

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

72  
6323

1  
4

THE DELPHI TECHNIQUE: A CASE STUDY OF  
ITS APPLICATION IN SCHOOL ADMINISTRATION

A thesis presented in partial fulfilment  
of the requirements for the Degree  
of Master of Arts at  
Massey University

Heidi Lee Foong Ngor  
1985

371.2  
Lee

DC20

## A B S T R A C T

The objectives of this study were:

- 1) To ascertain the challenges facing school administrators during the remainder of this decade, using the Delphi Technique.
- 2) To evaluate the potential of the Delphi Technique for school administrators.

To fulfil these objectives a small sample of school administrators (N=33) completed a three-round Delphi procedure. In the first round, participants were invited to respond to the question: "What are the challenges facing school administrators during the remainder of this decade?" A total of 136 statements were received and, after screening and editing, these were refined to a list of 34 items. For Round Two, respondents had their own Round One responses and the summary list of 34 items returned, and they were asked to reconsider the question about the future challenges facing school administrators, in the light of their previous reply and the group summary. A list of 42 statements, 33 of which appeared in the second round, was derived as a result of Round Two. In the final round, respondents were fed back the list of 42 statements and were asked to indicate the importance of each. A statistical analysis of data derived from Round Three indicated 'Staffing Practices and Issues' items were the most prominent amongst challenges facing school administrators during the remainder of this decade, with the most important issue being to 'improve staff professional competency and development through training, closer supervision and collegial support'.

A Follow-Up Evaluation of this three-round Delphi project was carried out to obtain information relevant to the second objective outlined above. The sample of school administrators was sent a questionnaire which, inter alia, sought their opinions on: the degree to which they concurred with the outcomes from Round Three; difficulties they encountered during the project; and advantages and disadvantages of Delphi. The tenor of the respondents' comments in this Follow-Up Evaluation indicated general support for the Delphi Technique as a potentially viable tool for school administrators.

And, finally, after considering the significant methodological issues that arose during the course of this study (e.g. the selection of the sample; the editing process) it was concluded that school administrators may find a number of advantages in using the Delphi Technique, particularly in areas such as curriculum planning, developing goals and objectives, and arriving at consensus and budgeting allocations.

## ACKNOWLEDGEMENTS

This thesis would not have been possible without the cooperation and support of a number of people, to whom I would like to acknowledge my appreciation for their involvement and encouragement.

I would like to express my sincere gratitude to Professor R. Adams and Mr Eric Archer for their help and understanding in the preparation of this thesis.

My most grateful appreciation and thanks to my supervisor, Dr. David Battersby, for his patience and untiring help throughout the year. His guidance has been invaluable and his encouragement carried me through this thesis.

My thanks are also due to:

Mr Wayne Edwards and Mr Tom Prebble for their help and advice, as well as for allowing me to use their class of extramural school administrators as my sample.

Miss Kennece Coombe whose moral support and kindness has been greatly appreciated. Thank you, too, for proof-reading this piece of work.

My sample of school administrators who spent much time in responding to the questionnaires despite their busy schedules.

Mr and Mrs Bill Ryan for their continuous moral support.

Mrs Marie Foster for her efficient typing and proof-reading of this thesis.

Finally, to my family who supported me tremendously in many ways.

## TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT .....	i
ACKNOWLEDGEMENTS .....	ii
TABLE OF CONTENTS .....	iii
LIST OF TABLES AND FIGURES .....	iv
 INTRODUCTION .....	 1
<u>CHAPTER ONE</u> The Delphi Technique .....	3
<u>CHAPTER TWO</u> Research Design .....	24
<u>CHAPTER THREE</u> Results and Discussion .....	42
<u>CHAPTER FOUR</u> The Potential of the Delphi Technique .....	57
 <u>CONCLUSION</u> .....	 75
 APPENDIX A .....	 77
APPENDIX B .....	79
APPENDIX C .....	82
APPENDIX D .....	86
APPENDIX E .....	91
APPENDIX F .....	95
APPENDIX G .....	97
APPENDIX H .....	100
 BIBLIOGRAPHY .....	 103

## LIST OF TABLES AND FIGURES

<u>Table</u>	<u>TABLES</u>	<u>Page</u>
1	A Summary Of The Estimated Number Of Bombs Required To Reduce The U.S. Munition Output	7
2	Delphi Studies In Education	18
3	The Sample	29
4	Coefficient Of Variation As A Stopping Criterion	38
5	Calculation Of The Coefficient Of Variation (V) From Round Three Results	39
6	A Summary List Of The Respondents' Round One Comments	44
7	A Summary List Of The Respondents' Round Two Comments	47
8	The Six Categories Of Challenges From Round Two Results	50
9	The Frequency Of Mention For Round Two Results	51
10	Round Three Results With Mean And Standard Deviation And Categories	53
11	The 'Pros' And 'Cons' Of Delphi As Noted By The Panel	64
12	The Attrition Rates For The Sample	66

FIGURES

<u>Figure</u>		
1	A Flowchart Of The Typical Delphi Process	8
2	The Overall Framework Of The Study (1984)	27