The Development and Application of a Naturalistic Methodology for Situational Sense-Making as a Program Evaluation Strategy in Teacher Education

by James Nolan. Unpublished Doctoral Dissertation, Pennsylvania State University, August, 1983.

Reviewed by
D. Jean Clandinin
University of Calgary

In this study James Nolan undertakes the task of evaluating the core component of the recently revised secondary education program at the Pennsylvania State University. His purposes in the study are two-fold: to develop "a naturalistic methodology for situational sense-making as a vehicle for evaluation" (Nolan, 1983, p. iii) and "to apply that methodology to evaluate . . . the central element of a secondary teacher education program" (Nolan, 1983, p. iii). To achieve his purposes, he devises and employs a naturalistic method of process evaluation "designed to investigate, describe, and interpret the experiences and perceptions of the curriculum authors, instructors, and students involved in this component of the program" (p. 1). Comparisons are made among the process aspects of the curriculum: as originally envisioned by the curriculum authors, as implemented by program instructors, and as experienced by students.

The author was both researcher and participant in the program. While conducting the research, he served as an instructor in the program. He saw both advantages and disadvantages in his dual role. Concerned about biasing his findings, he took exceptional measures to guard against investigator bias. However, he found advantages in that he already had a certain degree of trust from the three groups of study participants and an "insider's" point of view from which to make sense of the data.

His concern to present a fair and complete evaluation of the core component of the program is evidenced by the thoroughness of the data collection and analysis *and* by the measures he took to "monitor" and "minimize" his investigator bias. He begins his study with what he terms "twelve postulates" rooted in the theoretical literature that support the general need for the study: six support the need to develop a method to evaluate process; three support the need to be especially concerned for process evaluation in teacher education programs; and three support the appropriateness and benefit of using a naturalistic paradigm to evaluate process. He formulated seven research questions that structured the study: the

321

first two asked how the curriculum authors and instructors would expect students to describe the experience of being a student in the core program; the third asked how students would describe and interpret the experience of being a student; the fourth asked what factors, conditions and variables were perceived by instructors as facilitating or hampering the implementation of the program; the fifth and sixth asked whether students in different cycles and different content areas describe their experiences and perceptions differently; and the seventh asked students what factors, conditions, and variables were perceived by students as playing a major role in the experience of being a student.

Data from the three groups of informants—curriculum designers, instructors, and students (those both currently involved and those who had completed the program)—were collected using four part questionnaires (two parts made up of open-ended questions, one part using a semantic differential technique, and one part using a modified Q-sort procedure), focused interviews, program documents, and weekly journals. In the journals the students were asked to describe their experiences and perceptions concerning the teacher education process.

Interpretation of the data was a five step process for each of the seven research questions. In the first step, key ideas were located and confirmed. The key ideas, summarized for each question, were ideas such as "Don't hold breath for excitement—don't procrastinate" (p. 278). These key ideas were then formulated into categories and common themes. For example, the above key idea was categorized in CATEGORY D: Advice to Future Students. The next step in data interpretation was the formation of generalizations that were based on the common themes and categories. The key idea noted above contributed to the generalization that instructors expected students to describe the experience of being a student in that professional block of courses as "an experience in which students felt compelled by the constant written evaluation of student competency to concentrate on the completion of individual assignments and forget conceptual integration" (p. 91). Once done with stating his generalizations, the author, in what he calls "an attempt to point out the match between the generalizations and the original data" (p. 90), developed a narrative response to the research question drawn from the original data. In his narrative response sections, he illustrated the generalizations with narrative statements as well as "illustrative quotes drawn from the original data source" (p. 222). The final step in the data interpretation process was the development of research hypotheses derived from the generalizations.

The same interpretive process was repeated for each of the seven research questions. At the conclusion of the lengthy interpretive chapter, the author drew the generalizations derived from the seven

questions into a brief summary. Following this summary, he offered a series of fifteen hypotheses as possibilities for future testing.

His final chapter has two main sections: one deals with the substantive findings of his evaluation and the second deals with the methodology employed in the evaluation. For his first task, he lists the substantive findings, provides suggestions for program improvement in the form of questions to be considered, and offers recommendations for future research. For the second task, he presents an overall assessment of the methodology, makes recommendations for improvements in the methodology, and finally discusses issues to be considered in using the methodology.

This dissertation is thorough and welldone. Does it answer the questions that the author lays out for himself? His method of inquiry is designed to generate hypotheses for future investigations. But the evaluation "was also intended to reveal the experiences of the curriculum authors, program instructors, and students and to portray those experiences in a manner which would be helpful for making improvements in the curriculum and in the process of curriculum development" (p. 219). The answer is a qualified "yes." He does generate hypotheses for future assessment and we do learn "the perceptions" (p. 1) of the various constituency groups. But does the dissertation give us a sense of "the experience" (p. 1) of students in the program? Does he accomplish Stake's admonition, quoted at the introduction of his interpretive chapter, which reads:

We need to portray complexity. We need to convey holistic impressions, the mood, even the mystery of the experience. (Stake, 1980, p. 84)

Certainly, as I read the dissertation, I find the account captures the "complexity" of the program through the detailed account the author gives. Perhaps, in the multilayered nature of the data collection that allows us a look at three different groups at three different levels of involvement, it captures the "holistic impressions." But the "mood," the "mystery" of the experience, I think not.

And it is here I think the author can go further and indeed should go further for I suspect, as one who uses student journals in her teaching, that he has much journal data that would allow him to give an account of the experience of being a student in the teacher education program he describes. My use of student journals is, of course, somewhat different from Mr. Nolan's. Mr. Nolan asks students to describe their experiences in the teacher education process while I ask students to use what they are reading and hearing in class to reflect on themselves as prospective teachers. The journals I respond to each week are rich in the detail of the students' experiences in their program. The same is surely true of the journals Mr. Nolan has collected.

How then can we advise Mr. Nolan to go further with his already available data and his stated purpose of giving an account of the students' experiences? The account of the experience of *being students* should take a different form than the account of the *perceptions of the students*. How do we capture the mood, the mystery of the experience? And if we can capture it, how do we portray it so others can read and participate in understanding the experiences?

Eisner (1981) spoke to matters of form in his paper on the differences between scientific and artistic approaches to qualitative research. His comments in that paper inform the future directions I suggest to Mr. Nolan. Eisner points out that "form is regarded as a part of the content of what is expressed and bears significantly on the kinds of meanings people are likely to secure from the work" (p. 7). And following Eisner, I ask Mr. Nolan to consider what form the account of students' experiences in the teacher education program should take and with what criteria should it be judged. Eisner (1981) draws attention to the different criteria for appraisal used by scientists and artists. The scientist, according to Eisner, asks whether the conclusions are supported by the evidence and whether the methods used to collect the evidence biased the conclusions. These are the questions Mr. Nolan posed for himself in his study. Validity in the arts, on the other hand, "is the product of the persuasiveness of a personal vision; its utility is determined by the extent to which it informs ... What one seeks is illumination and penetration" (p. 6). These are the kinds of questions Mr. Nolan needs to ask when he turns to the problem of rendering students' experiences.

There are a multiplicity of forms with which we can capture experience. Recently, and for another purpose, I read Sarah Lawrence Lightfoot's (1983) book, *The Good High School*. Lightfoot calls her accounts of six high schools "portraits" because she believes portraiture allows "a measure of freedom from the traditions and constraints of disciplined research methods" (p. 13) and because she hopes the "work would be defined by aesthetic, as well as empirical and analytic dimensions" (p. 13). In her portraits, Lightfoot achieves this linking of the scientific and the aesthetic of which Eisner writes, Miles and Huberman's (1984) recent disclaimers notwithstanding. Her portraits are aesthetic and should be judged, in part, by aesthetic standards. They are portraits, although in a written and not a visual form. But the form they take is partly shaped by aesthetic considerations in that it is "to some extent a visual medium, full of powerful imagery" (Lightfoot, 1983, p. 22).

Lightfoot's portraiture is not the only form in which the scientific and the aesthetic can be linked in giving an account of participants' experiences. Wood's (1982) work, recently reviewed by Smith (1983) in this journal, portrays the experiences of children in divorced single parent families. Wood, through her development of themes,

gives a picture of the experiences of the six individuals and their families and, through these six experiences, of children more generally. McCarthy's (in press) work captures the experience of students in a summer enrichment program. McCarthy renders her account as a short story, organized around themes, of the week-long experience of students in the program. The latter two accounts are rendered differently than Lightfoot's but nevertheless have captured the experience of the participants by their skillful linking of both scientific and aesthetic approaches.

One of the striking characteristics of these latter three accounts is that they are rich in detail of the individual. The "individual faces and voices are rendered in order to tell a broader story ... Details are selected to display general phenomena about people and place" (Lightfoot, 1983, p. 7). For Lightfoot, the detail of individual participants in her high schools is used to "paint" the portrait of the school. Similarly, in the other two studies, we learn about the search for genuine intimacy by both children and adults alike in one mother's compulsive dating in the Wood study (Smith, 1983) and about narrative as a tool for helping students read and write history in reading Jennifer's creation of a Victorian identity in the McCarthy study (in press). The accounts are full of transcript and field note data that, through the individual and unique, convey a sense of the lived experience of the participants. Mr. Nolan makes such an attempt in his narrative responses to some of his research questions. But he does this uncertainly and inconsistently and with, what appeared to this reader, a sense that perhaps the narrative description was not appropriate.

Lest a reader misread my intent, my point to Mr. Nolan is not that he abandon what he has done, nor do I suggest what he has done is not well conceived and carefully done. He has done much that Miles and Huberman (1984) point to as "good" in doing and reporting qualitative research. But in what he has given us in the dissertation, Mr. Nolan has not yet captured "the experience" of being students in the teacher education program. He should return to his data, particularly his journal data, and give us the promised account of the students' experiences of the program. Questions of form and of the rich detail of the individual and the unique are of first consideration. To respond to these questions, he must turn to the artistic, "not as a rejection of the scientific, but because with both we can achieve binocular vision" (Eisner, 1981, p. 9).

References

Eisner, E. (1981, April). On the difference between scientific and artistic approaches to qualitative research. *Educational Researcher*, 5-9.

Lightfoot, S. L. (1983). *The good high school*. New York: Basic Books.

McCarthy, A. (in press). Creating Victorian Philadelphia: Children reading and writing the world. *Curriculum Inquiry*.

Miles, M. B., & Huberman, A. M. (1984, May). Drawing valid meaning from qualitative data: Toward a shared craft. *Educational Researcher*, 20-30.

Nolan, J. F. (1983, August). *The development and application of a naturalistic methodology for situational sense-making as a program evaluation strategy in teacher education*. Unpublished doctoral dissertation, Pennsylvania State University.

Smith, D. G. (1983). [Review of *Growing up with divorced parents: A phenomenological study of preschool children's experiences*]. *Phenomenology and Pedagogy, 1*(1), 89-92.

Stake, R. (1980). Program evaluation particularly responsive evaluations. In W. B. Dockwell & D. Hamilton (Eds.), *Rethinking educational research*. London: Hodder and Stoughton.

Wood, A. L. (1982). *Growing up with divorced parents: A phenomenological study of preschool children's experiences*. Unpublished doctoral dissertation, University of Michigan.