# Attitudes of Freservice Teachers Towards Gifted Students

## Neil Go don Carrington

Dip. Teach. Mount Gravatt College of Advanced Education 1981

Grad. Dip. Resource Teach. Brisbane College of Advanced Education 1986

M. Ed. (Spec.Ed.) James Cook University 1988

M. Ed. (Guid. & Coung.) James Cook University 1991

"A thesis submitted for the degree of
Doctor of Philosophy
of the
University of New England"

March 1997

I certify that the substance of this thesis has not already been submitted for any degree and is not currently being submitted for any other degree or qualification.

I certify that any help received in preparing this thesis, and all sources used, have been acknowledged in this thesis.

·

Neil Carrington

### **ACKNOWLEDGMENTS**

I am very grateful to and would like to formally thank the following people:

- Stan Bailey for his meticulous editing; and professional supervision.
- Dr Ken Vine for his statistical advice and invaluable guidance.
- Dr Greg Leigh for his advice and support.
- Dr Lorrainne Graham for her advice and support.
- My wife Suzanne and children Zoë and Georgia for their support and patience.

# TABLE OF CONTENTS

		page
1.	INTRODUCTION	1
	Historical perspective	
	The Tannenbaum study	5
	Significance of the problem and purpose of this study.	8
	Overview of the study	11
	Research questions	14
	Defining terms	15
	Assumptions and limitations	17
	Summary	18
2.	REVIEW OF THE LITERATURE	20
	Introduction	20
	Ability and effort issues	21
	Gender issues	28
	Attitudinal issues	36
	Attitudes and their measurement	45
	Australian policy	48
	Gifted education policy in New South Wales	55
	Summary	58
3.	METHODOLOGY	62
	Overview	62
	Sampling plan	65
	Survey procedures	71
	Cooperation	71
	Confidentiality	
	Coding, editing and ver fying	72
	Instrumentation	74
	The trait list	75
	The Rasch Rating Model	78
	Trait desirability scale	82
	The questionnaire	
	Construct validity	
	Factor analysis	
	Scoring procedures	

4.	RESULTS	101
	Introduction	101
	Trait desirability findings	101
	Answering the research questions	
	Main effects	110
	Interaction effects	110
	Research questions (a), (b) and (c)	112
	Primary preservice teacher results	113
	Secondary preser /ice teacher results	121
	Research question (d)	130
	Primary preservice teacher results	131
	Secondary preser /ice teacher results	134
	Research question (e)	144
	Primary preservice teacher results	
	Secondary preser/ice teacher results	151
	Research question (f)	
	Primary preservice teacher results	
	Secondary preser/ice teacher results	163
5.	DISCUSSION	171
٥.		
	Introduction	
	Ability of students  Gender of students	
	Gender of students Studiousness of students	
	Studiousness of students  Gondon of preservice teachers	
	Gender of preservice teachers	
	University of preservice teachers	
	Year of study of preservice teachers	
	Summary Implications for gifted and talented policy	163
	in New South Wales	186
	Implications for the education of gifted students,	
	with particular reference to gen ler	189
	Implications for the teaching profession and	
	preservice teacher education	190
	Implications for future research	
	Conclusion	
RE	FERENCES	197

# APPENDICES

		South Wales Government Strategy for the Education	
		ted and Talented students	209
		South Wales Department of School Education Policy	
		nent for the Education of Gifted and Talented Students	231
		y questionnaires administered to Primary Preservice Teachers	
		lus Characters A-H	256
D.	_	y questionnaires administered to Secondary Preservice Teachers	
		lus characters A-H	267
		Scale questionnaires administered to	
	Prima	ry Preservice Teachers	278
F.	Likert	Scale questionnaires administered to	
	Secon	dary Preservice Teachers	289
LIST C	OF TAI	BLES	
Table 2	2.1	Mean global scores: Tannenbaum (1962)	23
Table 2	2.2	Mean global scores: Glover (1993)	23
Table 2	2.3	Mean global scores: Carrington (1993)	24
Table 2	2.4	(a) Mean global scores: Inservice Teachers	
		Cramond & Martin (1987)	25
Table 2	2.4	(b) Mean global scores Preservice Teachers	
		Cramond & Martin (1987)	25
Table 3	3.1	Summary of all preserv ce teacher respondents.	67
Table 3	3.2	Primary preservice teac 1er respondents. Females	67
Table 3	3.3	Primary preservice teac 1er respondents. Males	67
Table 3	3.4	Secondary preservice teacher respondents. Females	68
Table 3	3.5	Secondary preservice teacher respondents. Males	68
Table 3	3.6	Detailed summary of all preservice teacher respondents.	69
Table 3	3.7	Response rates all preservice teacher respondents.	70
Table 3	3.8	Primary factors- eigenvalues and the proportion of variance	89
Table ?	3.9	Primary factor loadings	90
Table ?	3.10	Secondary factors- eige walues and the proportion of variance	91
Table ?	3.11	Secondary factor loadings	92
Table :	3.12	Example of scoring carried out to obtain a global score.	
Table :	3.13	Mean global scores: primary preservice teachers.	
Table :	3.14	Mean global scores: secondary preservice teachers.	

Table 4.1	Percentage of traits indicated as not relevant. 1	03
Table 4.2	Primary preservice trait weightings.	05
Table 4.3	Secondary preservice trait weightings 1	05
Table 4.4	Primary ANOVA table for 3-factor analysis of variance 1	13
Table 4.5	Secondary ANOVA tab e for 3-factor analysis of variance 1	21
Table 4.6	Primary ANOVA table for 4-factor analysis of variance,	
	by preservice teacher gender1	31
Table 4.7	Secondary ANOVA tab e for 4-factor analysis of variance,	
	by preservice teacher gender1	34
Table 4.8	Primary ANOVA table 'or 4-factor analysis of variance,	
	by preservice teacher university	45
Table 4.9	Primary preservice teac iers' mean global scores,	
	by preservice teacher university	145
Table 4.10	Secondary ANOVA tab e for 4-factor analysis of variance,	
	by preservice teacher university	151
Table 4.11	Secondary preservice teacher mean global scores,	
	by preservice teacher university	152
Table 4.12	Primary ANOVA table for 4-factor analysis of variance,	
	by preservice teacher year of study	155
Table 4.13	Primary preservice teacher mean global scores,	
	by preservice teacher year of study	155
Table 4.14	Secondary ANOVA tab e for 4-factor analysis of variance,	
	by preservice teacher year of study	163
Table 4.15	Secondary preservice teacher mean global scores,	
	by preservice teacher year of study	164
LIST OF FIC	ZI IDEC	
LIST OF FIC	JUKES	
Figure 4.1	Distribution of the infit nean square for	
	primary preservice teachers	107
Figure 4.2	Distribution of the infit nean square for	
	secondary preservice teachers	109
Figure 4.3	All primary preservice teachers,	
	mean global scores for all students	114
Figure 4.4	Primary preservice teac 1er mean global scores,	
	ability of students with regard to gender and application to study	115
Figure 4.5	Primary preservice teac 1er mean global scores,	
	application to study with regard to ability and gender	116

Figure 4.6	Primary preservice teacher mean global scores,	
	gender of students with 'egard to ability and application to study	117
Figure 4.7	Primary preservice teacher mean global scores,	
	nonstudious students with regard to gender and ability	118
Figure 4.8	Primary preservice teacher mean global scores,	
	studious students with regard to gender and ability	119
Figure 4.9	Primary preservice teacher mean global scores,	
	gifted students with regard to gender and application to study	120
Figure 4.10	Primary preservice teacher mean global scores,	
	average students with regard to gender and application to study	120
Figure 4.11	All secondary preservice teacher mean global scores,	
	for all students	122
Figure 4.12	Secondary preservice teacher mean global scores,	
	application to study with regard to ability and gender	124
Figure 4.13	Secondary preservice teacher mean global scores,	
	gender of students with regard to ability and application to study	125
Figure 4.14	Secondary preservice teacher mean global scores,	
	nonstudious students with regard to gender and ability	126
Figure 4.15	Secondary preservice te icher mean global score,	
	studious students with regard to gender and ability	127
Figure 4.16	Secondary preservice teacher mean global scores,	
	gifted students with regard to gender and application to study	128
Figure 4.17	Secondary preservice teacher mean global scores,	
	average students with regard to gender and application to study	129
Figure 4.18	Female primary preserv ce teacher mean global scores,	
	for all students	132
Figure 4.19	Male primary preservice teacher mean global scores,	
	for all students	133
Figure 4.20	Female secondary preservice teacher mean global scores,	
	for all students	135
Figure 4.21	Male secondary preserv ce teacher mean global scores,	
	for all students	136
Figure 4.22	Female and male secondary preservice teacher	
	mean global scores, for all students	137
Figure 4.23	Secondary preservice teacher mean global scores,	
-	female gifted with regard to application to study	138
Figure 4.24	Secondary preservice teacher mean global score,	
-	male gifted with regard to application to study	139

Figure 4.25	Secondary preservice teacher mean global scores,	
	male average with regard to application to study	140
Figure 4.26	Secondary preservice teacher mean global scores,	
	nonstudious female with regard to ability	141
Figure 4.27	Secondary preservice teacher mean global scores,	
	nonstudious male with regard to ability	142
Figure 4.28	Secondary preservice teacher mean global scores,	
	nonstudious gifted with regard to gender	143
Figure 4.29	Primary preservice teacher mean global scores,	
	universities A, B, C, D and E. All students with regard to ability	146
Figure 4.30	Primary preservice teacher mean global scores,	
	universities A, B, C, D and E. All students with regard to ability	
	and application to study	148
Figure 4.31	Primary preservice teacher mean global scores,	
	universities A, B, C, D and E. Gifted students with regard to	
	application to study	149
Figure 4.32	Primary preservice teacher mean global scores,	
	universities A, B, C, D and E. Average students with regard to	
	application to study	150
Figure 4.33	Secondary preservice teacher mean global scores,	
	universities A, B, C, D and E. All students with regard to	
	application to study	153
Figure 4.34	Primary preservice teacher mean global scores,	
	year of study. All students with regard to application to study	157
Figure 4.35	Primary preservice teac 1er, mean global scores,	
	all years with regard to gender and application to study	158
Figure 4.36	Primary preservice teacher mean global scores,	
	year of study. Female students with regard to application to study.	159
Figure 4.37	Primary preservice teacher mean global scores,	
	year of study. Male stucents with regard to application to study	160
Figure 4.38	Primary preservice teacher mean global scores,	
	year of study. Studious students with regards to gender	161
Figure 4.39	Primary preservice teac ier mean global scores,	
	year of study. Nonstudious students with regard to gender	162

Figure 4.40	Secondary preservice teacher mean global scores,	
	year of study. All studer ts with regard to application to study	165
Figure 4.41	Secondary preservice teacher mean global scores,	
	all years with regard to gender and application to study	166
Figure 4.42	Secondary preservice teacher mean global scores,	
	year of study. Female students with regard to application to study	167
Figure 4.43	Secondary preservice teacher mean global scores,	
	year of study. Male students with regard to application to study	168
Figure 4.44	Secondary preservice teacher mean global scores,	
	year of study. Studious students with regard to gender	169
Figure 4.45	Secondary preservice teacher mean global scores,	
	year of study. Nonstudious students with regards to gender	170

### **A.BSTRACT**

This study obtained new empirical evidence on preservice teacher attitudes towards gifted students and identified some possible influences on these attitudes. Preservice teacher attitudes towards two types of school student, one gifted and the other average, were compared. In addition, an examiration was made as to whether attitudes to each type of student were affected by ability characteristics or by certain other personal attributes, namely academic effort in school and gender. Taking into account this three way interaction of ability, gender and offort and by also considering the gender of the preservice teachers, the university they attended and their year of study, a series of four way analyses of variance was carried out to quantify the significance of results. One thousand four-hundred and seventy preservice teachers were surveyed. This group was made up of 942 primary preservice teachers and 528 secondary preservice teachers from the University of New England, Charles Sturt University, the University of Newcastle, the University of New South Wales ard the University of Wollongong.

Based on the results of this study, it appears that the primary preservice teacher generally considered the average stude at more desirable, with a clear preference for students not to be studious. While the gender of the student was not seen as important, the gender of the preservice teacher was significant. The university the preservice teacher attended was also a significant variable but the year of study appeared to make little difference to primary preservice teacher attitudes. The average student who was not too diligent was the ideal in the eyes of pri nary preservice teachers. At the other end of the attitude spectrum was the hard workin g gifted student.

Secondary preservice teachers appeared to prefer those who did not apply themselves too diligently. Whether students were gifted or average appeared to matter little to secondary preservice teachers, as did the gender of the student. The gender of the secondary preservice teacher did, however, have an effect on the attitudes they held, as did the university the secondary preservice teachers were attending. The year of study secondary preservice teachers were in appeared to have little effect.

The gifted were not simply less desirable because of their intellectual ability. The rejection seemed to result from an interaction with traits that were not acceptable to preservice teachers. All preservice teachers placed a high value on nonstudiousness. The nonstudious were, in the main, seen as more desirable by most respondents. It is noteworthy that the gifted-studious female was at the bottom of both the primary and the secondary scale. A gifted-female's des rability fluctuated enormously according to her application to study.

Those concerned with the education all climate in schools should note that the results of this study challenge some of the popular notions about the valuing of application to study. Those who believe that preservice teachers would prefer the studious student will find little evidence to support such a point of view. Those who feel students who are gifted would be held in high esteem by our fit ture educators may need to re-examine their thinking, as will those who believe that gender itself plays a large part in determining how students are viewed. This study draws the conclusion that being gifted and striving towards academic success at school do not appear to elicit the support one would imagine from our future classroom teachers. The findings of this study must be considered by policy makers if the educational needs of children are to be met and all students are to have the opportunity to realise their full potential.