AN EVALUATION OF A TEACHER DEVELOPMENT CONTRACT

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1993

An Evaluation of a Teacher Development Contract

An administrative project submitted in partial fulfillment of the requirements

for the degree of

Masterate in Educational Administration

at Massey University

by

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1993

ABSTRACT

This project reports an evaluation of a teacher development contract that was concerned with science teachers in primary and secondary schools in the Thames-Coromandel area. Teachers in the region were invited to become part of a group of twenty teachers, who met in a series of thirteen meetings and also participated in a series of classroom based visits. The teacher development programme was based on a Learning in Science Project (Teacher Development) course that was established as part of research into teacher professional development in science. The work was informed by a constructivist framework of teaching and learning.

Data was collected by pre- and post-course survey documents, observations made during classroom visits with the course participants and reflective writing exercises undertaken during the course. Data collection was negotiated with the participants and was voluntary. The enthusiastic involvement of the course members suggests that teaching in a manner that takes into account students' thinking creates a positive learning environment in the classroom. Results showing significant changes in teacher behaviours suggested that the different teaching approach presented was attractive to classroom teachers. Classroom observations supported the results of the surveys.

It was evident that along with these changes in classroom practice, teachers' views and theories concerning science teaching and learning developed in ways consistent with features of a constructivist approach to teaching and learning. Teachers expressed their support for what they saw as a new approach to teaching science and felt more confident with dealing with science topics. This was especially evident with the primary teachers on the course.

The teacher development programme in science, junior primary to form five, appeared to be successful in achieving its aims. These aims were to help teachers develop their ideas regarding the importance of on-going professional development, to help teachers learn about research findings on how students learn science and to develop their classroom practice to take into account students' thinking.

ACKNOWLEDGEMENTS

I am grateful to the Education Department at Massey University for the support and guidance over the years of this degree study. I am particularly grateful to Associate Professor Wayne Edwards and my supervisor, Dr Janet Burns for their encouragement and assistance.

I also grateful to the teachers who volunteered for the teacher development course and gave freely of their time over the year of the study. They welcomed me into their classrooms and shared their activities and thoughts openly.

I would also like to thank:

Dr Beverley Bell, assistant director of the Centre for Science and Mathematics Education Research who encouraged me to bid for the teacher development contract and in the early stages of the course shared her thoughts and experience with me.

Dr Garth Ritchie, Research and Statistics Division, Ministry of Education, for his friendly advice and assistance with the quantitative data analysis.

Dr Susan Rodrigues, Dr Amarjit Singh and Mr Ernie Verbowski, all formerly of the Centre for Science and Mathematics Education Research who took time out of their own personal research programmes to have detailed discussions with me on many occasions, on all aspects of science education and teacher professional development.

The staff of Te Haeata, Hauraki Education Centre, Thames for their friendly welcome and constant help in ensuring the course environment was always positive and welcoming for all the course participants.

The Curriculum Functions group of the Ministry of Education for providing the funding for the course, especially Mr Steve Benson for his assistance in negotiating the contract.

Finally, special thanks are due to my wife Sharon and our children Zoë, Sam and Meredith for their love, encouragement and support over the course of this degree.

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INTRODUCTION AND OVERVIEW

1.1 INTRODUCTION

Teacher development in New Zealand is increasingly being done under contract with the Ministry of Education. Contracts are advertised with selections made from the proposals put forward from contractors. This particular contract was to provide a programme of teacher development to assist teachers of science (junior primary to form 5) with reference to: the existing science syllabuses, recent developments in science education including research findings, the proposed National Curriculum and developments which will occur as a result of the government's Achievement Initiative in Science.

The programme was designed to provide instruction, support and feedback to teachers in primary, secondary and composite schools in the Thames-Coromandel area on the provision of effective science education programmes in the classroom. The support and feedback focussed on the sharing and implementation of effective learning strategies and assessment techniques for science education.

The programme included:

- consultation with the Ministry on current curriculum developments with particular reference to science education;
- the dissemination of information about the programme to all schools in the Thames-Coromandel area and inviting schools to become involved;
- the selection of a target group of 20 resource teachers;
- visits to each participating school to meet with the principals and teachers to discuss the organisation and proposed outcomes of the programme;
- twelve meetings for the teachers to develop strategies for on-going support and development (3 one-day meetings, 9 afternoon/evening meetings);
- a series of on-going visits to participating schools to work with the resource teachers on the implementation of effective strategies for the teaching and assessment of science;
- the provision and dissemination of appropriate resources for all teachers of science education in participating schools.

Written into the contract was the need for the programme to be evaluated. The contract document states that:

- the contractor shall conduct an on-going evaluation of the programme, and shall incorporate any modifications deemed necessary in further programmes with schools;
- in addition to the contractor's own evaluation, the Ministry reserves the right to evaluate the programme.

This present study arose out of this need to evaluate the programme and reports on that evaluation.

1.2 CHAPTER OVERVIEWS

Chapter 2 describes the background to the teacher development programme.

Chapter 3 presents the teacher development programme with each programme session detailed. Responses to a final teacher evaluation of the programme are presented and discussed.

Chapter 4 discusses the theoretical basis for the methodology of the evaluation undertaken.

Chapter 5 presents and analyses the descriptive data taken from the pre-course survey on the professional backgrounds of the course participants.

Chapter 6 describes the visits made by the author to the participant teachers in their schools and discusses some of the lessons observed.

Chapter 7 presents the results from the two reflective surveys answered by the participants at the end of two course sessions.

Chapter 8 presents the results and analysis from the fourteen questions in Section B of the pre- and post-course surveys. These are used to monitor and show the changes in teacher beliefs, values and current teaching practice and discuss the extent to which the programme aims were realised.

Chapter 9 discusses and reflects on the results of the evaluation.

Chapter 10 concludes the thesis. A summary of the evaluation is presented.