

Using Surveys To Conduct Learning Outcomes Assessment: New Software Tools On Campus

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Why do a survey?

You may find yourself thinking: “I need to know what the students think about this. . .” -- but you don’t, really, need to know anything if you can’t think of examples of specific actions that you could take, given what you might learn. What kind of things do you do, and in what ways could you change the way you do those things? Such simple questions are what prompt the most useful research.

What can you ask?

It’s one thing to know whether something makes our students happy or unhappy, satisfied or dissatisfied, but it’s another to find out whether that something is accomplishing what you intend for it to accomplish. Are the students learning what you want them to learn, apart from their feelings about that process? If, for example, students were extremely satisfied but learning next to nothing, you might have to take a very different action than if they’re hopelessly dissatisfied about the way they’re learning a lot.

After you define what you want students to know, to do, and to value as a result of your program, you have to find out whether this learning is taking place. Thus, we need to focus on learning outcomes -- knowledge, skills, behavior, values -- before -- or in concert with -- satisfaction ratings. Having a complete picture, including satisfaction ratings, is important when making policy decisions, but no decision that affects what students are learning should be limited to satisfaction or subjective experience data alone.

You can ask student what they do. You can query them about their values. You can quiz them on their knowledge. You can ask them how they feel about what happens to them during the learning process. And you can ask them to describe themselves.

The way you ask a question matters. You need to make sure that students are able to give you their answers and that you understand what they mean. Using open-ended free response questions is important sometimes, but it’s awkward for data processing. If you can ask closed questions (meaning questions that have fixed responses that students can select), a new technology that I’ve implemented in my office can aid in your data collection process.

How can you get help in designing a survey tool?

I'm happy to help anyone who wants to collect data this way, so that they can reconsider how they do what they do to enrich students' learning experiences. Please give me as much notice as possible, given when you would need to know answers to your questions, and we can work out a schedule that will complete the projects in time for the data to be useful.

Limits, however, have to be placed on what I can do for someone who approaches me at the last minute. If it's important for you to learn more about students' learning experiences on campus and what they think about how you do what you're doing, you should make collecting such data a priority and not the victim of a last minute, slap-dash effort.

When we meet, we'll chat about the following things:

- What it is that you do.
- What you could change, given what you learn from this kind of research.
- What learning outcomes, if any, are involved in what you do.
- When you could best use information about these issues in your departmental decision-making process.
- What kind of questions you would like to ask.
- How you would like to ask them.
- What kind of analyses would be helpful following the data collection.
- What your process will be for using the data you collect.
- How you will determine whether the survey has succeeded.

It isn't that I expect most offices will have answers to all of these questions, but these are issues that we have to face before we proceed with any surveying.

How do we design a survey instrument?

Every step of this process has to proceed under my supervision. Too many aspects of this process can stray off-track, and as a consequence, countless hours are spent controlling damage when fifteen minutes would have solved the problem as it occurred. I'll repeat: This process must proceed entirely under my supervision.

I have software that can scan survey instruments that have been typed into Microsoft Word, with Ariel font, size 10 or 12. Your survey will look similar to a Scantron survey, with bubbles to be filled in by respondents; only closed questions can be asked, and any handwritten open-ended responses provided by the respondents will have to be typed in later by hand (which is very time-consuming). Beside each option of every question, the bubbles you will put on the survey will capital letter O's (still in the Ariel font). You'll need to put space to the left and right of each bubble and put space above and below each bank of bubbles. I will provide you with examples of instruments that are scannable, and your responsibility will be to type up your questions this way.

When we've determined what questions you'll be asking and how you'll ask them, we will next do something called "piloting." We'll find people who are in the population you plan to survey -- maybe a dozen of them -- and we'll ask them individually to fill out a copy of the survey for us, in person. We'll need to make sure these pilot subjects have enough time to concentrate on it, and we'll let them know that their answers will be kept confidential (even though we'll be looking them over to best understand what they meant when they completed the survey). Before we set them loose on the instruments, we'll tell them that we'll be asking them a few questions about the survey, once they're through. We'll time these pilot respondents (or have them time themselves). And then, when they're done, we'll emphasize that we aren't interested in knowing their particular answers as individuals to the questions. We are interested instead in their experience in filling out the survey. We'll ask them:

- Was there anything on the survey that you didn't understand (questions that weren't clear, terms or phrases that didn't make sense)? What?
- Was there anything on the survey that you could figure out, but you think other people might not be able to figure out? What? [if they don't volunteer anything, prompt them with a couple possibilities]
- Were there any questions that didn't provide you with the best option that you would have chosen [look at what they wrote in as 'other']? Which ones?
- Were there any questions we should have asked, but we didn't? What were they?
- What kind of concerns do you think students would have filling out this survey?

We'll try to keep our questions open-ended (not leading). The pilot subjects can keep the survey instrument and destroy it themselves if that makes them feel more comfortable. We will take notes on what they say.

Paying attention to the respondents' feedback during piloting, we will revise the survey to make sure it will meet our objectives.

What do we need to do when administering the survey?

Once a final draft of the survey has been printed out, and I've "cleared" it for scanning, the survey can be photocopied onto plain white paper (double-sided is okay). It is ideal if all the blank surveys are created at the same time, on the same copier, because all copiers move the image at least a little, and we will need all the surveys to be shifted the same amount in the same direction. At least a dozen of these blank surveys need to be given to me for "training" the survey software to read data off the forms.

As you collect the completed instruments, check them for how well the students bubbled their answers. The program doesn't like checks or X's -- only tidy bubbles. You may need to "re-bubble" some students' answers, if the respondents didn't bubble well enough for the program to pick up their responses. Also, make sure food particles or other debris aren't clinging to the completed survey instruments. These surveys are going to pass through the feeding tray of a photocopier here on campus, and if it appears that any pages

of these instruments would jam or cause a problem, you might have to re-bubble all the students' answers onto a blank form, to guarantee that these responses are scanned.

The scanning process will create a dataset that will have each survey instrument's responses appearing as a single row of data. To be able to figure out which completed survey instrument is represented in which row of data, we'll need to number each page of the survey with a numbered stamper, which assigns each individual respondent's survey a unique serial number. If the survey has multiple pages, you'll need to stamp all pages and then cut the staples off the corner of the instrument, so that they will feed into the photocopier.

In groups of forty sheets, we'll scan the data into the program, and from there, I'll use a statistical software package (SPSS) to create a dataset that I can use to generate reports and perform analyses for you.

What kind of reports will you get?

Reports can take many forms, including lists of tables showing how many students said what. I can provide these reports to you in a variety of file-types (Excel, Word, HTML, etc.). But the data shouldn't be used only to summarize what respondents said. I can perform statistical analyses to determine:

- whether we can conclude that students in different groups responded the same way or differently
- what students might have meant when they indicated certain responses
- which responses are statistically related to other responses (what seems to influence what)
- whether it might be more useful to group students according to their responses to some of the questions instead of just grouping them according to their demographics

...and many other analyses, too. How you think you can use the data will determine the math we use to formulate answers to the questions that prompted this research.