Method:	Questionnaire Surveys

NERUPI network
Evaluating & Researching University Participation Interventions

Description:

Questionnaire surveys use a structured format and they are applied in a systematic way. They can have targeted questions or they can be more general in their content. Either open or closed question formats can be used. Structured questionnaire surveys designed for quantitative analysis usually have a closed format (e.g. checkbox, multiple choice, rating scale, agreement scales) to aid quantitative analysis (as a general guide, only 10% of the questions on surveys tend to be open-ended).

Application:

Because of their flexibility, questionnaire surveys can be useful to inform all dimensions of the NERUPI Framework.

Type of evidence:

Quantitative and Qualitative. OfS Type 2 evidence if measurement is taken pre- and post- intervention and/or against a counterfactual or comparison group

Strengths:

Questionnaire surveys are helpful when you want to test the strength or scale of something (for example to find out the share of respondents who share an opinion).

Surveys are an efficient way of collecting data from larger numbers of people (which helps with achieving the numbers to evidence impact, or when you want to compare differences). They are adaptable to different contexts (e.g. can be conducted on paper, online, over the phone, and even in-person with structured interview questionnaires). Surveys can often be easy to include in an activity (which helps to boost the response rate which you might otherwise get in follow-up).

Surveys can help to assess the student voice. If you don't need to match responses, then surveys can afford the participants greater anonymity (than interviews for example) which could be important for encouraging honest responses. Using online and mobile surveys means that you can reach people who might otherwise be hard to connect with in person (and they can remain anonymous easily). These also allow you to collect data from multiple sources at once.

Weaknesses:

Questionnaire surveys tend to be limited in the number of questions/issues covered (no more than 13 minutes to complete is probably the maximum, and shorter surveys are better to avoid 'survey fatigue'). Some respondents will probably always choose answers before reading the questions so there will always be a measure of error. Findings from questionnaire data are one-dimensional, meaning they give little insight into the emotions and meaning behind the numbers. Surveys are not the best option if you are looking for narrative evidence.

Not everyone may understand the questions in the same way, and surveys often don't allow for clarification. Running a pilot with the target audience to cognitively test the questions in advance can help check this. Respondents might not always provide honest answers. Often, people respond in a way they think the researchers or providers want to hear. Social desirability bias might also affect the responses. Making sure that respondents know their responses are anonymous and encouraging them to be honest can help.

The responses could be influenced by external factors (e.g. time and place) making them less reliable. As far as possible make sure the survey is administered in the same way each time by setting up a survey protocol.

Surveys are open to confirmation bias because of the way the questions are formulated (because those involved might have a hidden agenda). Involving a range of perspectives in the design of the survey and using a range of direct and indirect questions can help. Avoid asking leading, double-barrelled or ambiguous questions.

Getting a good response rate is important to creating more representative data, so you need to ensure ways of boosting the response (for example by building the survey into the activity rather than an add on). Plus you'll need to check the number of missing answers to ensure there are enough responses to draw conclusions.

Relying on self-report data such as surveys can be problematic. Triangulating surveys with other data sources can mitigate the risk. If you are only able to do a survey then employing appropriate significance

tests on any changes observed and including a margin of error statistic when presenting descriptive data (percentages) can be helpful.

Surveys are not always appropriate for use with some groups, (e.g. very young children) where clarification of questions is not possible.

The response rate to surveys is potentially low (10% as a rule), unless you have a way of accessing the respondents directly (e.g. through teachers).

Mixed methods: Questionnaire surveys combine well with most other methods as quantitative findings can provide an overview and qualitative responses and can indicate unforeseen areas that might indicate further exploration using an alternative approach e.g. interviews.

Indicators: Questionnaire surveys can combine a number of themes, depending on the aims of the intervention or programme, and can be used to collect evidence on all indicators but are best suited to those based on self report (for example to explore participants' perceptions of their imagined futures, self-belief, engagement, acquisition and application of expertise (if used to test knowledge) and social networks).

Expertise: Low-Medium

Requirements: Running questionnaire surveys requires obtaining access to participants to complete the questionnaires. This could require working through gate-keepers in order to boost the response rate.

Surveys are relatively cheap and quick to run. Resources for data entry can be a consideration for large scale surveys (although using online surveys can mitigate this).

Questionnaire formats need to be sufficiently simple to be understood without researcher explanations (and should be cognitively tested for this).

Ethical considerations: The main considerations are:

- Informed consent from participants to have their data analysed for this purpose. This usually involves having an opt in process along with an information sheet with full details of how and why the data will be used. You need to make sure respondents understand the rationale and processes involved, including how their data will be used and procedures for confidentiality and anonymity.
- Right to withdraw. Taking part in surveys is voluntary, and you need a process by which they can withdraw from the research including at a later date [i.e. within a specified time limit of data collection].
- GDPR compliance in relation to privacy and data storage. You should be working to the Guidelines for Data Protection Regulation (including having a Privacy Notice to Research Participants which they can access).
- Avoiding harm. You need to fully consider and mitigate for any possible harm that could arise from participation in the research. This usually involves thinking about the risks (e.g. whether respondents will find discussing some of their experiences upsetting) and how you will deal with any distress that might arise (e.g. signposting to support).
- The issue of incentives. Offering rewards (e.g. a voucher) is contentious and you need to weigh up the benefits and risks. On the positive side rewards can boost the response rate and recognise that students' time is valued. On the negative side, rewards can introduce data bias and students would participate anyway if it was important to them.

If questionnaires are being used as part of a research project, rather than just evaluation, then ethical approval might be needed in some institutions.

Work planning: It's important to allocate time to questionnaire design, because you need to ensure that questions are easy to understand, that there is a rationale for all questions, and r to plan for how all questions will be analysed. Don't include too many questions or questions that are too complicated to answer or analyse.

You should aim to run a small scale pilot of the survey with a small group of respondents in the target audience to check it works – for example, is the purpose and rationale clear? how long does it take to complete? do questions make sense? are questions in a logical order? Don't forget to make sure that the survey is easy to access and works in a number of formats if you are using these (including for mobile devices if online).

The next step is to promote the survey. What's involved will depend on the context and may include promoting the survey via known contracts/trusted sources to increase your response rate. You may need to do some training to ensure those administering the survey do this correctly and set up a survey protocol for them to follow.

Collating the data could be automatic (e.g. online) or could be a discrete stage. Either way you need to clean the data to check whether all responses can be used, remove anomalies and confirm the response rate and decide how you will treat missing data.

Analysis: The type of analyses will depend on the type of questions and needs of the audience for the results. Quantitative data can be analysed in a variety of ways including in visually appealing charts and graphs to highlight key messages. You can also provide findings such as 'as a result of the activity 90% of students agreed they "understand what GCSE subjects I need to take to enable me to study different courses in HE"'. Before analysing the data you will probably have identified an evidence-informed hypothesis which you want to test, and the analysis can inform discuss the evidence in favour and against this hypothesis. Ideally you will have decided in advance who will be accountable for taking any action as a result of the survey findings.

Reporting: Survey data can be reported quantitatively, which is particularly useful for producing reports to stakeholders and interested parties such as managers, funders or regulators as well as reflecting back useful findings to the Praxis Team and other interested parties more closely engaged with the intervention. A report or presentation can be supplemented and illuminated by qualitative findings from the survey or other methods e.g. focus groups.

Useful Link(s): A Survey Research Design Checklist is available at https://blogs.shu.ac.uk/steer/files/2018/09/SRDC.pdf

Questionnaire Surveys: Practice Example

A Uni Connect Collaborative Outreach Programme is using pre- and post- surveys for their 5-week Skills for History programme aimed at increasing understanding of higher education and developing essential skills for study across the humanities. At the activity design stage, the evaluation officer built a bespoke evaluation plan around the project. Question items are aligned to the progression framework and outcomes ensuring that there is a combination of consistently used questions and bespoke (tailored to the project objectives) questions. Completed pre-project surveys were uploaded to an Excel spreadsheet (with names and schools recorded) before being sent back to the delivery staff member for review. At the end of the project, the students completed the post-project survey and their results were compared (pre and post).

Raw data, a pivot table and visual data outputs are sent to the delivery staff member for review and reflection on whether activities are supporting improved learner outcomes in line with the aims and content of the activity. As well as being used in a report on the activity. The partners may set targets for the changes they hope to see in young people, measured through pre- and post- activity surveys. For the Y9 cohort for example, the aim is for increased confidence and motivation to succeed of ≥ 30% for ≥ 70% of students, and increased identification of self as potential HE student for ≥ 60% students.

Ideally, the same students will be picked up in follow-up surveys or focus groups at a later date to explore medium-term outcomes (rather than just immediate-term outcomes collected in the post-programme survey).