**Dogs, Pigeons, and Texts**

**Subject area**: Social Sciences, Introduction to Psychology

**Grade level/band:** 11–12

**INSTRUCTOR PROCEDURES**

1. **Task overview**:

This task incorporates the practice of text messaging – something that students use almost constantly – to get students thinking about the practical utility of empirical research. They start by reading three studies from Roger Hock’s *Forty Studies That Changed Psychology*. Next, they describe classical and operant conditioning and design an experiment that will test their hypothesis about either operant conditioning or classical conditioning as a cause of text messaging behavior. Students will record their experiment design in a 2- to 3-page paper. Thus, within the context of this assignment they will be reviewing operant and classical conditioning as well as experimental and correlational research designs. Because this assignment addresses both learning theory and research design, it can be assigned either during the chapter on learning or during the chapter on research.

It is advisable to assign this task after students have become familiar with all of the concepts involved: operant conditioning, classical conditioning, experimental designs, and correlational designs.

1. **Prior knowledge required:**

To successfully complete this task, students should be able to:

* Read about a classic research study on learning theory and apply the concepts to their own example.
* Describe both experimental and correlational research designs.
* Design a hypothetical experiment to test a given hypothesis.
* APA citations.
1. **Common Core State Standards aligned to this task:**

[CCSS.ELA-Literacy.RH.11-12.2](http://www.corestandards.org/ELA-Literacy/RH/11-12/2/) Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

[CCSS.ELA-Literacy.RH.11-12.6](http://www.corestandards.org/ELA-Literacy/RH/11-12/6/) Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence.

[CCSS.ELA-Literacy.W.11-12.4](http://www.corestandards.org/ELA-Literacy/W/11-12/4/) Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

[CCSS.ELA-Literacy.W.11-12.5](http://www.corestandards.org/ELA-Literacy/W/11-12/5/) Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

[CCSS.ELA-Literacy.W.11-12.6](http://www.corestandards.org/ELA-Literacy/W/11-12/6/) Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

[CCSS.ELA-Literacy.SL.11-12.1](http://www.corestandards.org/ELA-Literacy/SL/11-12/1/) Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

[CCSS.ELA-Literacy.L.11-12.6](http://www.corestandards.org/ELA-Literacy/L/11-12/6/) Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

[CCSS.Math.Content.HSS.ID.C.9](http://www.corestandards.org/Math/Content/HSS/ID/C/9/) Distinguish between correlation and causation.

1. **Time requirements**:

Students should be able to complete this assignment in one to two weeks. This assignment can be completed mostly out of class. However, you may choose to set aside class time for a variety of purposes, such as answering specific questions about the readings or about students’ research designs.

1. **Instructor materials to use during administration**:

Provide students with access to the text *Forty Studies That Changed Psychology* by Roger R. Hock, 7th edition, 2012: Pearson or a previous edition. Alternatively, provide handouts of the three studies: “It’s Not Just about Salivating Dogs,” “Emotional Little Albert,” and “Knock Wood.”

To help students better grasp the difference between classical and operant conditioning, a number of videos can be found online, particularly at www.youtube.com.

* For example, a brief clip from *The Big Bang Theory* depicts one character, Sheldon, shaping another’s behavior via operant conditioning:

http://youtu.be/Mt4N9GSBoMI (running time 4:23).

* In the following video, Dr. Philip Zimbardo describes Pavlov’s original experiments and includes original footage of Pavlov’s dogs:

http://youtu.be/hhqumfpxuzI (running time 3:54).

* Other videos can help students better differentiate between correlational and experimental research, such as this humorous video from *The Psych Files* (www.thepsychfiles.com) video podcasts:

http://youtu.be/UNonyq1yhiE (running time 2:56).

The 6th edition of the *Publication Manual of the American Psychological Association* or Purdue’s Online Writing Lab (OWL; owl.english.purdue.edu/owl/section/2/10/) are useful resources so that you can model appropriate citations and references for your students*.*

If you choose to have students collaborate electronically, systems like Blackboard (requires university license), Google docs (docs.google.com), or Dropbox (www.dropbox.com) may be helpful.

1. **Instructor procedures during administration:**

To implement this task, you may choose to:

* Receive your own text message during lecture and use that interruption as an opportunity to introduce the assignment.
* To help students better grasp the difference between classical and operant conditioning, you may choose to incorporate some fun video clips into your lecture (see Materials section below for examples).
* Specify stages at which students should check in with you so that you can monitor their progress.
* Provide students with a checklist that breaks down this assignment into smaller steps, with deadlines for each.
* As a means to support students who may need more assistance with these concepts, create a debate within the class, during which one student (or group) argues for operant conditioning, and another student (or group) argues for classical conditioning. Then you can introduce the assignment. Or, you may choose to have students debate after they have written their papers. This might be an opportune time to point out the many forms of learning – beyond just operant conditioning – that shape text messaging.
* Have students present their research designs to the class after all papers have been submitted.
* Provide extra points for students who take a rough draft of their paper to your university’s writing center for a tutorial.
* If you wish to use this assignment as a writing-intensive opportunity, then it might be appropriate to extend the time requirement to allow for multiple drafts. Also, students may engage in a peer-review process of their own, during which they read another’s paper and provide feedback. Finally, you may choose to use online document sharing mechanisms, such as Blackboard, Google docs, or Dropbox, to allow students to more easily access and review each other’s papers.
* Encourage students to run their paper through an online plagiarism checker, such as the one at www.dustball.com/cs/plagiarism.checker/, to help them better learn the difference between paraphrasing and plagiarizing.
1. **Student support:**

The following suggestions are examples of scaffolding that can be used to meet the diverse student needs within the classroom.

* Provide class time for research on students’ topics.
* Provide definitions of new vocabulary words ahead of time.
* For the final product, all learners will benefit from peer assistance while brainstorming their topics, as well as a peer- or teacher-edit of their papers before final submission.
* Some students will have good research skills, but some will need guidance in the determination of appropriate sources and where to look for them. It is important to spend class time in review of what constitutes an appropriate source in advance of students’ independent work time.
1. **Extensions or variations:**
* Students could present the results of their research to the class via an oral or multi-media presentation.
* If there is a particularly interesting discussion, a panel could be organized where students present and critique their research ideas.
1. **Scoring and assessment considerations:**

EPIC developed the *College and Career Ready (CCR) Task Bank Scoring Rubric* to accompany this task. If your school or department uses a standardized rubric that would fit the content and requirements of this task, you may choose to use your existing rubric. The following notes and suggestions are meant to clarify the intent of the rubric and include considerations for the assessment of student work.

* When assigning the task, provide students with the rubric that will be used to score their final product and discuss it as a class.
* Unlike some rubrics, the *CCR Task Bank Rubric* does not predetermine “point values” for the scoring criteria. The rubric thus allows for flexibility with different instructors’ scoring systems and individual determination of the “weight” of each criterion.
* Student work that scores at the *Accomplished* level is considered to be entry-level college work.
* The *Exceeds* category on the rubric provides an example of how a student can go above and beyond the *Accomplished* level. These examples are intended to be only ONE way a work product can exceed expectations, thus allowing room for your professional judgment.
* If needed, consider including task-specific criteria as an additional scoring category to the rubric or providing a checklist of requirements for the task.