I need 135 words of response to each post ---- select one peer whose study idea you find particularly intriguing and engage in a back and forth discussion with that peer about the discussion topics. Make sure to have at least two substantive posts to that classmate. Here, our goal is to dive a bit deeper into a discussion with an individual peer. Feel free to post additional responses to the discussion thread that share what you both learned from your exchange.

Forum 1: A quasi-experimental design is one that looks something like an experimental design.  Nonequivalent groups design lack random assignment and the potential nonequivalence between the groups complicates statistical analysis of the design Trochim, W.M.K. (2020).  The compelling factor about these designs is that they are more frequently implemented than randomized designs.

Independent Variable: Stretching Exercises

Dependent Variable:  Impact on workers who performed daily stretching

A vital element of the experimental design is the researcher taking a great degree of control over the environment (Malec & Newman, 2013, 5.2).  As well as manipulating variables, making sure that other aspects of the environment are the same for all participants.  Use of the same room for the groups, around the same time of day, same lighting, temperature, guided by the same experimenter, assures that the other influences were the same for each group.

Experiment: to test the differences in daily performance after regular morning stretch routines.

Group 1: Meets for 30 minutes and sits in a room, before starting the workday

Group 2: Meets for 30 minutes and does stretching exercises, before starting the workday.

Does the stretching positively impact/counteract the daily stressors of sitting at a desk, becoming stressed, experiencing neck/back pain?

Taking this study to an experiment would entail detailed planning for instrumentation of aligning a group of participants from the same or similar office work setting.  Assigning mediators for arranging the logistics and bringing about the implementation of weeks long experiment, would be next.  Then, composing the instruments with which to document the daily activities of both groups, to determine if there were positive effects from the morning stretch routines.  Finally, setting all of these elements into motion to create an experiment would culminate the actions in a synchronous activity.

References

Malec, T & Newman, M. (2013). Research methods: Building a knowledge base. San Diego CA: Bridgepoint Education, Inc. ISBN-13:9781621785743, ISBN-10:1621785742

Trochim, W.M.K. (2020). Quasi-Experimental Design. Research Methods Knowledge Base. Retrieved from Conjointly.com

Forum 2: This discussion I chose demonstrates the nonequivalent design with research that included the independent variable (the cause) eating fruits and vegetables and the dependent variable (the effect) on losing weight. For example, we selected a group of 30 12-year-old and divided them into two groups (experimental and control) of 15 children each to participate in a study to see if eating fruits and vegetables (FV) contributed to them losing weight. The requirements for this design are pretest and posttest observations for both groups, allowing researchers to compare whether the study was effective or not (consuming or not consuming FV influences the children’s weight loss), and only one group of 15 consumed FV as the intervention (Malec & Newman, 2013).

What would be the advantages of using a true experimental design over a quasi-experimental design?

The advantages of a true experimental design are that it can be statistically analyzed leaving little room for arguments about results, easier to replicate and validate results, and works primarily with numerical data, and easier to manipulate one variable. The true experiment also provides greater internal validity, confounding variables, maximum control over group selection, and random assignments, According to Malec & Newman (2013), the best types of designs are those that offer control over confounding variables and include random assignment of the participants.

In what situations might a quasi-experimental design be preferred over a true experimental design?

According to Malec & Newman (2013), quasi-experimental designs are commonly used when random assignment is not practical or possible. For example, when the nonequivalent-group, pretest-posttest design, and a difference between the two groups are initially assessed in a pretest exists or for comparison or a time-series designs in which several assessments or measurements are obtained from the treatment and control groups.  For example, measuring the weight and BMIs over a period of six months when the children were consuming an FV diet.

Malec, T. & Newman, M. (2013). *Research methods: Building a knowledge base*. San Diego, CA: Bridgepoint Education, Inc.