for group activities, student input, and facilitating a sense of community among students. These obstacles can be minimized with the use of creative solutions and technological innovations. Good pedagogy is important for all educational platforms, for keeping students engaged, and for successful learning experiences (Barcelona, 2009). For example, Clayton (2001) discussed an interactive in-class activity for teaching the concepts of intrinsic and extrinsic rewards. His in-class activity demonstrated a good avenue for engaging traditional face-to-face students; however, creative modifications are needed to engage distance learning students. The purpose of our learning activity is to provide distance education teachers with a tool to engage students using an online activity and to teach students the theoretical concepts of intrinsic and extrinsic motivations through discussion board postings.

The Millennial, and upcoming “i” (i.e., iPod) or Net Generation, has played with toys and games embedded within advanced technology since birth; thus these students possess a high level of interest in learning with technology (Oblinger & Oblinger, 2005). An advantage to using gaming software within a distance education class is the ability to accommodate different learning styles (i.e., audio, visual, and tactical) and learning preferences (Prensky, 2007). Moreover, Randel, Morris, Wetzel, and Whitehill (1992) found that when using games for instructional purposes, games/simulations were at least 72% as good as conventional classroom instruction and 22% of the games were better because of active engagement and improved retention of the material by the students. According to Garris, Ahlers, and Driskell (2002), the “Holy Grail” for training professionals is to harness the motivational properties of computer games, to enhance learning and to accomplish instructional objectives.

### **Lessons Learned: Intrinsic and Extrinsic Motivation**

Motivations fall into two categories: intrinsic and extrinsic. Extrinsic motivators can influence a behavior, but are controlled by an external force (McLean, Hurd, & Rogers, 2008). Extrinsically motivated individuals seek rewards for their efforts such as prizes, recognition, or monetary awards. In comparison, intrinsically motivated individuals seek to meet the need for self-fulfillment and the need to feel competent. Individuals are intrinsically motivated when they feel their efforts will bring forth beneficial results, when they are in control of their fate, and when mastering the subject is more important than receiving an external reward (Russell, 2005). The following fun and interactive online activity can engage the current generation of students and aid them in retaining information they have learned.

### *Objectives of the “Click Drag Type” Online Learning Activity*

The objective of this online activity is to help students understand motivation and how people are motivated either extrinsically or intrinsically or through a combination of the two. Students learn to identify factors that will motivate themselves and others, thus making them better professionals, administrators, and leaders. In addition, these future leisure professionals can use this information to plan programs and promote activities to their constituents by focusing on both intrinsic and/or extrinsic motivational opportunities (i.e., rewards, self-improvement). This online activity can be used with any course that discusses motivation (i.e., leadership, administration/management, leisure studies, coaching, psychology, and counselling) and with all levels of higher education including distance education, traditional face-to-face classes, and hybrid face-to-face classes [e.g., using an online learning platform (e.g., Moodle, Blackboard Vista) with a face-to-face course].

### *The Puzzle: Click Drag Type*

Students attempt to complete a “Click Drag Type” puzzle (see Figure 1), by clicking the mouse, dragging the mouse, and typing on the keyboard to complete the puzzles in the game (Jay, 2006). As students interact with the activity online, they must persevere to complete the puzzle as they interact with the elements in the activity. This puzzle does not include instructions; therefore students have to work through the puzzle and tap into their motivations to complete the task. The task involves figuring out the code to unlock a puzzle.

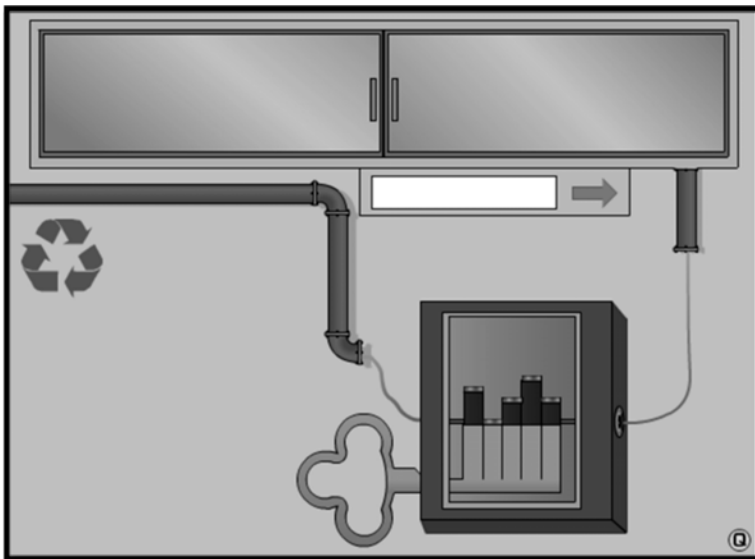


FIGURE 1: “Click Drag Type” Puzzle #1

### ***Discussion Board Posting***

Throughout the exercise, students are required to submit postings on a discussion board within a common online learning management system (i.e., Moodle). Students are instructed to post comments about intrinsic and extrinsic motivation and post relevant feedback to other student's postings. Comments like "good point" or "I agree" are discouraged as they contribute little, if anything, to a progressive threaded discussion activity. We have included some of our students' postings and potential questions in Table 1. These discussion board postings are an important component in teaching the motivational concepts. We encourage instructors to be active participants in the discussion board conversations, as instructors can provide probing questions to lead the discussion on motivations. The discussion helps students understand the differences between intrinsic and extrinsic motivations and helps them to relate the material to practical applications in their profession. For example, future recreational programmers could use this information when organizing a sporting event to appeal to participants that are either/or intrinsically and extrinsically motivated. Instructors could ask students to identify and post possible rewards for both types of motivations.

#### ***Activity Explanation:***

- Step 1 (Intrinsic Motivation):
  - > Instruct/email/post activity link online for students to complete the puzzle (e.g., puzzle #1) one time including a specific date and time to complete the task (i.e., Wednesday at Noon).
    - Website = <http://fizzlebot.com/cdt2.php>
  - > Students go to web site and attempt to complete task on Click-Drag-Type puzzle
  - > Discussion Board Post:
    - Ask students to post the following to a discussion board:
      - Time needed to complete the puzzle in the activity (Only post first attempt)
      - Discussion Board Post: Reflection on their motivation to complete the task even though they did not have directions
- Step 2 (Extrinsic Motivation):
  - > Once the deadline for Step 1 has passed, instruct/email/post activity link online again with the external incentive (i.e., extra credit points) including a specific date and time to complete the task (i.e., Thursday at Noon)
  - > For Step 2, include instructions on how to complete the puzzle for those students that could not figure out the puzzle on the initial attempt (i.e., Step 1)
    - Simple instructions for the puzzle (Jay, 2006):
      - The "recycle" icon is when you mess up the key and need a new one.
      - Drag the key into the box which will open.

TABLE 1: Examples of Discussion Board Comments from PRTM Students Who Participated in the Click Drag Type Online Activity

Category	Student Response Examples
Intrinsic	<p>I really liked this puzzle and the fact that it had no instructions seemed to make it more fun for me. This was because it required me to think outside the box and figure out what to do. Now, while I like this style of problem solving for some things, for other things like school work, it hinders me. In all this was a great game that I knew I had time to work on and could just easily sit back and do it with no time constraints.</p> <p>The puzzle took me nine minutes and fifty seconds to solve. Completing a task without directions was a serious blow to motivation. I was at a loss with the thousands of endless click-drag-type possibilities and became impatient with my prospects of solving the puzzle.</p>
Extrinsic	<p>Knowing that there was extra credit on the line, I definitely wanted to finish it quickly. Even though I knew how to finish the puzzle at this point, I still read the instructions provided in the email because I wanted to make sure I did everything I could to ensure I finished it quickly.</p> <p>This time the puzzle only took me 44 seconds since I perfected it the first go round. I tried to be really fast and accurate since I knew that there were extra points involved... because I wanted to win! haha</p>
Ethical & Cheating	<p>But since we didn't have directions I soon decided to take advantage of my rule-free situation to Google the solution for the first part of the puzzle with the key... I found myself significantly more motivated after the first part of the solution was googled into my world and a basic understanding of the situation was found.</p> <p>My personal best time was 3 seconds. I figured out that the code didn't change, and I could bypass everything (not complete the puzzle) by just entering the numbers in the box.</p>
Instructor Probing Question	<p>Motivation: With a better understanding that some students were motivated by intrinsic and extrinsic motivators, how can you design a program to include both?</p> <p>Ethical: Were there ethical values that kept you from cheating? Did you think googling the answer was okay, because students were not told they could not search for directions?</p>

- Shave down the key so that it lines up to either side. This will open the box below.
  - Drag the sliders on the outside edges so the transparent box forms over the “empty” box to get each number.
  - Type in the numbers from left to right in the white area, then click the green arrow.
- Instruct students that they may complete the puzzle as many times as they wish and that the student with the lowest score will receive a small amount of extra credit
  - Discussion Board Post:
    - > Ask students to post the following to a discussion board:
      - Their fastest time at completing the puzzle
      - Post a reflection of completing a task with an extrinsic motivator (i.e., reward) and how it affected on their motivation
  - Additional Step, if desired (Ethical Issues & External Motivation):
    - > Students can post to discussion board their thoughts on any ethical issues that can arise from external motivation and reward systems along with the use of technology to complete a task (i.e., using an online search engine to find the instructions).

### **Limitations of Online Activities**

One limitation of distance education is honesty, integrity, and verification. This activity provides a rich environment for potential discussion board conversations beyond motivational theories including cheating, “No Rules Situation,” directions, and communication. Consequently, the directions are given in a certain order to minimize cheating, as students are not aware until the end that there will be extra credit for completing the activity. As regulated by the postings on the discussion board, instructors can easily determine how well students are doing prior to the inclusion of the extrinsic reward by comparing the initial post (i.e., Step 1) and the post associated with the extrinsic reward (i.e., Step 2). In an online world it is difficult to control for cheating, but this exercise can help students understand how external motivators can influence cheating behaviours. For example, instructors can guide the discussion board postings by asking students about the ethical issues with searching for answers on the Internet (i.e., googling for solutions).

Note: To use the in-class motivational activity previously published in *Schole*, see *How Can a Paper Airplane Show Me the Difference between Intrinsic Motivation and Extrinsic Motivation? A Classroom Activity* (Clayton, 2001).

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