

Language program evaluation: Quantitative or qualitative approach?

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Tóm tắt. As in many other disciplines, research methodology in language program evaluation is classified into different paradigms by different scholars. No matter what classification each researcher follows, research in language program evaluation can be conducted according to two general approaches: positivistic/quantitative and naturalistic/qualitative. This article will attempt to review these two major paradigms by (i) giving the definition of each paradigm and presenting its logic of justification; (ii) outlining the major research methods employed in each paradigm; and (iv) critically evaluating each paradigm. The article will argue that program evaluators should appropriately combine the two approaches to maximize the effectiveness of their evaluation.

1. Introduction

To precisely measure the outcome of a language program is the purpose that any program evaluators want to achieve in the evaluation process. However, evaluators have to rely on either quantitative or qualitative approach which has its own strengths and weaknesses. The researchers accordingly need to appropriately apply the two approaches to minimize their limitations in order to bring about the accurate evaluative results.

2. Positivistic approach

This paradigm stems from natural sciences in which researchers attempt to find

reality by doing experiments. It has been greatly favoured by applied linguists as well as language program evaluators.

2.1. Definition

There are a large number of definitions of positivistic research either general or descriptive, but it seems that defining the paradigm is not an easy task. Of all the definitions, the following appears to be the most comprehensive one. According to Nunan [1], "... quantitative research is obtrusive and controlled, objective, generalisable, outcome oriented, and assumes the existence of 'facts' which are somehow external to and independent of the observer or researcher".

This definition presents clearly the ontological and epistemological bases for the paradigm. Ontologically, positivistic

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researchers hold the belief that there is a reality existing independently of researchers' minds and interpretation (Lynch [2]). The reality is objective and value-free. The researchers' task is to discover this reality by doing experiments to eliminate alternative explanations (Reichart and Rallis, cited in Mertens [3]) on the basis of the belief that there is a causal relationship between independent and dependent variables. This ontology decides the epistemological basis for positivistic research, which requires researchers to be outsiders to maintain the objectivity of the truths, and to prevent any biases from influencing their work (Mertens [3]). Therefore, researchers have to set up a "control" condition to observe the causality relationship among variables (Burns [4]) and rigorously follow the prescribed procedures (Mertens [3]).

2.2. Research methods

The positivistic logic of justification is reflected in the research methods chosen by language program evaluators that hold this view, namely experiment, particularly quasi-experimental design, and large-scale survey. That is, positivistic evaluators often design research with a "control" condition before coming to the site, dividing students into control and experiment groups. They use quantitative methods such as tests (pretests and posttests) to measure the effectiveness of language programs. Alternatively, they can obtain data from a large representative sample by using large-scale surveys. As the data collected are numerical, they use well-established statistical procedures to analyse the data and give evaluative claims of the programs by interpreting statistics. They consider the extreme cases as deviant cases or "outliers", so there is no need to investigate the cases.

In the history of language program evaluation, the positivistic paradigm have been employed in a number of studies for summative purposes by Keating [5], Smith [6] and Genessee [7], to name a few. In the Pennsylvania Project (Smith [6]) the evaluators chose the quasi-experimental design to compare the effectiveness of three teaching methods: the traditional method, the audio-lingual methods and the method combining functional skills with grammar. The traditional method group was the control group and the other two groups were experimental ones. The researchers collected numerical data by administering the Modern Language Aptitude Test to students at the beginning, in the middle and at the end of the experiment. After four years investigating the programs, researchers concluded that the audio-lingual methods, the then greatly favoured methods by language teachers and methodologists, did not excel the traditional method.

2.3. Critical evaluation

Of course, the positivistic paradigm has proved its strong points such as objectivity, replicability and generalizability. As the ultimate aim in positivistic research is to discover the objective truths, researchers can minimize their biases in interpreting the research results and can limit their interference in the setting and subjects. Also, researchers conduct experiments in controlled conditions, so it is easier to replicate and generalize their findings into settings with similar conditions.

However, many researchers who are critical of positivism argue that there are many flaws to this paradigm. First, positivists seem to be oversimplified when claiming that the reality is objective and detached from the observers, and that this reality can be

discovered through controlled experiments. Assuming that researchers can control the extraneous variables affecting their experiments, when they analyse the data, they still have to subjectively interpret statistics (Smith [8]). Second, Long [9] criticizes that as the positivistic, experimental evaluators only focus on product or outcome of the programs, they will fail to take into account the process of how the program was being carried out. He argued that without a description and clear understanding of what actually happened in the program, there would be many plausible explanations for the outcomes of product evaluation. Finally, there are threats to the reliability and validity of tests - a common research tool in positivistic studies - such as the construct validity, validity in scoring, face validity and raters reliability (Bachman [10], Hughes [11]).

3. Naturalistic research

The critics against positivistic paradigm created the premises for the development of naturalistic paradigm. Because of its improvement of weaknesses of positivism, the naturalistic approach has been employed by a great number of language program evaluators.

3.1. Definition

Nunan [1] defines that "[q]ualitative research ... assumes that all knowledge is relative, that there is a subjective element to all knowledge and research, and that holistic, ungeneralisable studies are justifiable ...". It is apparent that naturalistic researchers believe that truths are value-laden and subjective (Lynch [2]). That is, there is no objectivity in the sense of truths about a

program that exist independent of researchers' attempts to perceive, interpret and understand these phenomena. Mertens [3] adds that according to naturalistic ontology, reality is socially constructed, so it may change through the process of investigation of researchers. Contrary to positivists, naturalistic evaluators pay more attention to what actually happens in the programs and view programs as live entities with continuous changes rather than fixed in invariant controlled treatment. In order to achieve the thorough understanding of the programs, investigators turn themselves into insiders in the program by exploiting emic approach. This emic view also enables researchers to confirm their interpretation as Guba and Lincoln [12] state that in naturalistic paradigm, the concept of objectivity is replaced by confirmability.

3.2. Research methods

The major research methods employed in naturalistic approach are in-depth interviews, observation, questionnaires and document reviews [2,3]. To gain emic understanding of the programs, evaluators normally observe the actions and participants in natural occurring settings. Then they can conduct in-depth interviews with some participants to get further understanding. Accordingly, naturalistic evaluative reports include thick description of data. In data analysis, researchers focus on categorizing data and take deviant cases into account because they argue that deviant cases still have some values which should be considered and discussed.

In language program evaluation, naturalistic approach is often used for formative purposes to recommend

changes/improvements to the programs. Many program evaluators such as Marottoli [13], Schotta [14], and Alderson and Scott [15] apply this approach in their evaluative research. In these studies, the main research methods used were participant observations, interviews, questionnaires, student journals analysis.

3.3. Critical evaluation

Although it cannot achieve the dominance in program evaluation research as positivistic paradigm, naturalistic approach does have some strengths. Most importantly, it improves the serious failure of positivism to investigate the process of what happens in the program. The emic approach of naturalistic evaluators enables them to deepen their understanding of the program, thus accounting more thoroughly for the outcomes of the program (Lynch [3]). Because of the observations of actions in their natural context and interviews with participants, naturalistic evaluators can adjust their assumptions and design according to the data (Goetz and LeCompte [16]), and verify their hypotheses (Kirk and Miller [17]). Wilson [18] adds that being participant observers, researchers can choose the necessary informants and decide on the suitable way to get the necessary information.

However, naturalistic approach also receives a great deal of criticisms on their methods and reliability. Employing observation, researchers have to experience the "observer paradox" (Labov [19]), i.e. the influence of researchers' presence on the naturalness of participants' behaviour. The emic approach also puts investigators in the dilemma of attempting to be an insider but not losing their professional distance. More importantly, critics question the reliability of the data and researchers' interpretation (Hammersley, 1992, cited in Silverman [20]).

As researchers are quite subjective in their observation and interpretation, critics cast doubt on the consistency in their description and whether they interpret correctly what they are observing in the programs. This entails another weakness of naturalistic approach, which is the anecdotalism (Silverman [20]). In reports, sometimes researchers spend more on describing some apparent phenomenon without attempting to give less clear or contradictory instances. This lack creates threats to the validity of researchers' explanations because they are situation-specific rather than reporting the whole picture with opposite cases. Furthermore, the long-term exposure in the field to gain emic views of the program can make investigators misinterpret data or overlook the typical situations (Taft [21]). Finally, the state of researchers being situation-specific with thick description of a program limits the generalizability of the evaluation study.

4. Conclusion

The review of the two approaches shows that they both have strengths and weaknesses; therefore, evaluators should combine the two to enhance the effectiveness of their investigation. In fact, language program evaluators recently have exploited the methods from both paradigms in their research, for example Lynch [22], Brown [23], and Lightbown and Halter [24]. Moreover, Guba and Lincoln [12] argue that today is time for the fourth generation evaluation adopting constructivist methodology. Lynch [3] also argues that two paradigms should be used complementarily to improve the weaknesses of the methods, and to adapt to the different inquiries of different program evaluation studies.

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Đánh giá chương trình giảng dạy ngôn ngữ: Đường hướng định lượng hay định tính?

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Giống như trong nhiều lĩnh vực khác, phương pháp nghiên cứu trong đánh giá chương trình giảng dạy ngôn ngữ được nhiều học giả khác nhau phân loại theo những đường hướng khác nhau. Nhưng tựu chung lại các phương pháp nghiên cứu đó đi theo hai hướng cơ bản là thực chứng/định tính và tự nhiên/định lượng. Bài báo này nêu lên những đánh giá về hai đường hướng nghiên cứu đó thông qua (i) nêu lên định nghĩa và logic thực hiện; (ii) phân tích những phương pháp nghiên cứu cơ bản được dùng trong mỗi đường hướng; và (iii) đánh giá về ưu khuyết điểm của từng đường hướng. Dựa trên những đánh giá chúng tôi cho rằng khi đánh giá chương trình giảng dạy ngoại ngữ, nghiên cứu viên nên kết hợp phương pháp của cả hai đường hướng để đạt được kết quả đánh giá tối ưu.