



COMMENTARY

## Commentary: Pilot Studies

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**ABSTRACT** *As its label implies, a pilot study or project is a trial of an idea that may be a new instructional model, innovation, technique, or curriculum reform. Originally it was used for trials of large-scale research designs. Pilot studies and their close relatives, feasibility studies and demonstration projects, have had a varied pattern of use since the 1960s. Kamin et al. (2001) have provided us with an excellent example of how a pilot project can be undertaken to identify the strengths and weaknesses of an instructional model prior to widespread and/or permanent adoption of its use.*

**KEYWORDS** *Pilot studies, feasibility studies, pilot testing.*

### Advantages of Pilot Testing

As Borg and Gall (1989) describe, pilot testing allows for testing the efficacy of a proposed concept or concepts and allows for modification prior to full-scale adoption. These changes often arise from unforeseen events or ideas not originally considered. A third advantage lies in the opportunity to validate statistical approaches and instruments to strengthen their impact when full implementation is tested. Pilot studies also provide an opportunity to discover errors in treatment, often a main element of instructional innovations.

The potential for enjoying considerable cost savings is another obvious reason to undertake pilots of innovations prior to investing resources in wholesale change. Obtaining feedback from research subjects provides yet

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another advantage of pilot studies, and focus groups, as noted by Morgan (1998), provide one mechanism for obtaining and recording feedback from subjects.

## **Pilot Studies and the Change Process**

Logical arguments for instructional innovation with a high degree of face validity proposed by respected medical educators are necessary, but not sufficient, to convince skeptics that innovations should be implemented. Pilot studies provide a number of dimensions useful in the change process. Statistical evidence is the first and most important of these dimensions. In our current environment, appropriate data documentation is a prerequisite for any serious consideration of a proposal.

Pilot studies, however, in conjunction with sound statistical approaches, have other advantages in the change process. Specifically, pilot studies provide an opportunity for those involved to try out an innovation, to determine the ease of its use and its relative advantages, which can have a positive impact on ultimate acceptance. Some changes that appear complex initially may be seen as less so upon trial. Finally, it may be found that the proposed change may be more compatible with existing practices and values than initially believed by those involved (Lanphear, 1999; Rogers, 1995).

## **Publishing Pilot Studies**

The published results of pilot studies can provide valuable contributions to the ongoing improvement of educational programs in professional schools. Even those pilots that are not successful provide a platform for further explanation. To be useful, pilot studies should fulfill several criteria:

- meet the conditions of sound research design and statistical analysis;
- employ statistical tools and methods appropriate to the sample used;
- describe strengths *and* weaknesses of the study;
- acknowledge failures so that those who follow will avoid these problems; and
- recognize that a finding of no significant difference may be an important result if variables such as cost or subject motivation are positively affected.

In the study by Kamin *et al.* (2001) these criteria have been met. They have demonstrated the efficacy of the approach using appropriate design and statistical analysis. They also indicate potential issues of perceived isolation and suggest the need for further larger-scale testing of their model.

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