Retrospective (Post/Pre) Surveys

OFFICE OF ASSESSMENT & APR

Workshop Outline

What is a "retrospective" survey?

What isn't it?

What does it look like?

When is it useful?

Creating one

Analyzing & reporting the results

What is a "retrospective" survey?

Also known as: **post/pre** survey, **post-then-pre** survey, **post-then** survey, **after retrospective** survey

Survey that asks participants/students to **reflect on growth over time, but at once**

- participants provide a rating for where they feel their skill-level, belief, knowledge, etc. was **prior to beginning AND after completing** the program, class, project, etc. **AT THE SAME MOMENT IN TIME**

- gathers the students/participants **PERCEIVED** change, impact, or growth

- provides anonymously paired data for both pre and post (don't have to track IDs or other identifiers from one survey to the next in order to pair them for analysis)

What isn't it?

Not a "true" **skill-based** assessment

Not the same as or **equal to a pre/post test**

Not a **one-size-fits-all solution** to data gathering

What does it look like?

Below is an example of the retrospective pre-post design excerpted from the evaluation of a class on American Sign Language (ASL) interpreting in health care settings. Students are **self-assessing their knowledge** based on statements reflecting the learning objectives.

For each of the topics listed below, please check the box under the number that indicates your level of knowledge both **before** and **after** completing the course:

1 = None - have no knowledge of the content
2 = Low - know very little about the content
3 = Moderate - have basic knowledge; there is more to learn
4 = High - consider myself very knowledgeable

How do you rate your knowledge about the following topics:	Knowledge BEFORE The Class				Knowledge AFTER The Class			
	1	2	3	4	1	2	3	4
ANATOMY OF AN OFFICE VISIT								
Q1. The names and roles of professionals in the health care system.								
Q2. The different types of health care encounters where patients and health care professionals meet.								
Q3. Various health care settings and their utilization.								

Another Example

4. **Please read the following statements and think about your level understanding before the workshop, and how it changed after the workshop. Please circle the number that best represents your knowledge level for the indicated areas, with '1' representing a low knowledge level, and a '5' representing a high knowledge level.**

1= Low 5 = High   **1= Low 5 = High**

BEFORE THE WORKSHOP					SELF EVALUATION OF THE KNOWLEDGE AND ABILITIES RELATED WITH:	AFTER THE WORKSHOP				
1	2	3	4	5	A) Causes of disease in plants	1	2	3	4	5
1	2	3	4	5	B) Sanitation practices to reduce the risk of introducing and spreading diseases in a nursery	1	2	3	4	5
1	2	3	4	5	C) A systems approach in a nursery	1	2	3	4	5
1	2	3	4	5	D) How to prevent the introduction of disease in your plants	1	2	3	4	5
1	2	3	4	5	E) The critical control points to prevent and control	1	2	3	4	5

Deciding when to use it

Best to use:

- when the students'/participants' perceived impact **on themselves** matters!
  ◦ Using a traditional pre-and-then-post approach to measure student learning can suffer when students over or underestimate their knowledge/ability on the pre-test because we often "don't know what we don't know."

- when understanding how students and participants perceive **the program, class, project, etc.**
  ◦ **Instead of asking** "How useful was this program/project to your future studies?" or "How beneficial do you think this course will be?", students/participants can rate their perceived skill-level improvement, which can then be used to make arguments about the program, class, project, etc. usefulness and benefit.

- when **"pre" data wasn't collected** (for whatever reason)
  ◦ Retrospective data will provide otherwise unattainable data

Spoiler Alert! - Limitations

There are haters:

- concern for rigorousness

- concern for bias (students may think they *should* have improved and may respond to reflect that)

- concern about "perceived" change vs. "actual" change

But just tell the haters "bye" - **If the goal is program, process, quality improvement, perception is incredibly useful and insightful!!**

Creating one

1. Start with the **goal** of the data collection – confirm the retrospective survey fits
   ◦ Ask yourself: "Am I interested in the students' skill attainment, or their *perceived* skill attainment and *perceived* growth/impact from this class, project, program, etc.?"

2. Create **questions** – For this type of survey, questions are more like **prompts** and students/participants will rate their comfort, skill, knowledge with each prompt (refer to examples)

3. Develop or choose a **scale** – my preferred scale is:
   ◦ 1 – I do not know what this is, or cannot do this
   ◦ 2 – I am familiar with this, but I would need a great deal of support to do this
   ◦ 3 – I can do this with some/minimal support
   ◦ 4 – I can do this on my own
   ◦ 5 – I can do this, and could help my friend/classmate do this, too.

4. Decide when to **deploy**, **collect** and **analyze** the data – usually at program end

Quick tips/considerations

For many survey-takers, the "retrospective" approach will be **new/unfamiliar** - Help them avoid processing overload and survey frustration by:

1. writing a brief statement at the top of the survey that explains the **purpose** of the evaluation/assessment/study

2. using plain language instructions to explain the student/participant **responsibility** (what you want them to do)

Example: "The **purpose** of this survey is to determine how this workshop has helped participants understand the retrospective survey methodology. In this survey, **please reflect on your skill level before this workshop and now, after completing the workshop.** In the prompts below, rate your skill level for each before attending the workshop and now."

Take the survey

SCAN THE QR CODE OR CLICK ON THE LINK IN CHAT: HTTPS://FORMS.OFFICE.COM/R/YVFTANRQJR

Analyzing & reporting the results

Analyze the results as if they were pre/posttests –

1. Use paired t-test to determine **statistical significance**

2. Summarize results and share average before and after ratings, summarize into thematic groupings if you have them, summarize areas where the program is thriving vs. areas that need attention

Reporting the results – REMEMBER – this **IS NOT** a skill-based assessment
- When reporting results, be sure to lead off results with "Participants **perceived/experienced/noted/reported** changes in X,Y,Z"
- Cannot purport evidence of skill/knowledge changes from pre-program to post-program, can only show evidence of the students'/participants' perceived impact.

References

Example 1 (lots of great information)

Example 2

Simon Fraser University Post/Pre Resources and How-To's

University of Florida Literature Comparing Post/Pre and Pre/Post Surveys

A Case for the Retrospective Pretest

What's the Difference? "Post then Pre" & "Pre then Post"

The Retrospective Pretest: An Imperfect but Useful Tool

Synthesis of Literature Relative to the Retrospective Pretest Design