Assignment 4
Abridged Methodology

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Methods of Inquiry

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Sample Section

This research study will further the knowledge base already existing on learner self-efficacy in Web-based training. Existing research has already investigated how confidence in the instructional technology affects performance and how learners adjust their learning methods in Web-based instruction as part of education programs or curriculums (Joo, Y., Bong, M., & Choi, H., 2000; Whipp & Chiarelli, 2004). This study expands the subject of learner self-efficacy by investigating how Web-based training environments (instructional settings that do not include instructors, academic peers, or other instructional support) affect learner content self-efficacy. Employees from the researcher's organization will be recruited to participate in the research study through a verbal invitation from their direct manager. The target population is approximately 300 hospitality contact center employees and the researcher aims to have a convenience sample population of 50 employees. These employees were chosen because they have had minimal to no experience with Web-based training. Strives will be taken to ensure a representative sample is recruited to rule out external validity influences.

Data Collection Instruments

Participant Demographic Information

Upon participant acceptance to participate in the study, each will complete a demographic information form to provide his or her age, ethnicity, gender, level of education completed, whether he or she has ever completed a Web-based training, and years experience using the Internet.

Self-Efficacy Assessment

Self-efficacy has been the focus of much existing research. The instrument of choice has been a self-efficacy questionnaire. The current research study will also use a self-efficacy questionnaire as a means of preserving the line of inquiry. The questionnaire will be developed following Bandura's (2006) guidelines for self-efficacy scales (Figure 1). Participants will respond using a 0-100 point scale where 0 represents no confidence and 100 represents full confidence. Higher scores on the assessment are an indication that that participant has high self-efficacy.

A number of items are described below that can make it difficult to learn in a Web-based training situation. Please rate in each of the blanks on the column how certain you are that you can learn as a student in a Web-based training situation.

Rate your degree of confidence by recording a number from 0 to 100 using the scale given below:

| 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

Cannot   Moderately   Highly certain
do at all   can do   can do

Confidence
(0-100)

Self-Regulated Learning
Concentrate while using a computer
Balance distractions when learning independently   _____

_____

Technology Use
Read text on a computer screen

_____

Content
Develop measurable performance objectives   _____

Figure 1. Illustrative excerpt of the self-efficacy measurement instrument.

Procedure

The researcher, through employee managers, will recruit employees to participate in this research study. At the time of the request, potential participants will be informed that their participation is voluntary; they may leave the study at any time without adverse affects; they are encouraged to answer all questions, although not required to; and that all responses will be kept confidential between themselves and the researcher. The researcher will gain each participant's permission before initiating any data collection.

Upon permission receipt, the participant will receive the demographic information form. The participant will complete this form and return it directly to the researcher. The first of two self-efficacy assessments will be administered via a pencil and paper form, on an individual basis. The participants will be asked to assess their self-efficacy. After completing the first assessment, the participants will complete a Web-based training course that is related to the content items provided in the first assessment. Shortly following the completion of the Web-based training, the participants will complete a second self-efficacy assessment. This assessment will be similar to the first assessment, except that it will be written to measure the participants' self-efficacy after having completed the Web-based training.

To match the first assessment with the second assessment a randomly generated user code will be sent to the participant at the time the participant's permission is received. This code will only be known to the participant and will be used as a means of connecting the demographic form, two assessments, and proof that the Web-based training was actually completed. All participants will be instructed to not put any self-identifying information on any research item.

Data Analysis

Means and standard deviations for each self-efficacy item will be reported. Specific item analysis is necessary to measure the various self-efficacy contexts (i.e., self-regulated learning, content, and technology) that are present for learners in Web-based training environments. The means reported for the pretest will help the researcher answer the first research question, do learners possess content self-efficacy, or confidence in themselves to perform tasks, in WBT environments. Dependent t-tests will be conducted to compare the pretest and posttest self-efficacy means and help answer the second research question, can WBT, as an instructional technology, foster content self-efficacy in learners who seem to be struggling, and how the participants' self-efficacy has been influenced (fostered) by the Web-based training. An additional t-test will be conducted to identify is there was a significant mean increase from pretest to posttest for those learners identified as struggling learners.

Design

This research investigation follows the design of the one-group pretest-posttest treatment. The first self-efficacy assessment acts as a pretest to measure the participant's self-efficacy (dependent variable [DV]) for completing Web-based training. The administration of the Web-based training (independent variable [IV]) acts as the experimental treatment. The second self-efficacy assessment acts as the posttest to measure the participant's self-efficacy (DV) after the experimental treatment was administered.

The one-group pretest-posttest design is appropriate for this research study because the self-efficacy of a learner in a Web-based training environment is individualistic. A design that accommodates this individuality is necessary to identify how the content self-efficacy of a learner in a Web-based training environment is influenced by the treatment.

This type of research design is vulnerable to internal validity threats if the treatment is not administered carefully. To the extent possible, these threats will be minimized through a rapid research process as time between research events increases the opportunity for an internal validity threat to occur. The researcher is cognizant that the participants may be influenced by other events other than the experimental treatment between pretest and posttest; may mature in their comfort using technology; may be influenced by the pretest in itself; may complete the pretest and posttests in non-prime environments; and may elect to leave the study at any time. As the pretest and posttest measure an individual's own self-efficacy, rather than being a problem-solving assessment, the researcher does not expect statistical regression to be a validity threat.

References

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