

Homework Assignment #3 (75 points)
Evaluating Training Programs

Due: March 29, Tuesday, 11:59pm

You are hired as an I/O consultant for *Hummingbird Inc.*, an Indiana manufacturing company specialized in producing precision instrument and equipment. Your task is (1) to examine the relationship between job knowledge and job performance for *Hummingbird* employees and (2) to evaluate a recent training program implemented in the company.

Hummingbird Inc. is an equal opportunity employer. Sixty-two percent of its 1,200 employees are male and 87% are White. Fifty-four percent of employees are machine operators, 16% are engineers, 9% are managers, 19% are clerical staff, and the rest are janitors. On average, the employees have 7.35 years of experience at the current job. Nineteen percent of the employees have master's degrees or higher, 21% have college or associate's degrees, and the rest have high school or vocational-technical school degrees.

The company recently implemented a training program targeting job knowledge on machine operation. A hundred machine operators participated in the training program. A job knowledge test was given to these employees at the end of the training program. The scores on the test were correlated with the employees' job performance measured a month later. The observed correlation was 0.25. The CEO of *Hummingbird* concluded that the training program was effective because it helped increase job knowledge, which, in turn, increased employees' job performance.

Answer the following questions:

- 1. What are the dependent variable, independent variable, and mediator variable in this case? (6 pt.)**

- 2. How would you interpret the observed correlation between job knowledge and job performance? Explain what it means in your own words. (4 pt.)**

- 3. Is there a possible moderator for the relationship between the job knowledge test score and job performance for *Hummingbird* employees? Name one variable and explain why you think it might be a moderator in this case. (5 pt.)**

- 4. How many conditions for causation was/were met in this case, and what are they? Explain your answer and why the other condition(s) for causation was/were not met. (5 pt.)**

- 5. Do you agree with the CEO's assessment that the training program was effective? If so, why? If not, why not? Explain your answer. (5 pt.)**

6. If you were to design a program evaluation study to determine whether the training program caused an increase in job knowledge and an increase in subsequent job performance, what would you do? Be specific. At a minimum, provide details in your answer about how you would select the participants for the training program, how you would design and conduct the study, and how you would interpret the results from the study to evaluate the training program. (25 pt.)

7. If you were to redesign a training program (programs) for *Hummingbird* employees, what would you do to maximize the learning and transfer outcomes of training? This is an open-ended question. You can come up with any creative solutions. In your answer, consider the *entire* process of training and various factors associated with training effectiveness. Be specific about what your learning and transfer criteria are and how you would measure them. Add citations to provide evidence for your proposed solutions whenever appropriate. You will be evaluated by the comprehensiveness of your answer, the level of critical thinking, and the extent to which your answer is grounded in evidence. (25 pt.)

Important Note on Academic Integrity

You are to complete your own work for this assignment. You are not allowed to look at other students' homework or verbally ask for their answers. You are not to share your answers with anyone else. The grading TA will pay close attention to answers that are too similar. Students who submit nearly identical answers will receive zero points and be reported to Dean of Students for academic dishonesty. You can ask your TA for clarifications and directions to relevant information but do not ask for correct answers.

Format

The paper should be typed and submitted in either a Word or a PDF format, double-spaced with 1-inch margins. Use fonts no smaller than Times New Roman 11 or Arial 10. Your answers will be evaluated by its clarity, cohesiveness and strength of arguments, and the level of critical thinking demonstrated. When you provide supporting evidence, both in-text citations and a reference list at the end are required. Use APA style to cite your references (the Purdue Online Writing Lab is a great resource about APA style: <https://owl.english.purdue.edu/owl/resource/560/01/>).

Submission

The assignment is due by Tuesday, March 29, 11:59pm. You are required to submit an electronic copy using the Blackboard submission link. You can submit multiple times. Only the last submission will be graded. Assignments will be accepted up to 5 days late, with 20% points loss for each day late unless an alternative due date is approved by the instructor prior to the due date. Papers turned in anytime on March 30 will be considered one day late. Assignments will be accepted up until 11:59pm on the fifth calendar day after the due date, which is Sunday, April 3.