Retrospective Action Research on Facilitating Equitable Learning Outcomes in a Diverse Class

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Abstract: In a South African class with complex diversity, certain student groupings were not performing equitably in relation to their potential. An Educational Action Research (AR) process of designing multiple, integrated practice changes over three years successfully redressed disparities, but the full impact of interventions could only be analysed in retrospect. Combining empirical observations with subsequent data collection to produce a theorised model, a transferable methodology using quantitative triangulation was designed to overcome the challenges of a rigorous retrospective AR study. This article discusses the integrated teaching interventions and the application of retrospective AR methodology.

Keywords: action research, retrospective study, equitable learning outcomes, diversity

La Investigación Acción restrospectiva en la facilitación de resultados equitativos del aprendizaje en una clase diversa

Resumen: En una clase de Sudáfrica con diversidad compleja, algunos grupos de estudiantes no estaban teniendo logros que se correspondían equitativamente con su potencial. Un proceso de investigación acción educativa (IA) en el que se diseñaron cambios múltiples e integrados en la práctica a lo largo de tres años ajustó estas disparidades con éxito, pero el conjunto del impacto de las intervenciones sólo pudo ser analizado en retrospectiva. Mediante la combinación de observaciones empíricas y la subsiguiente recolección de datos para producir un modelo teorizado, se ha diseñado una metodología transferible que utiliza una triangulación cuantitativa para superar los retos a los que se enfrenta un estudio de IA retrospectivo riguroso. Este artículo debate las intervenciones educativas y la aplicación de la metodología retrospectiva de IA que se produjeron de forma integrada.

Palabras clave: Investigación acción, estudio retrospectivo, resultados de aprendizaje equitativos, diversidad

1.   The problem context

This project did not start as an educational research study – it was simply an urgent teaching problem to be solved. I had started teaching Architectural Design (AD) to a first-year class in a Bachelor of Architectural Studies (BAS) degree at a South African university, using the pre-existing course, and found that in a class of students coming from diverse lived experiences, students with the same potential were not achieving the same academic outcomes. The learning outcomes were non-negotiable for the accreditation of the degree, the syllabus was set and the variables that I could redesign were the approach, format and content of actual

lectures and tutorials, assignments, student support and ways of teaching. In the context of a previously racially segregated society, epistemological access to university degrees was a social justice issue. My immediate challenges were: How should I change my teaching to give all students equitable access to successful academic outcomes? Equally importantly, how could I equip future architects with a broader social understanding that would enable them to be relevant designers in a diverse society? These problems had to be solved in action, without the time to test them. We tried various, simultaneous, potential solutions, making it difficult to track which teaching changes produced which results. The other key question was whether first-year teaching interventions could create a foundation for ongoing success in future learning.

2.   Introduction

The process of developing improved ways of teaching AD happened over the three years in which I led the first-year AD course. By the end of this time there was an ever-improving pass-rate in the course, and it also seemed that students who had done the revised course continued to perform successfully afterwards. This merited a formal study, which was accepted as a PhD proposal, and is described in detail in the dissertation (Janse van Rensburg, 2015). The objective of the retrospective study, conducted after the changes in teaching had been completed, was to confirm whether these changes had indeed improved learning outcomes, whether these outcomes were sustained after completing the course, whether equal opportunities could be created by using this model, and to produce a theoretical model that could be applied in similar contexts.

AR principles had been followed from the beginning using a practice mode with a strong secondary emancipating mode (Kemmis & McTaggart, 2003), but the retrospective study required a shift to a knowledge-generating mode which presented additional methodological challenges. This paper also aims to describe the methods that were used to meet the criteria of dependability/reliability and process validity in a situation where student feedback and certain types of evidence were not consistently collected when the interventions started, and where continued outcomes could only be assessed after some time had elapsed. I believe that this can provide a precedent for similar studies where some data can only be collected after the actual interventions have been completed.

The contribution of this paper to the field of AR is therefore two-fold: It addresses the question of how equitable academic success can be facilitated in diverse learning communities, as well as how to produce valid AR in a context where one has to resort to retrospective data collection.

The action outcome of this study was that students' overall academic outcomes improved, and there was a much more equitable distribution of marks in the class, as we developed strategically sequenced educational tasks to build a foundation of social and academic skills while teaching the formal syllabus. This pattern of improved performance continued as these students progressed into subsequent years of study. This research is relevant in many diverse learning communities where disparities in prior experience can polarise or enrich learning, particularly in the escalating context of global migration.