ED151

Introduction to Qualitative Research Methods

Qualitative Research Critique on

“One Teacher and a Class of School Students: their perception of the culture of their mathematics classroom and its construction”

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For this critique, I have chosen an article titled “One Teacher and a Class of School Students: their perception of the culture of their mathematics classroom and its construction,” Angier, Corinne and Povey, Hilary (1999) published in Educational Review, 51(2) 1999.

This paper investigates the culture of the mathematics classroom through the lens of one teacher, Corinne and a class of school students. It aims to study this context in detail and, by listening carefully to the participants within it, offer a contribution to the understanding of the mismatch between the culture of mathematics classroom and the views and needs of her young participants. In doing so, it seeks to privilege their voices and suggest a renegotiation of what it means to be a teacher in a secondary mathematics classroom.

The article started by providing a general overview of the paper. The overview introduces the authors’ concept of a classroom culture, one that is shaped and experienced by each student differently. The authors put forth their belief that students’ perspectives are critical to improve schools. A metaphor – spaciousness – was chosen to reflect their view of what the students wanted and needed, and they proposed that a reappraisal and renegotiation of what a ‘proper teacher’ means is timely.

The class involved had 30 students, and the research was done during the students’ ninth, tenth and eleventh grade. Data was collected from five sources: 1) questionnaires completed by the whole class during their tenth year, 2) group interviews with three separate groups of students (one boys, one girls and one
mixed), 3) conversations with the teacher, Corinne, 4) students’ written responses to questions from Corinne, and 5) interviews with her.

Although details on the data source and collection methods were listed and described briefly, description of data analysis was glaringly missing. There was no conceptual framework or organizing themes arising from the data analysis. Excerpts of observations made or interviews recorded were scattered over the subsequent two sections of the paper, which deals with the authors’ proposed metaphor of “Spacious Mathematics” and “Spacious Teaching and Learning”. Considerable paragraphs were used to describe the problems in the existing system – for example, the problems caused by imposing the new curriculum on the teacher and her class - and the authors’ disposition of the importance of social relationship in teaching and learning. Interviews and conversations with the students, as well as their written responses, i.e. data collected from the various sources, were interspersed in a piece-wise manner as and where they fit the context and argument. It seemed that, instead of building a theory that fits the data, the authors sought and fitted data (or parts thereof) into the different sections of their theories to elaborate and support their views. There was no strong support or further elaboration of how the authors’ interpretation came about or why they make sense.

For example, under “Spacious Teaching and Learning”, where the authors expounded on the need for more spacious classroom relationships, interviews with students elaborating how well they got along with their teacher, Corinne and in contrast, how they found it difficult to work with another were interpreted as the need for informality in a classroom culture. This interpretation seemed, to me, a little superficial and lacking in depth. What were the circumstances leading to those
statements made by the students? What was their background? What was the nature of the relationship between this particular teacher and her class? How long have they been together? Would informality work just as well for effective learning in a classroom for a teacher who is not as well-liked as the one in question? Some of these questions are especially relevant when one considers that the teacher of the class (Corinne) for this research study is also the co-author of the paper and in this study, the teacher, her context – her background, values and beliefs, relationship with students, plays an important role that could have significant influences and implications. Yet, nowhere in the paper was this potential subjectivity issue addressed or examined. The dual role of a teacher as researcher is not unheard of in qualitative research articles; that is not a problem. But in my view, this issue should have been better addressed and stated for readers’ awareness. In this regard, in this paper, the only time it was mentioned (that the co-author was also the teacher involved in the study) was in the first line of “Introduction” and in parenthesis.

The lack of deeper analyses or interpretations; and the fact that many questions were unanswered and unexplained, led one to feel that the authors readily jumped into the conclusions and a convenient interpretation they wanted.

The next two sections of the paper deal with the students’ preference for a supportive and cooperative learning environment in the classroom, and the importance of developing in the students a positive epistemology. They follow a similar format in its presentation of students’ responses during interviews: their preference for group work and mutual support; their understandings on the open nature of mathematics and the students’ perceived openness and tolerance of the teacher. However,
compared to the preceding two sections, this part of the article was comparatively more developed in its concept, and better supported with evidence and explanation.

Finally, in the conclusion, the authors reiterated the need for a different model both for teacher and student dynamics, one that takes in the social maturity of the students. Toward the end, the importance of a spacious curriculum inseparably intertwined with spacious relationship is emphasized and suggested again, in the aim of growing a more democratic mathematics.

To sum up, this article aims to investigate the culture of a mathematics classroom through the lens of one teacher and her one class of students. Because of the lack of an in-depth analysis and interpretation of the data collected, I find this article lacking depth and understanding, both in terms of understanding the students’ perception of the culture in the mathematics classroom and of what it takes to build such a culture. While the ideas of “spacious teaching & learning” and “spacious mathematics” espoused in the article are clear and thoughtful, the article did not provide a good explanation on how these theories are supported or developed from the research done. The issue of subjectivity of the teacher as co-author was not addressed adequately, thus affecting the article’s perceived credibility. So overall, I would say it is a good read but somewhat weak qualitative research article.

References: