

5.4.2 Sampling issues

The most acute problem associated with Internet-based research is that it is not possible to apply any systematic, purposive sampling strategy. What normally happens in such research is that once the instrument (typically but not always a survey) has been constructed and tested, the investigators contact various Internet discussion groups, bulletin boards, and lists, and/or initiate some sort of snowball sampling by emailing potential participants and then hope for a sizeable sample. This is obviously far from being systematic, but before we decide that this lack of control over who will eventually participate in the study should disqualify such projects from the category of scientific inquiry, we should recall that non-probability sampling (and especially convenience sampling) is the most common sampling 'strategy' even in non-web-based research—see Section 5.1.2. So, the main problem does not necessarily concern the unprincipled selection procedures but rather the fact that the actual sample that completes the web-based survey or experiment may be much more heterogeneous than in traditional research, consisting totally of self-selected participants. As a result, even if we have thousands of responses, it may be very difficult to decide how to generalize the findings.

While there are no known solutions to the sampling problem, Birnbaum (2004) mentions two strategies that might offer at least a partial solution.

In the first approach we analyse the research question separately within each substratum of the sample (for example, age, education, gender, and other demographic variables). If the same conclusions are reached in each subgroup, this might lend some external validity to the results. The second approach also involves the comparison of subsamples, but this time the investigators compare the web-based results with the outcomes of a similar, non-web-based survey or experiment. Again, the convergence of the findings can help to validate the results. Finally, we can also imagine combined studies in which a sample of respondents is approached in some traditional way, but instead of administering some research instrument to them they are asked to log on and complete the survey or experiment online. This can happen at home (which would be basically the same as a take-away questionnaire) or in more controlled circumstances such as a computer lab.