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Glen Guy*

Richard Hicks†

*Queensland University of Technology

†Queensland University of Technology, Richard.Hicks@bond.edu.au

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**PERSONALITY CHARACTERISTICS OF
HUMAN SERVICES STUDENTS AND THE
SELECTION OF ADULT APPLICANTS FOR
PROFESSIONAL TRAINING**

Glen Guy

School of Social Science

Queensland University of Queensland

Richard Hicks

School of Social Science

Queensland University of Queensland

The School of Social Science at QUT offers an undergraduate degree programme known as the Bachelor of Social Science (Human Services) course. The course is unique in three ways: in its specific structure and subject content, its emphasis on practice and experiential learning and its early use of special selection procedures with adult applicants desiring entry to the course. This article outlines the personality characteristics or "type" of students who were enrolled in the course over two separate intakes, the nature of the course and the selection processes used for adult entry for these students. The type or MBTI profiles for combined cohorts of students showed Intuitive-feeling (-NF-), Sensing-feeling (-SF-) and Extraversion-perceptive (E--P) types to predominate, with the single most common "cell" or type being ENFP. The distributions across each year and for males and females were similar. Since these types most commonly mirror counselling and helping profiles, it seems that the selection procedures adopted, including self-selection, are working.

INTRODUCTION

In 1990, the School of Social Science at the Queensland University of Technology introduced an innovative undergraduate degree program known as a Bachelor of Social Science (Human Services) course. From the beginning the demand for entry to the course was high, particularly from non-school leavers and mature age applicants. Non-school leaver (adult) applicants were selected on the basis of their responses to a questionnaire, and on their group and interview performance.

This article describes briefly the nature of the Human Services course, then presents the data available for the combined 1991 and 1992 student groups in relation to their personal type or style, linking these with the perceived success of the selection procedure.

THE BACHELOR OF SOCIAL SCIENCE (HUMAN SERVICES) DEGREE

The three-year degree programme in human services is aimed at producing professional social welfare workers whose background knowledge and practical communication and helping skills are of a high order.

The Course Content

The unique content and structure involves in-depth preparation in the understanding of human behaviour and interpersonal communication, of the structure of society and of government policy in relation to social conditions, and of human rights and related issues.

Special attention is given to three major areas of study in the course, with human dignity and human rights principles underlying each of these. These areas are "Applied Social Processes", "Australian Society" and "Human Services".

Applied Social Processes involves studies in applied psychology, human development and interpersonal and group dynamics and training in interpersonal, counselling and group work skills.

Australian Society involves in-depth studies of society in Australia, the Australian Welfare State, social policy and strategies for handling group, community and structural change (strongly interdisciplinary).

Human Services involves both (i) completion of four subjects in one of six "options": the options are aged services, child and family services, corrective services, disability services, multicultural

services and youth services, and (ii) completion of specific practice requirements (two 10-week periods of full time supervised fieldwork with an approved agency are required).

The Research: Concept and Aims

Since a counselling and helping role is central to the thrust of the human services degree, it would be expected that personality profiles exhibiting these emphases would predominate in those entering the human services programme. Since the Myers Briggs Type Indicator (MBTI) was given as part of the normal first year programme of study with attention to developing self awareness, results of the MBTI personality profiles were already available from which conclusions could be drawn. This article gives these results, expanding on earlier papers by the authors (Guy & Hicks, 1992; Hicks & Guy, 1993).

Social style is defined as a persuasive and enduring pattern of interpersonal behaviours. The measurement of personality characteristics or "style" or "type" was confined for this reported study to the approach used in the MBTI.

The MBTI has been used extensively since the 1960's. It is now well researched overseas, as attested, for example, in the US *Journal of Psychological Type* (formerly *Research in Psychological Type*), although the instrument had a somewhat controversial beginning (Myers & McCaulley, 1985). The MBTI has generated more Australian research and continuing interest in recent years as demonstrated for example in McGuinness, Izard & McCrossin (1992); and by the commencement of the *Australian Journal of Psychological Type* in 1992.

The MBTI uses a forced choice questionnaire to assess people's major preferences and attitudes in dealing with their world. It was developed by Isabel Myers and Katherine Briggs in the 1940s from the work of Carl Jung on Psychological Types (Myers & McCaulley, 1985).

The applied theory of types may be described briefly as follows:-

1. (E-I) We have a preferred attitude towards dealing with our lives. We may adopt an

attitude which emphasises the **outer world** (referred to as *Extraversion- E*, in the approach in the MBTI) and hence involve ourselves with the people and things in that world. Or we may adopt or prefer an attitude which emphasises the **inner world** (*Introversion- I*) and hence involve ourselves more with concepts, ideas and introspection.

2. (S-N) We have preferred ways of *functioning* to find out information or knowledge. We may prefer to emphasise the use of facts and want concrete, measurable data (*Sensing- S*; meaning being able to "touch" the "hard data", in order to "know" of its truth or existence). Or we may prefer to emphasise awarenesses, insights and seeing relationships between events, going beyond "facts" (*Intuition- I*).
3. (T-F) We also have preferred ways of *functioning* in making our decisions. We may prefer to emphasise a logical, relatively impersonal and objective approach (known as a *Thinking (T)* preference) or alternatively we may prefer a more feeling, valuing, sensitive and emotionally committed approach (*Feeling- F*).
4. (J-P) Along with these three preferences goes a fourth. We have a preferred attitude as to how the outer world should be. Our attitude may be one preferring a planned, orderly world with everything in its place (known as a *Judging (J)* style or attitude). Or we may prefer a world in which we and others are able to be flexible and adaptable without being overly concerned for planning, order and neatness (known as a *Perceptive (P)* style or attitude).
5. We can thus describe people or groups in terms of their preferences in each of these four areas:

. Extraversion vs Introversion (preferred attitude towards the world)

. Sensing vs Intuition (preferred function in gathering information)

. Thinking vs Feeling (preferred function in making decisions) and

Judging vs Perceptive (preferred attitude towards order).

In personality type descriptions, it is possible to identify where a person fits in each of the four "pairings" resulting in 16 different possible types. Thus an individual's or group's personality type, may be described as (say) ENFP, as in the case of many counsellors, or more simply for groups as -NF- where specific attention is drawn to the two identified, highlighted areas. (For more detailed exposition, see Bolton & Bolton, 1984; Hirsch, 1986; Keirsey & Bates, 1984; Myers & Myers, 1980; Myers & McCaulley, 1985).

The authors' specific research reported here identifies the patterns of personality type exhibited in the human services course. Two student intakes (1991 and 1992) completed the MBTI and the results for the total of 213 students are examined.

What kinds of students do we have? Primarily -NF- types, but a range of types exists in the course as indicated in the Tables which follow. Table 1 gives data for the combined 1991 and 1992 intakes into the Bachelor of Social Science (Human Services) course. Selected areas are examined in the subsequent Tables. Tables 2 and 3 examine male-female differences in the type profiles and preferences (attitudes, functions) within the course.

RESULTS

Description of Data in Table 1. Table 1 is set up in the traditional MBTI order, with *functions* in the columns (Sensing with either Thinking (Col. 1) or Feeling (Col. 2); Intuition with either Feeling (Col. 3) or Thinking (Col. 4). *Attitudes* are represented in the rows (Introversion with either Judging (row 1) or Perception (row 2); Extraversion with either Perception (row 3) or Judging (row 4)).

Functions: -NF- and -SF-. In relation to occupations the preferred functions are thought to have more influence on choice and action than the attitudinal preferences (Myers & McCaulley, 1985).

TABLE 1

Distributions of frequencies for each of the 16 personality types for combined 1991-2 student intakes

ISTJ	ISFJ	INFJ	INTJ	Totals
7	22	14	9	52
ISTP	ISFP	INFP	INTP	
5	5	21	9	40
ESTP	ESFP	ENFP	ENTP	
6	22	41	12	81
ESTJ	ESFJ	ENFJ	ENTJ	
8	10	12	10	40
26	59	88	40	213

As summarised in Table 1 and in more detail elsewhere (Guy & Hicks, 1992; Hicks & Guy, 1993), the highest frequency column or row (preferred function) for the total intake was the -NF- column with 88 of 213 students (41.3 percent: as also indicated in Table 3). The next highest column is the -SF- function with 59 of 213 students (27.7 percent).

People with -NF- style preferences are known as "enthusiastic and insightful types" who are "interested in the complexities of communication" and are strongly represented in counselling, teaching and research occupations (Myers & McCaulley, 1985, p. 33).

The -SF- style preferences are associated with "sympathetic and friendly types" who find outlet for their abilities in "practical help and services for people". They are said to be strongly represented in such occupations as those emphasising direct practical helping roles as in nursing, primary or technical/trade teaching, and health fields involving direct patient care (Myers & McCaulley, 1985, p. 33).

The lowest frequency column was the -ST- column with 20 of 213 students (Table 1) or 12.20% (Table 3). People with these style preferences are known as "the practical and matter-of-fact types" whose "main interests focus on facts" and who use "impersonal analysis"

in making judgements (p. 33). People with these preferences are strongly represented in business, accounting, law, economics and in occupations involving machines. It appears consistent that there are relatively few such types in the human services programme though clearly such functions also have a small place at least in the human services, as discussed later in this article.

Attitudes: E--P. As indicated in Tables 1 and 3, an overall 81 out of the 213 students (38.0 percent) fell into the E--P row category. People with these style preferences are referred to as "the adaptable extroverts" and are described as "active, energetic, sociable and always seeking new experiences" (p. 33).

The other three rows were distributed roughly at 20% each, indicating a considerable degree of spread over the four attitudinal categories.

Most Common Single Type: ENFP. The highest frequency cell was for the ENFP preference type with 41 students out of 213 for the total category (19.2%). There were proportionately rather more ENFP types in the 1992 intake (as discussed in Guy & Hicks, 1992)

People with this style preference are described as, "enthusiastic, ... concerned with people and skillful in handling them. Much drawn to counselling, where each person presents a fresh problem to be solved and fresh possibilities to be communicated" (p. 28). They are predicted to be, "ready to help anyone with a problem" (p. 21)

Comment. Clearly the Social Science (Human Services) degree is attracting appropriate students in the preponderance of -NF- and -SF- types, and in the combination with E--P attitudes. One question which we raised was whether the male profiles were different from the female profiles. Tables 2 and 3 give frequencies by sex and by preference types and enable comparisons to be made of the group profiles.

TABLE 2
Combined 1991 & 1992 Type Frequencies by Sex

	FEMALES					MALES				
	Sensing		Intuition			Sensing		Intuition		
	ISTJ	ISFJ	INFJ	INTJ	Tot	ISTJ	ISFJ	INFJ	INTJ	Tot
Introversion with J	4	18	11	5	38	3	4	3	4	14
	ISTP		SFP INFP INTP			ISTP		ISFP INFP INTP		
Introversion with P	3	3	16	7	29	2	2	5	2	11
	ESTP		ESFP ENFP ENT			ESTP		ESFP ENFP ENT		
Extraversion with P	5	18	32	9	64	1	4	9	3	17
	ESTJ		ESFJ ENFJ ENTJ			ESTJ		ESFJ ENFJ ENTJ		
Extraversion with J	8	7	12	10	37	0	3	0	0	3
Totals	20	46	71	31	168	6	13	17	9	45
%	11.9	27.4	42.3	18.4	100	13.3	28.9	37.8	20.0	100

SIMILARITIES AND DIFFERENCES OF THE MALE AND FEMALE PROFILES

With respect to the patterns of obtained frequencies of preference in the ST, SF, NF, NT columns (Table 2), the percentage distributions for males and females are almost identical. A Chi-Square test (Table 2, base) showed no significant difference between the male and female profiles (Chi-Square = 0.306, $df=3$, $p > .05$). The course is attracting the same proportion of females and males in each of the four function preferences.

TABLE 3
Frequencies by Function (SN/TF) and Attitude (EI/JP): 1991-2

	-ST-	-SF-	-NF-	-NT-	Total	I-J	I--P	E--P	E--J	Total
Females	20	46	71	31	168	38	29	64	37	168
Males	6	13	17	9	45	14	11	17	3	45
Total	26	59	88	40	213	52	40	81	40	213
%	12.2	27.7	41.3	18.8	100	24.4	18.8	38.0	18.8	100
	Chi Square = 0.31, <i>df</i> =3 (<i>p</i> >.05, nsd)					Chi Square = 6.48, <i>df</i> =3 (<i>p</i> <.10 but >.05, nsd)				

First Year Human Service Social Science Degree Students (From Table 2: column and row totals for ease of reading)

Similarly, with respect to the patterns of obtained frequencies of preference in the IJ, IP, EP, EJ rows (Table 2), a Chi-Square test (Table 2, base) indicated that no significant difference exists between the male and female distributions (Chi-Square = 6.48, $p .10 > p < .05$). The Chi-Square figure was "approaching significance" in that fewer than ten times in a hundred would the two examined distributions of MBTI profiles have occurred by chance. Overall, however, we need to conclude that there is no difference identified in terms of type among the male and female students enrolled in our courses.

Table 3 gives a more detailed view of the data in Table 2. Examination of Table 3 (right hand set) indicates the largest difference in attraction of students is in the E--J preference, where 22.0% of females (37 out of 168) but only 6.7% of males (6 out of 45) fall in this category or type. The E--J types are the "decisive extraverts" who "are fastmoving, decisive, confident looking, and ... enjoy making things happen". It may be desirable to consider attracting deliberately more of these types, if we want and need in the human services those individuals who will happily take leadership including management roles in due course. There is reported correlation between E--J and the Leadership aspects of the 16 PF (Myers & McCaulley, 1985, p. 32).

It is possible that our selection procedures may have been less kind to these E--J types, not seeking out these orderly, organised, outgoing individuals. On the other hand many of these

individuals are more likely to have sought human resource management or business careers; and to have been decisive about keeping away from the more "adapting, adaptable" requirements clearly required in much of Human Service work, that is, they may not have applied for entry in the first place.

The US MBTI Databank: A Validity Comparison

The overall pattern of style preferences derived from this research is similar to the data for similar occupations drawn from the MBTI data bank. Table 4 presents a frequency percentage pattern for 359 counsellors from the MBTI Manual (Myers & McCaulley, 1985, p. 44), and also gives comparative figures derived from the 1991+1992 student data drawn from this current research. When a Chi-Square test was conducted on the column totals (functions) using frequencies, no significant difference was found (Chi-Square = 16.45, $df = 9$, $p > .05$); that is, the two distributions could be considered to come from the same or similar source. Similarly, the examination of the row totals (preferences-attitudes) revealed no significant difference in the distribution of total frequencies (Chi-Square = 5.11, $df = 9$, $p > .05$).

The degree of similarity is even more striking if we were to present the data only for the 1992 intake (as in Table 5, from Guy & Hicks, 1992). It may be that we are becoming more adept in our selection given the closer matching of the 1992 profiles vis-a-vis the 1991 profiles!

Counselling vis-a-vis Direct Intervention. It should be noted that while counselling will be a large part of the role of many of the human service workers, many will also be responsible for direct intervention in helping people either as their major role or in supplementing the counselling role. That is, we might expect a slightly higher proportion of -SF-'s in our student intake, than might be the case were we training only counsellors. This is precisely what we do have, as can be seen from the tabled data.

TABLE 4

Percentage distributions of a sample of 359 counsellors presented in Myers and McCaulley, 1985, p. 44, compared with 213 Bachelor of Social Science - Human Services students (% given in parenthesis)

Thinking	Sensing Types		Intuitive Types				TOTALS		
	(-ST-)	Feeling (-SF-)	Feeling (-NF-)	Thinking (-NT-)	Thinking (-NT-)	Feeling (-NF-)			
5.8	(3.3)	5.6	(10.3)	7.8	(6.6)	3.1	(4.2)	22.3	(24.4)
1.1	(2.3)	4.5	(2.4)	13.9	(9.9)	2.5	(4.2)	22.0	(18.8)
1.1	(2.8)	3.1*	(10.3)	23.4	(19.2)	3.1	(5.7)	30.7	(38.0)
5.0	(3.8)	6.7	(4.7)	11.4	(5.6)	1.9	(4.7)	25.0	(18.8)
13.0	(12.2)	22.9	(27.7)	56.5	(41.3)	10.6	(18.8)	100.0	(100.0)

* corrected from the printing error in the Myers & McCaulley Table in which 6.1% is listed

TABLE 5

Percentage distributions of a sample of 359 counsellors (McCaulley, 1978, presented in Myers and McCaulley, 1985, p. 44) compared with the 1992 student intake of 91 students into the Bachelor of Social Science (Human Services) course

Thinking	Sensing Types		Intuitive Types				TOTALS		
	(-ST-)	Feeling (-SF-)	Feeling (-NF-)	Thinking (-NT-)	Thinking (-NT-)	Feeling (-NF-)			
5.8	(1.1)	5.6	(8.8)	7.8	(6.6)	3.1	(2.2)	22.3	(18.7)
1.1	(2.2)	4.5	(0.0)	13.9	(11.0)	2.5	(5.5)	22.0	(18.7)
1.1	(3.3)	3.1*	(13.2)	23.4	(25.3)	3.1	(4.4)	30.7	(46.2)
5.0	(5.5)	6.7	(2.2)	11.4	(4.4)	1.9	(4.4)	25.0	(16.5)
13.0	(12.1)	22.9	(24.2)	56.5	(47.3)	10.6	(16.5)	100.0	(100.1)

* corrected from the printing error in the Myers & McCaulley Table in which 6.1% is listed

DISCUSSION OF RESULTS

It would seem that the selection procedures in place in the early 1990's have, in general, selected students with appropriate qualities, or at least not screened in a preponderance of "unsuitable types". The students show strong commitment and this would seem to be related to their overall vocational suitability for the course, as demonstrated by their type preferences. Other factors may be important of course in regard to predicting vocational suitability, including relevance of prior experience in the human services or related areas, and we hope to report on some of these in due course. In relation to the selection procedures and "other factors" taken into account, it is necessary to outline the specially designed processes used with mature age entrants to the course.

Background to Selection Programme

Given the nature of the course and the sensitive nature of the professional work which the students in training and subsequently as graduates would face, it was believed essential that a selection programme be devised that screened into the programme those who seemed to possess the most desirable characteristics, particularly from among the non-school leavers and mature age entry applicants. While a proportion (25%) of places was kept open for school leavers, these were chosen on the basis only of their choice and of school progress, mainly because of the logistics involved otherwise.

The Selection Procedure. Based on more than 15 years experience in offering courses in community welfare and residential and day care, the special selection programme was devised (Daniels, 1990; Guy, 1990). This programme involved a three step procedure. Applicants of "non school-leaver status" were required to apply through the Queensland Tertiary Admissions Centre (QTAC) as for all Queensland degree course entrants. For 1991 and 1992 the ratio of non-school leaver applicants to available places was more than seven to one (listed preferences for the course), or three to one in terms of first preferences only.

All of the non-school leaver applicants were sent a "personal suitability questionnaire" which needed to be returned before the individuals would be considered for the second stage. More than seventy five percent of the applicants returned the completed questionnaire, giving an indication of special interest in the programme. (As expected, rather more of those giving the course first, second or third preference returned their questionnaires).

On the basis of the questionnaire responses some 180 applicants in each year were selected for the second stage, giving a selection ratio at this stage of roughly one person in each two. This second stage involved successful applicants in attending group discussion and interaction sessions (see later discussion) and an interview (personal interview usually with two staff members).

The suitable candidates were then placed in an order and offers made in the usual way through the university administrative system.

The Group Discussion Procedures. The group discussion and interaction sections usually began with three or four groups of 12 candidates meeting together first for introduction to the proceedings, then splitting into their respective groups (co-led by two or three staff members). In their respective groups the members were asked to introduce themselves and then participate in discussion based on previously arranged questions. These questions related to different social or personal issues. Subsequently an "informal" morning or afternoon tea period enabled candidates to mix in a more relaxed manner. An interview followed.

Staff members throughout this period acted as observers and drew conclusions on the attitudes, *actual and potential social skills of the participants* and generally on the suitability or relative unsuitability of the individuals for training in the helping and human services professional arena.

The total times for the participants amounted to 10-15 minutes for introduction to the proceedings, 30-35 minutes for the group introductions and discussions, 20-25 minutes for the

informal discussion and 20-25 minutes for the interviews (that is, around 90 minutes; though in practice, with breaks, the time needed by the participants was somewhat longer).

The participating staff members were briefed and trained beforehand on procedures to follow in ensuring all candidates had an opportunity to participate, and on how to identify the qualities desired for entry to the course. It should be noted that the staff members concerned are trained observers and include staff who teach in the group dynamics and related subject areas of the course. The pre-briefing and training sessions are considered essential for all staff involved.

Comment on Selection Process

The process is time consuming and staff intensive. A similar procedure, nevertheless, has been used for the 1993 and later entries into the Bachelor of Social Science (Human Services) and the new Bachelor of Social Science (Psychology). The latter programme also includes ability testing and completion of preference questionnaires. Reports should be available in due course with respect to the results including validation measures of these (1993 and later) procedures, though increasing pressures on staff members including on research output as well as increased teaching load has meant a curtailment and streamlining of the once extensive process used.

The early results from an examination of the student personality characteristics has indicated that the selection processes "are working", though we do not have the alternative model where students could enter the program simply on choice regardless of their (assessed) suitability or rather lack of it. That is, we have no comparison group for the adult entrants.

Again, the "test" of our selection procedure (that it is valid because there is a preponderance of the "right types") is not the ideal test. We cannot be 100% sure that we actually turned away people with different patterns of preference from those selected or who joined the programme (not having used the MBTI in the selection procedures). However, our approach

aimed at excluding otherwise unsuitable entrants and choosing the most suitable in terms of our understanding of what is required in the helping and human service professions.

Academic Excellence or Personal Style? Both academic excellence or ability to cope with the course, and suitable personal characteristics are requirements for entrants. We have been asked how we ascertain that we are choosing academically excellent (or potentially excellent) students, as well as those with appropriate social skills and preferences. The strong competition for entry, given the restricted quota that applies, has already been mentioned earlier in this article, and ensures to a considerable degree high quality applicants.

However, the major point of concern to the authors and our colleagues is that the human service students, as well as having the ability to handle the academic aspects of the programme, must *also* have preferences for the kind of work they will be entering at a later stage. Often interests, preferences and values are omitted from equations on selection or in relation to performance. Yet such interests, values and preferences are a key element in bringing about personal work satisfaction, positive morale in the work place and effectiveness or productivity (c.f., Bolton & Bolton, 1984; Hirsch, 1986; and in areas other than the MBTI but with a similar philosophy: Hicks, 1992; Kable, 1988; Kable, Hicks & Smith, 1990).

CONCLUSIONS

From examination of the patterns which have emerged from our data, the following conclusions can be drawn:

- . the overall type preference pattern for human service students shows -NF- predominating but supported by -SF- and E--P preferences;
- . this pattern is similar to the pattern which is predicted for the human service/counselling profession based on previous research;

- . this finding can be interpreted as support for the selection procedures used and/or as a reflection of the type of student drawn to this course.

Further Studies. A number of questions need answering concerning the mix of students we have and the learning environments that may be best for our students. Further studies will investigate:

- . the personality type and other differences between younger (school-leaver) and older (more mature or experienced) students in our programme;
- . the patterns of results academically and in practical skills of all students but especially those who are not in the majority patternings, particularly those with -ST- or I--J patterns;
- . the relationship of the types to the choices of option made by students (e.g., aged services or corrective services etcetera);
- . patterns of these MBTI preference styles and other qualities such as values, critical thinking ability, earlier education progress and human service experience with progress in and satisfaction with the human services programme.

In particular, the wider, longitudinal research plan is aimed at monitoring each year the patterns of personal characteristics of students entering the course and relating these results to student drop-out and success rates, student choice of area of specialisation, subsequent preference for and placement in specified welfare and social agency positions and different types of learning experience, including group work and adventure learning experience provided in the course.

This current article has reported part of our work to date, indicating the pattern of type preferences in an applied academic area and also reporting on the selection process that has

been used at QUT. The authors would be pleased to hear of similar work of others in Australia and elsewhere, and to collaborate in the sharing of data and research.

REFERENCES

- Bolton, R., & Bolton, D. G. (1984). *Social style - management style: Developing productive work relationships*. NY: American Management Associations.
- Guy, G., & Hicks, R. (1992). *Personal characteristics of human service professionals in training and the implications for practice*. Joint paper presented at the Annual Conference of the Australian Psychological Society, Sept-Oct 1992, University of New England, Armidale.
- Hicks, R. E. (1992). Individual differences: abilities, interests and performance: Chapter 3. In Vecchio, R., Hearn, G., & Southey, G. (Eds.). *Organisational behaviour: Life at work in Australia*. Sydney: Harcourt Brace Jovanovich.
- Hicks, R., & Guy, G. (1993). Distribution of psychological type over a two year period in an Australian human services degree programme. *Australian Journal of Psychological Type*, 2, 20-22.
- Hirsch, S. K. (1986). *Using the Myers Briggs type indicator in organisations: A resource book*. Palo Alto: Consulting Psychologists Press.
- McGuinness, M., Izard, J., & McCrossin, P. (1992). *Myers-Briggs type indicator: Australian perspectives*. Hawthorn, Victoria: ACER.
- Kable, J. C. (1988). *People, preferences and performance*. Brisbane: Wiley
- Kable, J. C., Hicks, R. E., & Smith, N. I. (1990). *Decision preference analysis the users' guide (2nd ed.)*. Sydney: NIS Associates.
- Keirsey, D., & Bates, M. (1984). *Please understand me*. Palo Alto, Ca.: Gnosology Books.
- Myers, I. B., & Myers, P. B. (1980). *Gifts differing*. Palo Alto, Ca.: Consulting Psychologists Press.
- Myers, I. B., & McCaulley, M. H. (1985). *A guide to the development and use of the Myers-Briggs type indicator*. Palo Alto, Ca.: Consulting Psychologists Press.