

Re: Statistical Analyses of Non-Static Group Question

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- *From:* Doug Morse <morse@xxxxxxxx>
 - *Date:* Fri, 10 Aug 2007 01:41:10 +0000 (UTC)
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Hi,

You've done a great job describing what's distinctive and "unusual" with your design. To really help, though, I (or anyone really) will also need to know more about what's "typical" about your design.

So, if you can say bit more about:

- (a) who your participants are, how you are selecting them (or how they are self-selecting), and how they are being assigned to various treatment conditions (if there are any),
- (b) what the participants are doing (i.e., what's the task or tasks),
- (c) what materials or stimuli are being used and, in particular, how the materials differ due to any treatment conditions or manipulations, and
- (d) how you are assessing and testing the participants and how often (i.e., what's the measure and its frequency)

that would be great. These four things — participants, tasks, materials, and measures — are essential to understand in order to provide sound advice.

No need to go overboard, though. I can ask follow-up questions for clarification or elaboration, if needed. For now, if you can just provide the basics of what's going on along these four dimensions, that's a great start.

Cheers,
Doug

On Thu, 09 Aug 2007 15:52:21 -0700, gwcallahan1@xxxxxxxxxxxxx <gwcallahan1@xxxxxxxxxxxxx> wrote:

I don't have a background in statistics so perhaps someone can lend some guidance with respect to the issue that I present here or tell me where I can go to find guidance.

The goal is to determine how well a group of participants for a given

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program is performing over a given period of time. The number of participants is not static. The program has a lifecycle where the number of participants starts out small, builds to a maximum then declines through attrition until the program is retired. Participants tend to participate with greater frequency when first added to the program then taper off with time. A very small percentage of participants are extremely active from the time they are added until they leave the program and to a point where they artificially raise the norm.

The question then is how does one compare group performance from one sample to the next if the group dynamic is changing?

How does one account for the influx of new participants and the effect they have on the group?

How does one correct for the overly active participants?

Is it valid to look at only those participants who appear in subsequent sample periods (i.e. exclude additions and removals)?

Statistics is a broad subject. What form of analysis does this problem represent? What texts (books) should I study to gain a better understanding of the problem?

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