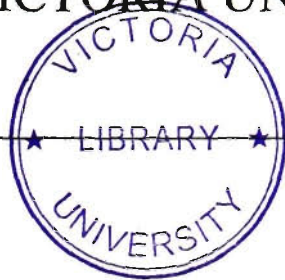# THE PROCESS AND DIVERSITY OF MENTORING

AT VICTORIA UNIVERSITY

A THESIS SUBMITTED FOR THE DEGREE OF

MASTER OF SCIENCE

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Abstract

This project analysed the development of a selection of international and national mentoring programmes in higher education institutions and specifically at Victoria University. Based on the analysis of successful international and national mentoring programmes, the performance of past Victoria University mentoring programmes and research on current mentoring programmes at the University, this thesis has developed core principles of a standardised mentoring programme. Research was conducted through questionnaire surveys and in-depth interviews on current and past mentoring programmes at Victoria University and the data presented in tabular, scalar and graphical formats. Research results revealed that ensuring the sustainability of mentoring programmes requires great determination, resourcing and commitment as past mentoring programmes had failed because they were not embedded in academic courses. This study provides several insights and recommendations on the critical components of a standardised mentoring programme and could be used as the basis for the development of an effective and sustainable mentoring programme.

Declaration of Authorship

I hereby declare that all of the work contained within this thesis was carried out at the Faculty of Science, Engineering and Technology, Victoria University during my candidature as a Master of Science student. This thesis contains no material, which has been submitted for examination in any other course or accepted for the award for any other Degree or Diploma in any University. To the best of my knowledge and belief, it contains no material previously published or written by any other person, except where due reference is given.
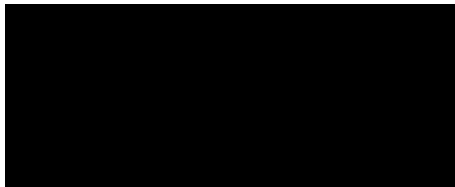
Jenny Seymour

December, 2004

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Introduction

1. Introduction

This study aims to assess a selection of international and local mentoring programmes and evaluate the reasons for their failures and successes. In particular, it involves an analysis of past and ongoing mentoring programmes at Victoria University in order to provide a cohesive framework of core elements for a standardised mentoring programme.

The impetus for this study stems from years of personal involvement in mentoring programmes whilst as a student at Victoria University in 1987 and personal experience prior to student life. During these years, I had been an organiser and a mentor of several informal mentoring programmes; mentored children from the Greek community at Mornington Peninsula for five years, 1982-87; organised and mentored first-year undergraduates at Victoria University, 1988-89, and initiated a mentoring programme at the Faculty of Business and Law, Victoria University.

These combined personal experiences have led to an increased interest in mentoring as an aid for learning and development and in researching the difficulties associated in sustaining such programmes. In addition, I was interested in developing a standardised mentoring programme and identifying its core elements for Victoria University.

1.1 Nature of the Problem

Many forms of mentoring now exist as its range and concept have expanded. In ancient times, from its origins in *Odyssey*, mentoring described a one-to-one relationship between a mentor who is an older and more experienced person counselling and guiding the mentee who is usually a younger person within a specific field and/or on broader life issues. Now, mentoring has broadened to encompass group mentoring with the age gap between mentors and mentees being narrower than as before such as the University of Queensland's PASS mentoring scheme, Victoria University's Circles programme and US's Supplemental Instruction (SI) scheme. In higher education, there are many different models of mentoring; student to student (senior undergraduates to junior undergraduates or graduate to undergraduate), faculty member to student and industry professional to student (Marra and Pangborn, 2001). Although there is currently no single definition of mentoring, most researchers agree that mentoring encompasses teaching, professional and personal guidance, sponsorship, role modelling and socialisation (Aagaard and Hauer, 2003). In a research on academic mentoring, it was found that "new faculty members who were mentored felt more connected to their work environment than their non-mentored peers" and had a greater sense of ownership of their departments (Schrodt et al, 2003, p26).

In its various forms, mentoring is now accepted in many countries of the world, including the UK, Canada, US, China and Australia, as a strategy for enhancing academic, social, personal and career outcomes for the mentee (Marra and Pangborn, 2001; Schrodt et al, 2003; Aagaard and Hauer, 2003). Muldoon and Godwin (2003) stated that mentoring as a support programme was aimed at increasing success and

retention rates of tertiary students particularly in the transitional year between school and university. Anastassiou and Hamel-Green (2000, p4) explained that the increasing popularity of mentoring programmes in Australia could be attributed to "unprecedented government funding cuts in the past few years". In a climate of limited resources and course outcome accountability, mentoring programmes have been found to be a cost-effective means of providing academic support and guidance in the education sector as they rely on volunteer or sessionally-paid students and could potentially reach large proportions of the student population (Anastassiou and Hamel-Green, 2000). Such programmes have been designed to enhance student learning and increase retention rates without creating an excessive additional demand on traditional resources.

Victoria University has various examples of mentoring in operation but no universal or standard system. Past formal mentoring programmes were conducted due to funds from the University's Personalised Access Policy (PAS) (Best, 1999). However on most cases, programmes have been short-lived due to student and staff time constraints, logistical time-tabling problems, lack of on-going support for student and staff as well as mentoring being perceived as 'add-on' (Student Mentoring Working Party, 2002).

Despite the lack of sustainability in past mentoring programmes conducted, the University has recognised the value of mentoring, particularly peer mentoring especially for its newly expanded dual sector format with more than 50,000 students spread over eleven campuses. Statistics show that Victoria University has the largest proportion of students (30%) from non-English speaking backgrounds in the state of

Victoria (Victoria University Media and Marketing Branch, 2002). More than 35% of students born in Australia come from non-English speaking parents with different linguistic, cultural and educational backgrounds. Many students from overseas come with similar difficulties of background and are equally unprepared for study in Australia. Mentoring has been shown to be one way to provide critical support for these students.

This project will identify and evaluate the forms of mentoring that have been and are being used within Victoria University. It will propose a more standardised approach to student support in keeping with the Personalised Access and Study (PAS) policy (Teaching and Learning Development Team, 1997) and its present iteration and will examine the major issues in the implementation of mentoring processes. The materials gathered for this project are from this and other universities throughout Australia and overseas. In addition, the project will also consider mentoring programmes provided for academic staff. Mentoring, as an integrated element of the educational process at Victoria University, can prove to be invaluable to all those persons involved and to the University as part of its overall policy.

1.1.1 Research Question

What are the core elements of a standardised mentoring programme?

1.1.2 Subsidiary Question

What impact did the programmes have on issues pertaining to retention rates and progress, multicultural and socio-economic diversity?

1.2   Aims of the Study

- Review literature on mentoring, both nationally and internationally.

- Identify and evaluate current mentoring practices where they exist in the Higher Education sector at Victoria University.

- Identify policy, processes and resources for provision of mentoring.

- Develop a proposal for implementation of the core elements/components in the Higher Education sector at Victoria University.

1.3   Specific Aims

To identify and develop the core components of a standardised approach to mentoring programmes for Victoria University.

1.4   Outline of the Thesis

This thesis comprises the following:

Stage 1- Literature review on mentoring in international and Australian environments

Relevant literature on mentoring both nationally and internationally was collected and reviewed. CD-ROMs were accessed, along with inter-library loans, internet searches, electronic list-servers and personal contacts. The data collected provided an overview of mentoring practices both nationally and internationally.

Stage 2- Survey of Higher Education Institutions and Evaluation of existing programmes

Evaluation was designed to provide information on whether programmes have achieved their objectives (where such had been defined) and if the needs of the target students had been met. People interviewed included the designers and/or coordinators, those involved in the selection/screening and training of participants, and mentees and mentors who have participated or are currently participating in the programmes.

The questions were developed to elicit each participant's understanding of the programme, how it operated from their perspective, the outcomes of which they were aware, their feelings about the programme, any problems they had encountered, and their suggestions and advice to others about mentoring programmes. Ethical issues such as the privacy of participants were addressed, and the confidentiality and anonymity of data generated were maintained.

Stage 3 - Development of a compendium of successful approaches

As a consequence of the first two stages, a representative sample of successful approaches was documented. This information was used to develop a 'best practice' model for mentoring in Higher Education Institutions, particularly Victoria University. Evaluation of Victoria University programmes was based on MacCallum and Beltman (1999) and Rafferty (1997) and on internal assessments already completed (Anastassiou and Hamel-Green, 2000).

Stage 4 - A proposal to develop a cohesive mentoring framework for Victoria University

Given the circumstances of the many needs which students encounter in a university environment, mentoring is a vital component which should be included and accepted by all persons involved in the learning processes. Based on the analysis of research results and the literature review, this project sought to develop a core structure of a cohesive mentoring framework which would enhance student learning as well as staff development at the standard required by the University.

1.5   Method of Research

The research used predominantly qualitative methodology, including a review of relevant literature from Australia and overseas and in-depth evaluation of pre-existing programmes at Victoria University to develop a set of principles to inform successful development of a more standardised form for universal mentoring at Victoria University.

Failure to document and record the mechanisms and performance of existing and past mentoring schemes has meant that the methodology used in this project was mainly through qualitative data collection. Members of current staff of Victoria University who have had involvement in such programmes were interviewed to determine what their experiences have been with mentoring students from before the establishment of Victoria University. Follow-up questions were posed using standardised questionnaires to assess the success of mentoring programmes and reasons why some were discontinued.

1.6   Working definition of mentoring

The following definition of mentoring, which was developed by the author (and adapted mainly from the work of Jacobi, 1991), is used throughout the project:

> An intentional, nurturing, supportive and mutually beneficial relationship that could include elements of professional or academic development, emotional and psychological support and/or role modelling.

Chapter Two

Literature Review

2.1   History of Mentoring

Mentoring has its origins in Greek mythology. In Homer's *Odyssey*, Mentor was the

trusted confidant of Telemachus, son of Odysseus. Athena, goddess of wisdom would

also speak to Telemachus through Mentor when Telemachus was in difficulties during

the search for his father Odysseus (Hornblower and Spawforth, 1996).

"Further interpretations state that the appellative use of the name Mentor

admits of the etymological rendering 'adviser'. From the root, mentor means

to remember, think, counsel, etc; possibly it may have been invented or chosen

by the poet as appropriately significant. In Odysseus, Mentor is the name of

an Ithacan noble whose disguise the goddess Athena subsequently assumed in

order to continue to act as the guide and adviser of the young Telemachus.

Allusively, a mentor is one who fulfills the office which the supposed Mentor

fulfilled towards Telemachus as an experienced and trusted counsellor" (The

Oxford English Dictionary, 1989).

From another study of word origins, Earle (1993) further elaborated that according to

Homer's *Odyssey*, when Odysseus left Ithaca to participate in the siege and capture of

Troy, he entrusted the care of his wife, Penelope and his infant son, Telemachus, to

his great friend *Mentor*. Homer does not develop the character of a loyal friend to an

extent, but twenty years later, it is reported that the young Telemachus, started out to

find his father, accompanied, as he thought, by his old tutor. Actually, however, it is

at this point that the form of *Mentor* had been assumed by Athena, goddess of wisdom, who gave the young man the benefit of her counsel and advice. The story was taken by the French author, Fénelon, and Archbishop of Cambiai, as a basis for the political novel, *Télémaque*, which he published in 1699. In this he assigned the role of adviser and counsellor of the young hero entirely to the aged tutor, *Mentor*, and made him second only in importance to the chief character. The book received great acclaim with Voltaire calling it "a Greek poem in French prose". From the wisdom and counsel displayed by this fictional companion, *mentor* became one of our common words for any person who serves as a counsellor to another (Earle, 1993).

The contemporary concept and use of mentoring have been adopted from the character and role of the mythical character Mentor. The term 'mentor' or 'mentoring' may be used more widely now than the role of adviser and guide but essentially it includes the provision of support, counseling and experience to another individual.

2.2 Definition of Mentoring

Despite its long history, mentoring is a term that has evolved with varied use and application. The definition is largely dependent on the programme objectives, the culture of the organisation and the skills of the mentor. There are many terms used to replace mentor/mentee (MacCallum and Beltman, 1999; Schneider, 1999), for example:

Mentor: volunteer, adviser, teacher, counsellor, role model, tutor, coach, parent, friend

Mentee: mentoree, protégé, participant, student or young person.

However basic elements of mentoring relationships can be identified in order to provide a common ground on the concept of mentoring. In Table 2.1, which provides a list of several definitions of mentoring by different researchers, it can be seen that the central quality of mentoring is that it is intentional, nurturing, insightful and supportive.

Table 2.1: A variety of definitions used to describe mentoring.

> "...a deliberate pairing of a more skilled or experienced person with a lesser skilled or experienced one, with the agreed upon goal of having the lesser skilled person grow and develop specific competencies" (Watts, 1996)

> "The term generally refers to a relationship established between a young person and one who is older that lasts over time and is focused primarily on the developmental needs of the younger individual" (Guetzloe, 1997).

> "Today, a mentor is any caring, mature person who forms a one-on-one relationship with someone in need. A mentor is defined as one who listens, cares for, gives advice to, and shares information and life/career experiences with another, especially a young person requiring assistance" (Dondero, 1997).

> "...a mentor functions as a guide and supporter, establishing trust and demonstrating empathic understanding while at the same time, introducing new and often contradictory ideas and helping the protégé develop a positive sense of the future" (Pascarelli, 1998).

2.2.1 Mentoring Functions and Roles

Most researchers defined mentoring according to the functions provided by the mentors to the mentees. Jacobi (1991) pointed out that these functions and roles could be categorised typically into three distinct functions or roles. In the university context Marra and Pangborn (2001, p38) defined mentoring to constitute providing a "framework for cognitive apprenticeship", motivating students to pursue lifelong learning goals and to provide positive role models for personal growth. The first function referred to the mentoring function of teaching mentees' cognitive skills including how to prepare assignments, where to find information and other resources, which are similar to training apprentices in their vocations. The second distinct function of mentoring programmes covered a counselling dimension. Here the mentor offered the emotional support and friendship found in a positive relationship. Various terms have been used to categorise the above two broad functions; career, instrumental and vocational for the first function whilst psychosocial, pastoral, intrinsic and counselling encompassed the second function. The third function of role modelling has not been clearly defined as a discrete component of mentoring. Kram (1985) as cited in Jacobi (1991) characterised role modelling as a psychosocial function whilst Marra and Pangborn (2001) and Aagaard and Hauer (2000) separated role modelling from advisory or counselling functions. Thus in the absence of conclusive evidence, it would be appropriate to consider role modelling as a separate function of mentoring.

2.2.2 Characteristics of mentoring relationships

Age difference between mentors and mentees did not figure as an important issue with mentoring programmes in higher education institutions. Marra and Pangborn (2001)

included same year student mentors (peers) as well as senior students and faculty staff in the mentoring programmes at the Pennsylvania State University. Experience and expertise appeared to be more important criteria in assessing mentors rather than age. However in Eastern cultures, where age is a measure of accepted authority, an older mentor would probably be desired.

The duration of mentoring programmes also varied considerably. The University of New England, Faculty of Science Mentor programme has continued to operate on a one year duration (Muldoon and Godwin, 2003). The College of Engineering at Pennsylvania State University has developed a different approach to mentoring at each year of undergraduate study (Marra and Pangborn, 2001); thus expanding the duration of the mentoring experience of its undergraduates but with probably different mentors at each level. The Faculty of Arts Learning Circles programme at Victoria University, Australia, extends over only a semester for each cohort (Hamel-Green, 2004). Levinson et al (1978) as cited in Jacobi (1991), described the typical mentoring relationship as lasting between two to ten years. In a mentoring relationship for new academic lecturers, relationships can last from the probationary period through the whole developmental process of being a lecturer, or, indeed, a lifetime (Bullard and Felder, 2003).

In terms of intensity Jacobi (1991) pointed out that some categorised a mentoring relationship at "the highest end of a continuum of helping relationships (e.g. DeCoster and Brown, 1982; Hunt and Michael, 1983; Kram, 1985; all as cited in Jacobi, 1991) and as the most intense and paternalistic type of relationship.

Scisney-Matlock and Matlock (2001) argued for the role of mentoring to promote understanding of diversity in undergraduate students. Higher education literature is divided about importance of matching students with mentors of the same gender or ethnicity (Jacobi, 1991). Some emphasised that cross-gender or cross-race relationships can be effective (eg Moses 1989, Pounds 1987; in Jacobi 1991) while others preferred to match students with a mentor of their own gender or ethnic background (eg Meznek et al, 1989, Oestereichen, 1987; in Jacobi 1991). Some programmes specifically addressed gender issues, eg Pennsylvania State University organised the Women in Engineering Programme to provide a forum for academic, social and career-related issues (Marra and Pangborn, 2001). Research on medical students at the University of California, San Francisco, did not find that female students were less likely to have mentors. It was reported that 44% of their mentors were female whereas women comprised only 24% of the university faculty (Aagaard and Hauer, 2003).

Lastly, psychological and educational literature described the intangible rewards of mentoring as generativity, which means " reaching out beyond one's own immediate concerns to embrace the welfare of society and of future generations. Generativity involved an element of selflessness." (Zanden, 1978). Therefore not only do mentees obtain both intangible and tangible benefits from the programmes, but mentors too derived tangible benefits, such as recognition for their efforts through certificates and rewards and intangible benefits such as increased confidence and management skills.

2.2.3 A common ground of understanding

Although based on the earlier analysis, there is a wide variety of mentoring functions and roles as well as various characteristics of a mentoring relationship, there are several basic elements of a mentoring relationship (Jacobi, 1991).

1. Mentoring relationships are helping relationships that are focused at achieving a particular goal.

2. Mentoring includes any or all of the following components

   (a) career/professional/academic development

   (b) emotional and psychological support

   (c) role modelling

3. Mentoring relationships benefit both the mentor and mentee

4. Mentoring relationships are personal

5. Compared to their mentees, mentors are more experienced and have greater knowledge on a particular subject or organisation.

Based on the analysis on the different definitions of mentoring and the above summary, a working definition of mentoring was derived and applied throughout the whole project (refer to glossary on p8).

2.3 The Mentoring Rationale

2.3.1 Mentoring for students

Mentoring is essential for many students entering university where they have to adapt to a new social and academic environment and require skills in higher levels of education. Students who lack self-esteem and the ability to communicate find this situation daunting, resulting in an increase in student failures and withdrawals. An investigation conducted by McInnis et al, (1995) found that many students had

negative views of teaching, courses and university life. In this study, less than half of those surveyed thought that the teaching staff were good at explaining things and only 41% thought there was a positive attitude towards learning among their fellow students. Well over a quarter of the students worked in isolation from their peers and were not interested in extra-curricular activities, whilst around 30% of students were negative enough during the first semester to seriously consider deferring.

Anastassiou and Hamel-Green, (2000) also reported a range of outcomes from affected students, including;

Non-completion of courses for reasons of social isolation;

Lack of confidence;

Lack of awareness of academic, financial and social support options;

Adapting to new learning environments;

Lack of self-esteem or sense of well-being in the first year of studies;

Lack of support networks;

Communication issues between Faculties and students.

The ability of individuals to overcome these issues was directly affected by the range and level of the services and amenities available to support and facilitate learning and skill acquisition (Anderson, 1995). Despite this, universities are under increasing pressure to devise a range of strategies for reducing their expenditure and using their resources efficiently, whilst also reducing non-completion rates as governments threaten to use this criterion for funding (Anastassiou and Hamel-Green, 2000). Therefore, peer mentoring is a particularly viable strategy in constrained economic

environments where funding for full-time professional support is not always an option.

According to Rafferty (1997) "Mentoring programmes have been found to be a cost-effective means of providing academic support and ensuring that developmental experiences are available equally to all students, especially those who are in the first year of their course". Similar statements have also been provided by McInnis et al, (2000), Anastassiou and Hamel-Green, (2000) and Guetzloe, (1997).

For example, second year students can play a very important role in mentoring first year students as they can remember the same subjects taken in their own first year and their own concerns. This applied also to final year students who are preparing to enter a career after completing their final year of a university degree. For example, in the final year, students tended to form study groups where they exchanged information and discussed the subject concerned. This motivated and kept the students focused on their goals to graduate successfully and become part of the workforce. A potential development of continued mentoring for them from alumni and/or workforce professionals should be explored as in Marra and Pangborn (2001) and Schneider (1999).

Thus mentoring programmes were designed to assist students in their transition into a rapidly changing educational environment, ensuring that talents and skills are identified and fostered for the benefit of the individual and the organisation. Mentoring programmes were a means of providing regular individual attention to a student or group of students, which was not always possible in the regular classroom.

Besides addressing transition-related issues, mentoring was seen as a technique to develop a student-centred approach towards learning with the mentor engaging the student in developmental activities which encouraged learning. Attention was then focused in making students responsible for their own learning and teaching them to grow in their capacities for "assimilating, developing, applying and organising knowledge" (Melander, 2001). A mentor plays different roles at the different stages of the student's learning development process. At the early stage a mentor acts as a connector or motivator whereby the mentor introduces students to sources of knowledge. As the student becomes familiar with learning models the mentor begins to act as a coach or tutor. With more mature learners, mentors have to engage the student in 'dialoguing, reflecting and consulting roles" (Melander, 2001).

2.3.2 Mentoring for university staff

Socialisation for new faculty members is a frustrating and stressful experience as they tend to feel isolated. Mentoring relationships are seen as a resource to overcome the challenge of assimilating and developing a sense of belonging in the university and may be incorporated as part of the probationary process. In an attempt to support women academics at Victoria University by way of encouraging equity and diversity, Sara Carmel, a visiting professor who presented at the Gender Equity Forum, (26/11/2002), agreed that mentoring between a professor and two or three young women academics can be one cost-effective way to enhance learning and training in a university. Research on mentoring has revealed that individuals who had mentors received more promotions, have higher incomes and were more satisfied with their careers than those who did not participate in a mentor-mentee relationship (Schrodt et al, 2003). In higher education institutions, mentors acted as sponsors, coaches and

protectors whilst psychosocially they acted as counsellors, motivators and friends. Research on faculty members from the National Communication Association, Seattle, revealed that protégés felt more connected to their work environment than their non-mentored peers. In addition, mentoring benefited both the institution and the protégé (Schrodt et al, 2003).

Besides enhancing the socialisation processes of college faculty members, mentoring programmes have been proposed as a resource to effectively promote scholarship. This approach emphasised a paradigm shift from focusing on the research output to the person and the research process (Mallard, 2002, p59). This new emphasis considered the importance of collegiality to develop the "soul of scholarship" (Mallard, 2002, p65). At the establishment stage of scholar development senior faculty members served as excellent mentors for new academic members to find the best scholarly fit for themselves. Some new members had work ready for top journals and conferences whilst others preferred to submit their work to regional or state conferences first. At the advancement stage of scholar development, faculty members needed help in focusing on new research projects in order not to lose the momentum they had when working on their dissertations. Even faculty members at the maturation and withdrawal stages benefited from scholar mentoring programmes as they felt energised from the synergy created when paired with a young and eager new faculty member. Seasoned faculty members valued the chance to train, guide, influence or direct others (Mallard, 2002, p64).

2.4 Expected Outcomes of Mentoring Programmes

Current literature lacks much evidence of specific outcomes of mentoring programmes and designs used. Those that do, reported programme outcomes that were difficult to compare as many of the reports in the literature failed to describe the programme design and methods used for evaluation. MacCallum and Beltman (1999) argued that many programmes also lacked control groups, had short time-frames and used measures that did not necessarily reflect the purpose of the programme, which prevented the documentation of specific educational outcomes for mentored students. Despite this, there were many reports about the benefits of mentoring programmes, including increased retention rates (Bein, 1999; Pascarelli, 1998; Shumer, 1994), enhanced self confidence (Pascarelli, 1998), improvements in attendance and grades (Bein, 1999; Shumer, 1994; Rogers and Taylor, 1997), increased feelings of well being and self-worth (Rogers and Taylor, 1997), improved peer and family relationships (Tierny et al, 1995). In particular, mentoring programmes provided a means to overcome students' general sense of disability which is a result of changes in university culture, environment and educational process. Disability here encompasses not only physical or mental disabilities but also cultural or ethnic disabilities, language or environmental disadvantages and fears or insecurities (Seymour and McGill, 2003).

In mentoring programmes for faculty staff, benefits from the mentoring relationships included being able to experience demonstrations of good teaching practices and implementing them in mentees' classes and finding someone who sincerely cares about their personal and career development (Bullard and Felder, 2003). However further research is needed to analyse the impact of faculty staff mentoring on

academic socialisation experiences (Schrodt et al, 2003). The research should aim at finding out how mentoring could be organised for staff in higher education settings and the differences between formal and informal mentoring programmes as the latter has been claimed by some researchers as being more beneficial to newcomers (Noe, 1998 as cited in Schrodt et al, 2003). The benefits of mentoring programmes are summarised in Table 2.2.

Table 2.2: Benefits of mentoring programmes to mentors, mentees and the organisation.

Benefits to Mentors	Benefits to Mentees	Benefits to the organisation
Increase in confidence	Understanding the organisation	Increased productivity
Personal satisfaction	Encouragement	Lower attrition
Acquire management skills	Assistance	Support for 'at risk' students
Develop learning associations	Career planning	Opportunity for feedback
Develop leadership skills	Personal growth	Increased motivation
Revitalised interest in work	Improved study skills	Reduced turnover
Feeling of self worth	Improved self-confidence	Retention of talented students
Opportunity to form friendships	Increasing networks	Enhanced communication
Job satisfaction	Increased understanding of study area	Cost-effective training
Enhanced communication skills	Access to role models	Encourage group work
Enhanced listening skills	Greater knowledge of resources	Breakdown of cultural barriers
Improved organisational skills	Peer support	Effective learning community
Improved peer relationships	Enhanced communication skills	Encouraging creativity
Understanding barriers to learning	Enhanced listening skills	Increased retention rates
Promotes problem solving skills	Improved organisational skills	Improvements in attendance
Reinforces basic knowledge	Improved peer relationships	Enhanced flow of information
Improved employability	Adaptation to new environment	Improved advocacy

Source: (Bein, 1999; Anastassiou et al., 1998; Pascarelli, 1998; Shumer, 1994; STAR Peer Tutoring, 1994).

2.5 Models of mentoring

Mentoring has occurred in a variety of contexts and for a variety of purposes. Some programmes have been designed to develop specific discipline-related knowledge or skills, while others were designed to assist the mentee to develop career aspirations or general life skills and social support. Such different purposes may determine the most appropriate characteristics of the mentor and the programme organisation or structure (MacCallum and Beltman, 1999).

Three broad categories of mentoring programmes are conducted at higher education institutions: peer, student and staff mentoring programmes. Other categories include programmes for mentees from outside the university by mentors from the university but this research is concerned with mentoring programmes conducted for Victoria University students and staff. Figure 2.1 outlines the different levels of mentors and mentees involved in university mentoring programmes. Peer mentoring is defined as mentors and mentees consisting of university students ranging from foundation studies students, undergraduates to postgraduates. Therefore even if the mentors and mentees are at different levels of their studies, e.g. a second-year undergraduate student mentoring a first-year undergraduate, this would be termed as peer mentoring in the above definition. On the other hand, staff mentoring programmes consist of mentees and mentors who are staff of the university. In programmes in which the mentor is a staff member such as a university lecturer and the mentee a student, this will be termed as student mentoring programmes. Student mentoring programmes also encompass situations where the mentor is a professional from the industry and the mentee, a student from the university.

Besides defining the different models of mentoring programmes conducted, key dimensions of mentoring schemes include whether they ran on an individual or group basis (McInnis et al, 2000), the nature of the mentor/mentee relationship and also whether they were structured or informal processes (Watts, 1996). Traditionally, mentoring is a one-on-one process and many have argued that this arrangement is more successful than group mentoring (MacCallum and Beltman, 1999 and Palfreyman et al, 2001). The former is a more pervasive mode adopted in academic staff mentoring. In this arrangement, the mentor and mentee collaborate on a single course in a given semester by either teaching parallel sessions or team-teaching in a single session and working together to plan the syllabus, assignment schedules, lectures, assignments and tests (Bullard, 2003).

For student peer mentoring, the concept has expanded over time to include situations in which both one-on-one and group mentoring are significant, and unsurprisingly some mentoring programmes used a combination of both methods (Schneider, 1999). The Faculty Mentor Programme at the University of New England combined the best features of both group work and one-to-one strategies (Muldoon and Godwin, 2003). Despite these differences, all agreed that the most successful mentoring programmes were those that are well planned rather than unstructured and informal and 'are placed in the wider context of the institutions mission and goals' (Wunsch, 1994).

Figure 2.1: Description of different levels of mentoring programmes in higher education institutions

Legend
FS   – Foundation Studies students
P1 – P4   – First-year to Fourth-year undergraduates
PG1 – PG3 – First-year to Third-year postgraduates
LA & LB   – Lecturers Levels A & B
SL   – Senior Lecturer
AP   – Associate Professor
P   – Professor
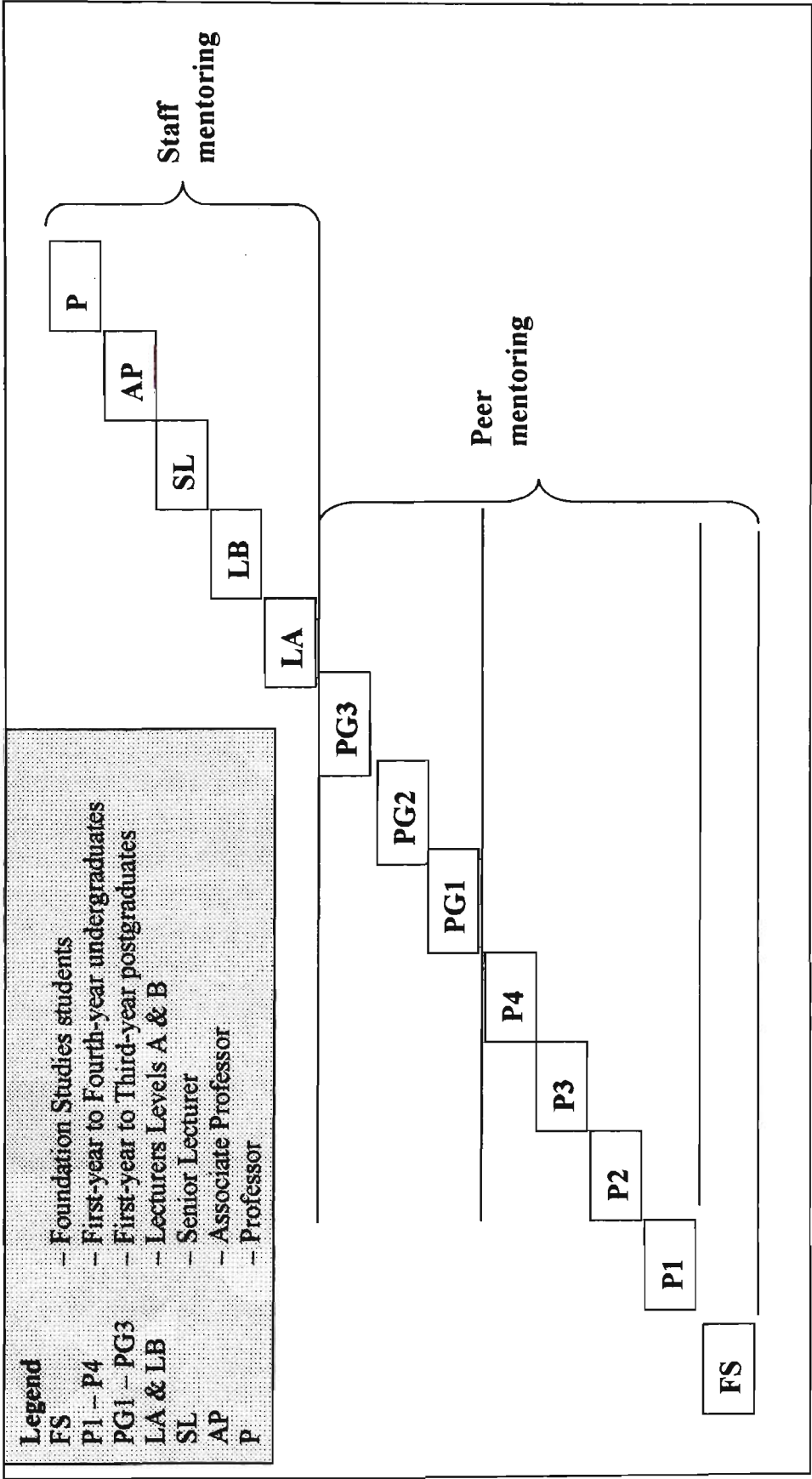
One contentious issue of student mentoring programmes at higher education institutions has been generic versus discipline-specific intervention programmes. Muldoon and Godwin (2003) highlighted that there was growing recognition that implementing discipline or context-specific learning support programmes early in a tertiary course could have positive learning outcomes. As a result most mentoring programmes in higher institutions aimed at specific professions and disciplines rather than operated as a universal programme spanning across the whole university. In addition, mentoring programmes which focused on specific subjects or having a more academic emphasis tended to run for longer periods than those with a pastoral/social focus (Best, 1999). However the Student Mentoring Working Group at Victoria University pointed out that both pastoral and academic issues must be incorporated in a mentoring programme in order to ensure its success (Student Mentoring Working Party, 2002).

However whilst content-specific mentoring programmes have seemed to gain significant support, there is much debate over whether mentoring skills were generic or context-specific (Jowett and Stead, 1994). Though mentoring was always practised within a specific context, it required skills beyond expertise relating to the profession. Mentors needed skills of listening and assertiveness as well as administrative and organisational skills. Leeds Metropolitan University has adopted a generic mentor training programme in line with their hypothesis that the skills and knowledge of mentoring were generic (Jowett and Stead, 1994). Marra and Pangborn (2001) stressed the importance of interpersonal skills such as attentive listening, assertiveness, feedback methods and positive reinforcement techniques as critical in good mentoring.

Recently, a new dimension was added to the structure of mentoring programmes, with the introduction of e-mentoring/telementoring/virtual mentoring, which is increasing in popularity, especially internationally (Peer Resources Mentorship Directory, 1999; STAR Peer Tutoring, 1995). Bierema and Merriam (2002, p214) defined e-mentoring as "a computer-mediated, mutually beneficial relationship between a mentor and a protégé...". Electronic mentoring is still at an early stage of growth and much needs to be done in identifying aspects of the electronic medium, which includes various new communications technology, in order to enhance mentoring relationships. However the "egalitarian quality of exchange and the boundaryless configuration" of e-mentoring as compared to traditional mentoring provide opportunities which can be both beneficial and detrimental (Bierema and Merriam, 2002, p219). E-mentoring has provided ease of access and minimum investment of class time. However the same reasons might result in less commitment to the mentoring relationship as one can easily end or strike out of virtual relationships (Bierema and Merriam, 2002). In addition, as electronic mentoring provided easy access to mentors, workloads would potentially increase significantly for mentors unless some constraint protocols are applied.

In the US, "Mighty Media" offered a free public service available on the internet for teachers to mentor each other via email (Bierema and Merriam, 2002). Examples of e-mentoring for undergraduates included one by the Colorado State University Centre for Science, Mathematics and Technology Education where electronic mentoring relationships between professional adults and students worldwide were being run. The Women in Engineering Programme run by the College of Engineering at Pennsylvania State University incorporated an alumni email mentoring programme

which matched women engineering students with women engineering alumni. The participating alumni initiated the mentoring relationship with an introductory email to their protégé (Marra and Pangborn, 2001).

MacCallum and Beltman, (1999) reported four stages in designing a successful mentoring programme, including:

(1) Establishing a programme: (clear goals and expectations, written guidelines and procedures, detailed planning, co-ordinator selection, sufficient resources and funding, creative marketing);

(2) Selecting and training programme participants (careful selection of mentors, training mentors, selecting and preparing mentees, matching mentors and mentees);

(3) Implementing the programme (practicalities, regular activities, ongoing support and feedback, regular monitoring of participants, conclusion);

(4) Evaluating the Programme (why evaluate, who should do the evaluation, process and outcome data, evaluating data).

(Peer Resources Mentorship Directory, 1999; MacCallum and Beltman, 1999; Rafferty, 1997)

2.6 International mentoring programmes

Mentoring is becoming more acceptable and practised in an increasing number of fields and activities, examples of which include schools, universities, business, industry and sports institutes. These areas have already been accepted in many countries including the US, UK, Canada and China. More recently, Turkey has

introduced mentoring in hospitals (Saban, 2002) and St Joseph's Medical Center in Milwaukee in Wisconsin have recently developed an approach to mentoring for the retention and recruitment of young nurses (Green and Puetzer, 2002).

The most widespread use of mentoring within the education sector could be traced to the United States of America, where planned, structured or formal mentoring programmes were introduced in the 1980s, in conjunction with concerns over the progress, and attrition of students from minority backgrounds. Mentoring was recognised as a very valuable exercise in the United States, to the extent of the presentation of Presidential Awards to honour mentoring in Science, Mathematics and Engineering in 1998 (America Tomorrow, 2001).

One of the key dimensions of mentoring schemes was whether they were run on an individual or group basis (McInnis et al., 2000), indeed, there are examples of both methods. An extensive listing of university and college based peer support programmes compiled by the Peer Resources Network, has suggested that many peer mentoring programmes were based on individual mentoring, such as the peer support programmes at Simon Fraser University, University of Victoria (Canada), University of Manitoba, McMaster University, Stanford University, Buffalo State College, New Mexico State University, and David Health Education at the University of California (Peer Resources Mentorship Directory, 1999). However, the same listing also included some universities using group-based methods, such as the University of Western Ontario in which peer mentors work with groups of five first year students, and Harvard University, which offered peer counselling groups "staffed by carefully selected undergraduates who received training and ongoing supervision from the

University Health Service professional staff" (Peer Resources Mentorship Directory, 1999).

2.6.1 Supplemental Instruction Programme – A successful US-based model

Dr Deanna C Martin created the SI model at the University of Missouri-Kansas City in 1973 as a peer-assisted academic assistance programme in difficult subjects and in order to reduce the attrition rate of minority students. Initially offered only at the health science professional schools, the programme was extended throughout the university. It gained further recognition when the US Department of Education designated it as one of the few postsecondary programmes to be an Exemplary Education Programme. Federal funds were allocated to ensure the dissemination of the programme throughout the US. Outside of the US, SI is believed to operate in Australia, Canada, Denmark, Egypt, Malaysia and a few other countries (http://www.umkc.edu/cad/SI/overview.htm, accessed 27/9/2004).

SI sessions were regular informal sessions managed by SI leaders who were described as model students as they must be course competent and trained in proactive learning and study strategies. The tasks of the leaders were to facilitate students in their learning by integrating course content and learning/study strategies. SI programmes were implemented in historically difficult courses, upper level undergraduate courses and courses in professional schools. By targeting only high-risk courses, there was no remedial stigma attached to SI. Thus students of varying abilities and ethnicity participated in the programme (http://www.umkc.edu/cad/SI/overview.htm, accessed 27/9/2004).

2.7 National mentoring programmes

In Australia, since the 1980s there has been increasing interest in mentoring programmes, particularly those which have a formalised structure. In 1999, approximately 200 programmes were identified in Australia by the mentoring research project undertaken and funded by the Department of Education, Training and Youth Affairs (MacCallum and Beltman, 1999). Mentoring provided at Australian Universities included programmes designed to encourage secondary students to enter tertiary courses (Murdoch University); programmes that helped students to succeed academically and socially, such as those provided at Monash University, Queensland University, James Cook University, Victoria University and Central Queensland University (Bland, 1998; Benn and Davis, 1998; Hanley and Treston, 1998; Pope and van Dyke, 1998), and those that provided final year students with industry mentors to ease the transition into the workplace (Monash University, Griffith University).

Students entering university come from many and varied environments and may have difficulty in adjusting to a positive and well-organised area of learning. Lack of guidance in their previous home and school has left students with an apprehensive outlook of what is expected from them. Students with non-English speaking backgrounds have considerable difficulty in pronouncing, speaking, reading and writing in acceptable academic language. Furthermore, the Australian people tend to adopt the pronunciation and spelling as used by Americans. To improve this very difficult situation there needs to be an immediate, positive and well-guided introduction of mentoring programmes in all schools and universities.

2.7.1 Examples of University-based mentoring schemes

2.7.1.1 Monash University Mentoring Schemes

In 1995, Monash University piloted a mentor scheme within the Faculty of Engineering. The scheme provided an informal source of information about university life and engineering for female first year students to help ease the transition from secondary school to university. Evaluation of this programme indicated it had been successful in meeting its aims to help students persevere in their studies.

In 1999, the Monash mentoring scheme was open to both male and female participants and in 2000, the programme was extended to contain two components. The first was the junior mentoring scheme, which helped first year students acclimatise to university life with the aid of second year mentors. The second component, senior mentoring, matched final year engineering students with industry representatives and aimed to ease the transition into the workplace (Schneider, 1999). The programme involved peer mentoring, group mentoring, professional mentoring and academic mentoring. In each case, the role of the mentor was to provide guidance, facilitate the transition from school to university or from university to work, counsel on topics of concern, and offer insight and perspectives on work relationships and any topic of interest to the mentee.

2.7.1.2 STAR Peer Tutoring Programmes

The STAR Peer Tutoring Programme was launched in 1994 by Murdoch University in partnership with BP Australia. This has been one of the most comprehensive mentoring schemes in Australia. The programme operated with government and industry funding in Western Australia and aimed to encourage more secondary school

students to take science subjects, recognising that 'the best way to shape the scientific future of society is to begin with its youth' (Star Peer Tutoring, 1994). The programme matched tertiary students (tutors) with classes of science students in secondary schools. Tutors received training in communication skills, questioning techniques, teacher/tutor and tutor/student relationships. The STAR programme also included a series of field excursions to university labs, explaining the career options available to students and how the university operates. Evaluation of the programme found that tutors had improved self-confidence, increased communication skills, and developed leadership and teaching skills. Teachers found the programme worthwhile (89%), with some students improving behaviour patterns (36%) and 86% of teachers indicated that they would be interested in participating in the next programme. Students (75%) would like to have a star peer tutor again, saying it helped in their understanding about science (71%) (STAR Peer Tutoring, 1995).

2.7.1.3 James Cook University Mentoring Programme

The Mentoring Programme at James Cook University (JCU) Cairns, which started in 1991, was one of the earliest mentoring programmes conducted in an Australian university. The student peer mentoring programme has evolved through the years and is now virtually "self-perpetuating" with student mentors passing on the role to one of their selected mentees when they graduate. The success of this programme has been attributed to student ownership of the programme. A student was assigned as Assistant Mentor Coordinator and was involved in regular meetings with the Chancellor and Vice-Chancellor and a reference committee (Treston, 1999). Mentors took an active role in coordinating and maintaining the programme including updating the contacts' database of names, phone numbers and subjects and writing the column

"Mentors' Corner" in the university's fortnightly newspaper and the monthly magazine.

The programme has steadily incorporated Information Technology (IT) into the running of the programme. A Mentor website provided weekly information to be downloaded for the programme and IT training sessions were provided for student mentors to reward their participation. In addition a "Finding a Mentor" website enabled students living at remote areas to communicate with a mentor electronically.

The programme has an important socialising aspect for many students as it establishes support networks for students and reduces social isolation among students. At JCU, 55% of students were of mature age (25+ years) and most were first generation university participants (71.4%). In addition, a significant proportion came from rural or isolated backgrounds. Therefore the mentoring programme has been seen as an effective method of "offsetting the marginalisation of groups such as Aboriginal and Torres Strait Islander students, women in the non-traditional areas of study, and students with disabilities" (Treston, 1999).

A growing constraint on the mentoring programme has been funding for future development. The private sector has actively contributed in sponsoring the programme; Quiksilver, a clothing retailer, rewarded all mentors with a free trip each year to the Barrier Reef in three consecutive years and a local computer company gave all mentors one hour free tuition on any computing skill. In addition the mentor programme would acquire a greater vocational emphasis with the increasing integration of the TAFE and higher education sectors.

2.7.1.4 Peer Assisted Study Sessions (PASS) by the University of Queensland

PASS is a discipline-specific mentoring programme aimed at first-year undergraduates at the University of Queensland (UQ). Mentors were selected from second or third year students who had performed well in the target subject and are paid the basic tutor scale. PASS was implemented for subjects with a heavy content load, a failure rate of more than 10% and where classes were large and unsupported by tutorials or small group practical classes. Faculty and teaching staff were involved at all stages of the programme (Kelly, 1999).

PASS placed an emphasis on academic functions of mentoring programmes but performed a different function from a tutorial. It did not present new material and sessions were aimed at reconstructing lecture and tutorial material much like a study and review session. This was because the mentors are not experts, though competent, in the subject. The relaxed atmosphere of PASS encouraged students to participate and ask questions in the sessions.

The scheme was first trialled in a first-year Science subject where 1200 students were enrolled and the failure rate was around 30%. PASS has been running for 4 years in this subject and the failure rate has been reduced to 15%. Student feedback through focus group interviews suggested that PASS increased students' confidence and understanding of the more difficult topics in the subject. As a result of the success of the pilot programme, funding was extended to 15 other subjects in 1996 and most were successful enough to be continued in 1997 (Kelly, 1999).

2.8 Mentoring programmes at Victoria University

Victoria University encouraged mentoring programmes to support its open access policy embodied by the Personalised Access and Study (PAS) policy (The Teaching and Learning Development Team, 1997).

Frank Golding, (1997), in his memorandum on Mentoring at Victoria University of Technology, asserted that "Mentoring programmes will be required as an integral part of open access to minimise early drop-out or failure arising from experiences of isolation, alienation or inadequate skill and know-how in a range of areas of University life."

'Mentoring helps the students to succeed academically and socially and to become involved in campus life. The ultimate goals of the mentoring programmes are to assist students in obtaining the greatest possible benefits from their university experience and to help them graduate on schedule.' (Golding, 1997).

More recently, in 2001, the University established the Student Mentoring Working Group, which was tasked to provide recommendations on establishing an undergraduate peer mentoring scheme to be implemented as pilot projects in each faculty in 2002. The Working Group revealed a set of guidelines on establishing mentoring programmes which were based on the University of Queensland's Peer Assisted Study Scheme (PASS) and the American Supplemental Instruction model (Student Mentoring Working Party, Final Report, 2002).

2.8.1 TQIP and PAS mentoring programmes at Victoria University

In the early 1990s, a major driver of mentoring programmes was the Total Quality Improvement Programme (TQIP), which was a federally funded initiative (Best, 1999). Five projects with allocated funds of between $30000 and $60000 each were initiated throughout 1994 of which mentorship, and specifically peer support was a common theme. One such programme aimed at improving outcomes for students in transition from school to tertiary mathematics. This project was embarked on a large scale involving curriculum design, materials development and trials. Assessments were used to identify student learning needs and establishing informal student-based peer support systems. However emphasis was placed on designing teaching materials and assessment protocols rather than developing a full-blown peer support programme.

Another peer support project under the Commonwealth-supported TQIP involved Business Computing, Health Sciences, Sport and Recreations Studies and Psychology students and staff. This programme had a dual purpose; to establish cross-level tutoring arrangements regarding content areas and the formation of social clubs for students in the departments. Its extensiveness involved a considerable number of staff and, as a result, was labour-intensive.

In 1998, twenty Personalised Access and Study (PAS) Learning and Teaching Development grants were established (Hallet, 1999). Five of these projects addressed the issue of mentoring or peer support. One of these was the PASP mentorship programme. The project aimed to establish mentor arrangements between staff and students who gain entry through a separate entry code on application. The project did

not proceed because students identified for support were reluctant to participate and teaching staff found it difficult to commit the time to establish links with students (Hallet, 1999). Another PAS-driven programme was the peer-assisted study scheme. This mentoring programme sought the development of peer-supported groups led by students who were trained in assisting students to develop study skills. The scheme collapsed as students did not attend pre-arranged sessions with trained student leaders. The scheme was seen to be an add-on component and not part of the mainstream curriculum. In addition, training of student leaders was time consuming and expensive as they were paid to undertake the training (Hallet, 1999).

In the area of staff mentoring, one PAS grant was a peer mentoring teacher training programme. The project sought to establish mentor arrangements between trained and untrained teachers in both TAFE and Higher Education (Hallet, 1999). Participants could gain credit points to the Graduate Certificate in Tertiary Teaching offered by the university. This programme revealed that flexible budgets and other practical arrangements, such as staffing changes, were necessary in order to establish the projects. However as accreditation points were offered as rewards, pairing arrangements provided an effective professional development methodology (Hallet, 1999). Another staff professional development scheme, the Collaborative Research Group scheme, lasted for three years from 1994 to 1996 and was funded through the Commonwealth Development Fund (Hallet, 1999). The scheme assisted early career researchers in developing their research skills through matching an experienced researcher to groups of ten early career researchers. In this scheme, group membership thrived when participants were given opportunities to interact at a social

level and when support arrangements such as arranging regular meetings were provided to the leaders.

2.8.2 Other Examples of Victoria University mentoring schemes

Mentoring was first introduced into the Department of Engineering in 1987 at the Footscray Institute of Technology, which in 1991 became Victoria University. However, over a period of five to six years, the programme failed because of the declining amount of interaction between staff and students.

In Footscray Institute of Technology students were allowed entry on a very low grade point average in Higher School Certificate. Due to a low standard required for entry to the programme, this resulted in the high rate of failure. Overall studies showed that more than 50 percent of students were failing in the first year and maintained this difficulty in completing the degree in four years. The average time taken to complete an engineering degree was four and a half to five years. Staff in the Engineering Department then conceived the idea of starting the mentoring programme, which covered all areas of the Engineering Faculty. In the Electrical and Electronic Engineering Department, members of academic staff became mentors and were allocated ten students per mentor. Individual students were allocated time to see their mentor for fifteen minutes weekly on a one-to-one basis. Anecdotes of students' problems and progress were kept in an index filing box. The students were intended to come on a regular basis but later this became infrequent and lost its momentum because mentors and mentees discovered frequently that there was a mismatch between the two groups.

The Department of Civil and Mechanical Engineering followed a different style. There was a group discussion where a group of students would interact with a group of senior students plus a group of staff members. Meetings were held after normal working hours and accepted as a social event for all groups. In that meeting third and fourth year students would participate and this scheme proved more effective and is still being practised in the current Faculty of Science, Engineering and Technology on an informal and unstructured basis. Due to its informal nature, there has not been any evaluation carried out on the programme. In 1993, within the Department of Health Science, final year students (mentees) were encouraged by course lecturers (mentors) to undertake postgraduate study (Wong et al., 1994). Also, students in their first year of Business Computing were matched with second and third year students to aid new students in the transition to university life.

In 1997, the Victoria University Postgraduate Association (VUPA) and Equity and Social Justice Unit ran a pilot-mentoring scheme for postgraduate students (VUPA, 1998). The programme matched postgraduates in the second and third year of their candidature with enrolling postgraduates. The mentors were selected, trained, remunerated and received staff support for the period of their mentorship. The target groups were those from low socio-economic backgrounds, postgraduates from non-English speaking backgrounds, and postgraduate women. Mentors underwent training in regards to role clarification, role practice, processes, information about the services available to postgraduate students, and resources. The role of the mentor was an information sharer; encourager; problem solver; negotiator, referrer; culturally sensitive companion and a naïve inquirer.

In 1998, the Arts Faculty adopted the 'Circles' Programme, which has been one of the most extensive mentoring programmes at Victoria University. The aim of the programme was to improve retention rates amongst first year students. The programme involved a compulsory first year subject, which focussed on explaining the university context, approaches, and resources. Students attended a compulsory mentoring circle containing 10-15 students, which was convened by a mentor who played a listening and referral role. Benefits for participants included helping to create friendship networks amongst students, overcoming isolation, providing mutual support for students, developing support networks, helping to adjust to university life, stress management and addressing problems with subjects (Anastassiou *et al.*, 1998). This has been the longest running mentoring programme in the University as it is currently entering its sixth year. The programme has gone through significant changes whilst still maintaining its pastoral/counselling focus. It has incorporated more structured but fewer sessions.

In 1999, VUPA continued its mentoring scheme, incorporating the recommendations of the pilot programme and providing opportunities for one-on-one and group support (White, 1999). The programme included training for all participants along the lines of the pilot scheme, followed by monthly social activities, a mid-programme review and a final evaluation. Recent developments by the Centre for Educational Development and Support (CEDS) on mentoring programmes have been due to the recommendations of the Student Mentoring Working Party referred to in the earlier section. The Working Party recommended that a student mentoring programme should provide "extra support for students within students' academic subjects, is group-based and gives academic credit to the student mentors"

(http://ceds.vu.edu.au/mentoring/default.htm, accessed 15/9/04). Therefore in contrast to the PASS programme at the University of Queensland, the subject-based mentoring programmes by the Student Mentoring Working Party provided academic credits to its mentors through the elective subjects undertaken. In addition, the mentoring programmes were aimed at first-year undergraduates and recruited senior undergraduates as mentors. Prior to the recommendations, CEDS piloted two projects, in Biomedical Sciences and in Biomechanics. The evaluations obtained from these two trial programmes and the research conducted by the Party resulted in the mentoring programme for Accounting students in the Faculty of the Business and Law, which was piloted in early 2002. Favourable feedback from mentors, mentees and participating staff on the pilot Accounting programme has led to its third year of operation as well as the implementation of a new pilot programme at the School of Biomedical Sciences in August 2004.

2.9 Implications of literature review on development of a standardised university mentoring programme

The analysis of various mentoring literature points to several directions in the development of a universal or standardised mentoring programme. Firstly, it highlights the effectiveness of group mentoring sessions in delivering mentoring programmes. Though traditionally one-to-one sessions have been the mode of operation, group mentoring as illustrated in the US SI, James Cook University and University of Queensland experience are also effective in achieving the same aims. Perhaps additionally, group mentoring provides a collaborative learning experience for students.

More contentious is the issue of discipline-based as opposed to generic programmes. The Victoria University CEDS and UQ PASS schemes have highlighted the concrete benefits of subject-based or discipline specific programmes. The generic programme as illustrated in the Faculty of Arts programme has not been conclusively favourable however. On the other hand, it seems that if properly focused, the generic programme can also yield significant results as in the James Cook University experience. Ensuring long-term success of the programmes requires commitment not only from the University but also students. The University needs to instill a culture among staff on the importance of mentoring programmes. This can be done through its incorporation in a clear strategic policy and commitment of resources including staff and funds. Commitment among students can be engendered through active participation by students in the developmental process of the programmes. For example students can be assigned the responsibility of establishing various information networks and medium such as websites and printed materials for the mentors and mentees to keep in touch. Student mentors should also be given concrete rewards for their participation. Some Victoria University programmes offer academic credits to student mentors whilst James Cook University provides training and career development programmes and field trips sponsored by private companies to their student mentors.

The James Cook University mentoring programme also highlighted the effective use of technology in promoting a mentoring programme. Therefore one possible component of a universal mentoring programme would be the effective incorporation of IT, such as websites, for information dissemination or even running mentoring sessions.

Chapter 3

Methodology

3.0 Introduction to methodology

The literature review provided useful insights in guiding the research on mentoring programmes at Victoria University. An important starting point for any programme would be the definitions of mentoring, as viewed by the programme coordinators and senior management, followed by the characteristics of different mentoring programmes. With the information gathered, common and core characteristics of mentoring programmes could be obtained. In addition due to the lack of actual evaluation data on mentoring programmes, this project developed evaluation instruments as well as compiled evaluation data on ongoing mentoring programmes with the assistance of the programme coordinators. The following sections describe the research methodology in gathering data on the above points.

3.1 Research Questions

Specific questions asked during the research phase of this study have been:

3.1.1 Main Question

What are the core elements of a standardised mentoring programme?

3.1.2 Subsidiary Question

What impact did the programmes have on issues pertaining to retention rates and progress, multicultural and socio-economic diversity?

3.2 Information Needs

Table 3.1, outlines the information required to evaluate current mentoring practices in higher education at Victoria University and identifies various stakeholders involved in the programme.

Table 3.1: Information Required on Victoria University Mentoring Programmes

Stakeholders	Information			
	Programme Design	Training Programmes	Matching Mentors & Mentees	Mentoring Programme Evaluation
Victoria University Senior Management	X	X	X	X
Mentoring Programme Managers	X	X	X	X
Trainers		X		
Mentors	X	X	X	X
Mentees	X	X	X	X

Victoria University senior management would consist of Deans of the faculties involved in mentoring programmes, and the Deputy Vice Chancellor. Mentoring programme managers include those involved in the establishment and co-ordination of mentoring programmes. Trainers are those staff involved in training mentors and mentees in the mentoring process. Mentors include permanent and sessional teaching staff, student peers, and other Victoria University support staff. The information required, as outlined in Table 3.1, was obtained via questionnaires and in-depth interviews.

3.3 Methodology

Given the different levels of participants in a mentoring programme, the research approaches adopted should be able to cater to the different circumstances at each level. In-depth interviews were considered appropriate for gathering data from senior management and programme coordinators as they comprised a manageable number and are able to provide substantial information through face-to-face interviews. On the other hand, the considerable number of mentors and mentees available meant that using questionnaires would be a more efficient and effective method. Besides the above two methods, additional information was gathered through content analysis based on published literature such as mentoring project proposals and working papers as well as reports of meetings conducted by the Student Mentoring Working Party which formed part of the Victoria University Academic Quality and Planning Committee.

3.4 In-depth Interviews

Senior management staff involved in each programme were able to provide a holistic view on the aims, implementation and general impressions on the outcomes of the programmes. Thus in order to obtain this perspective, in-depth interviews were considered an effective method of gathering information.

Eleven face-to-face interviews adopting a converging-question approach were conducted. This approach began with broad, open-ended questions which provided the interviewee's general impressions on the topic and how they might be likely to apply it (Thomas, 2003). By posing initial questions such as "what is mentoring", it allowed respondents unrestricted freedom to explain what the word means to them

(Thomas, 2003). The intention was also to uncover the different interpretations that existed for various respondents.

Thereafter specific questions on the mentoring programmes conducted were posed. These usually related to the structure, activities, duration and other factual data of the mentoring programmes. The interviews also posed questions on the effectiveness of the mentoring programmes, as perceived by the respondents, in achieving their goals. The following illustrates a sample set of questions asked during an interview:

Questions asked during an interview with Senior Programme Manager, Faculty of Science, Engineering and Technology on 1 May 2002

1. What do you think mentoring is about?

2. When was mentoring first introduced in the faculty?

3. What were the expected outcomes of the programme?

4. What was the structure/format of the programme?

5. What activities were carried out?

6. How successful was the programme?

7. Were there any other mentoring programmes implemented in the faculty?

(Appendix V details the questions asked during the other interviews.)

3.5 Tabular presentation of interview data

As mentioned in the earlier section, besides in-depth interviews, additional information was gathered through literature published on the mentoring programmes and questionnaires distributed to participants of mentoring programmes. Data gathered are compiled in a tabular format in order to allow easy comparison of the

different programmes. Firstly, programmes were identified according to the department or faculty in which it was conducted. The persons interviewed for each programme were the senior management or/and programme coordinator. Thereafter important characteristics including structure, duration and the type of mentors and mentees were listed. However, due to space constraints not all characteristics can be illustrated here, but by listing some characteristics in such a way, the common characteristics or the diversity found in mentoring programmes conducted at the university could be identified. Other characteristics of mentoring programmes found such as the rewards schemes and training sessions for mentors will be highlighted under the description of outcomes found from reviewing existing literature on mentoring project proposals, working papers and reports of the Student Mentoring Working Party. An outline of the tabular format is shown in Table 3.2 using one mentoring programme as an illustration of its application.

Table 3.2: General format of tabular description of research data

No	Programme and Department	Interviewee	Structure	Commencement Date and Duration	End date	Mentee	Mentor
1.	Faculty of Arts (Circle programme)	Senior Programme Manager	Group of 5-12 students per mentor (6 sessions of 1 hr each)	March 1998 (4 months)	Ongoing	First-year undergra duates	Second-year undergr aduates

3.6 Graphical illustration of interview data

Another illustrative model developed on the different mentoring models available involves a ranking scale comprising mentoring functions, the type of mentee and the

type of mentor. In terms of functions, mentoring programmes have been implemented in Victoria University for reasons which can "be loosely referred to as pastoral and academic reasons" (Academic Quality and Planning Committee, 2001). This paper refers to the two extremes of mentoring functions as tutoring for academic reasons and counselling for pastoral reasons. The counselling focus of a mentoring scheme for both undergraduates and staff strives to help mentees to adjust to their new environment, build a support network to share experiences and ultimately increase a sense of belonging to the institution/department/campus (Academic Quality and Planning Committee, 2001).

These outcomes can be achieved through the following functions of a mentoring programme:

1. Acceptance/support/encouragement

2. Advice/guidance

3. Socialisation/host and guide

4. Role model

(Jacobi, 1991, p509)

On the other hand, an academic/tutoring focus of mentoring programmes includes improving pass rates and reducing attrition rates. These outcomes can be achieved through functions such as:

1. Training/instruction

2. Coaching

3. Tutoring

However between these two extreme outcomes, are functions that can potentially contribute to both outcomes. They differ in their degree of relation to tutoring or counselling related outcomes. Such functions include:

1. Challenge/career development opportunity

2. Visibility/exposure

3. Protection

(Jacobi, 1991, p509)

Thus in order to form an integrated model of the different functions, a ranking scale of the different mentoring functions has been established. These functions have been placed on different points in a continuum ranging from tutoring functions (pertaining to academic-related outcomes) to counselling functions (pertaining to pastoral-related outcomes). Counselling and tutoring here are used to refer to the types of activity and not professional functions. The shaded ellipse figures estimate the full range of the activities. The length of the ellipse represents the range of mentoring functions it covers.

Figure 3.1: Ranking scale of mentoring functions

| Tutoring activities | Department of Electronic & Electrical Engineering mentoring programme | Circle mentoring programme | Counselling-type activities |
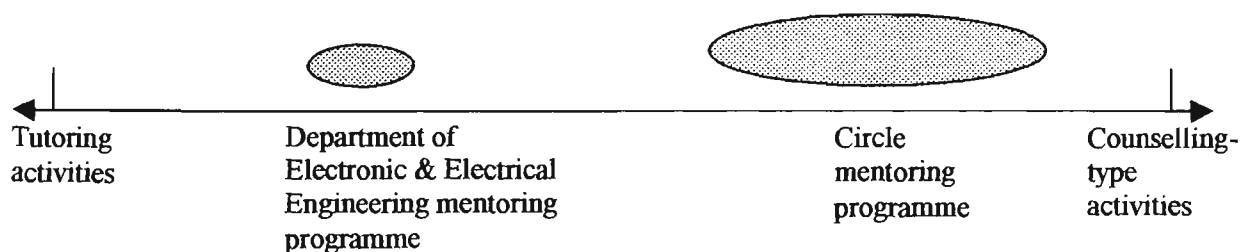
Figure 3.1 provides an illustration of the application of the ranking scale of mentoring functions. Mentoring programmes are placed on different areas of the scale as represented by the shaded areas rather than by a specific point. This is because mentoring programmes consist of both tutoring-type and counselling-type elements

and as such only general assessments of the mentoring functions of each programme will determine as to which area it falls on the above scale.

Besides a ranking scale of mentoring functions, ranking scales were also developed for the type of mentors and mentees involved in the project, which were viewed to be very important characteristics of mentoring programmes. Mentees could be ranked according to their level of academic study i.e. foundation studies students to first-year undergraduates and postgraduate students and mentors in terms of their seniority in the institution i.e. from second-year undergraduates to senior postgraduate students and senior academic staff.

3.6.1 Proposed integrated graphical model

By combining the three different scales, a three-dimensional model can be constructed on which different types of mentoring programmes can be placed. This model encapsulates the three most important characteristics of each mentoring programme; mentoring functions, type of mentor and type of mentee. By utilising a visual representation of the different types of mentoring programmes available, an impression of the diverse or homogeneous nature of mentoring programmes conducted by the different departments and faculties of the University can be formed.

An illustration of this model can be found in Figure 3.2. The rectangle represents the area in which Programmes 1 (Civil & Mechanical Engineering mentoring programme) and 2 (Electronic and Electrical Engineering mentoring programme) are located whilst the cube in the centre represents the central point of the rectangle.

Programme 7 (Circles programme) as represented by the small sphere falls along the range represented by the small bar in the integrated model.

Figure 3.2: Proposed integrated graphical model
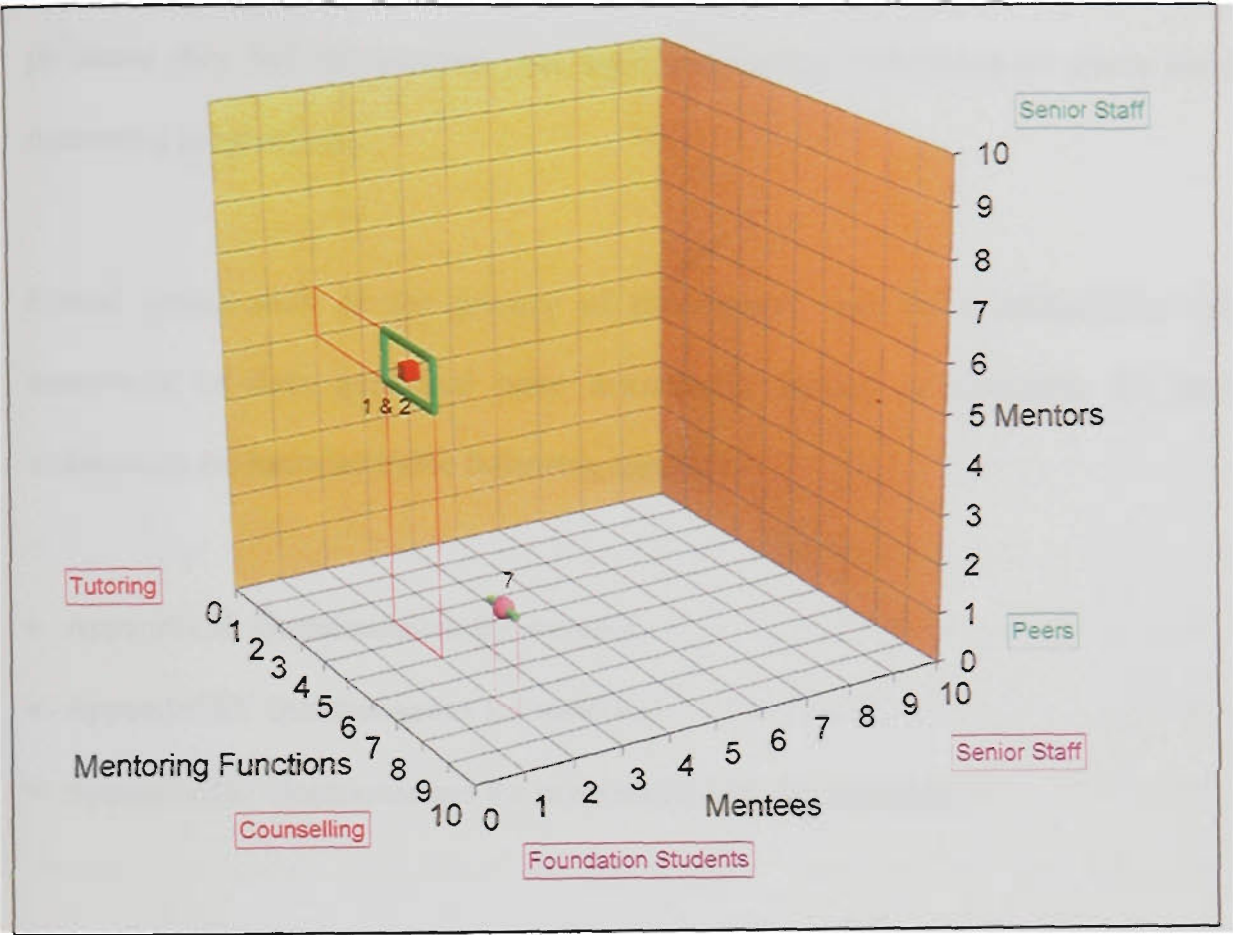
3.7 Questionnaire Design

Besides in-depth interviews, a survey on mentors and mentees was conducted through questionnaires. Initially the researcher intended to utilise three questionnaires, which were designed for programme coordinators, mentors and mentees. It was planned that a list of mentors and mentees to be surveyed would be obtained from interviews with programme coordinators and senior management. However due to logistical constraints, the questionnaires had to be adapted and utilised instead to gather data from mentors and mentees of two ongoing programmes.

Generally, questionnaires in the survey were designed to elicit each participant's understanding of the programme, how it operated from their perspective, the outcomes of which they were aware, their feelings about the programme, any problems they had encountered, and their suggestions and advice to others about mentoring programmes.

Ethical issues such as the privacy of participants, and the confidentiality and anonymity of data generated were maintained. Details of questions for each stakeholder are included in the following appendices:

- Appendix II: Questionnaires for mentees

- Appendix III: Questionnaires for mentors

- Appendix IV: Questionnaires for programme managers/designers

Both qualitative and quantitative information were sought from the questionnaires distributed through multiple-choice and open-ended questions.

3.7.1 Questionnaires for Programme Designers and Coordinators

The questionnaire for programme designers and coordinators was drawn up to obtain information on the design of the mentoring programmes, methods of screening mentors and matching them with mentees and evaluations conducted on the mentoring programmes. The first section of the questionnaire sought information on the policies and procedures which guided the programme designer or coordinator in terms of racial, economic and gender representation, payment of staff, record-keeping, structure of programmes as well as disability issues. The next section dealt with the

screening and selection process of mentors and mentees. Questions were also designed on the compatibility criteria set out in matching the mentors with the mentees. The last section of the questionnaire enquired about the success of the mentoring programme in meeting its goals and the performance indicators used to evaluate the programme.

3.7.2 Questionnaires for Mentors

The second questionnaire probed into the structure, training, confidentiality, screening and evaluation requirements of mentors. Mentors were asked concerning their depth of knowledge on the mentoring programme and adequacy of support and resources provided. They were also asked on the extensiveness of the training provided and its adequacy. The third section dealt with confidentiality issues whilst the next section sought the mentors' views on their compatibility with their mentees. Finally the questionnaire gathered feedback on the mentors' views on the success of the programmes in achieving and improving its goals.

3.7.3   Questionnaires for Mentees

The last questionnaire was divided into four sections. As with the previous questionnaire it dealt this time firstly with the mentees' opinions on the structure of the mentoring programmes and the adequacy of support and resources provided. The next section sought information on whether the programme addressed appropriate content and handled cultural, gender and disability issues sensitively. In the following section, the questionnaire enquired the mentees' experiences when matched to a suitable mentor. Lastly, mentees' opinions on the success of the programmes were sought.

3.7.4 Adaptation of questionnaires

The above three questionnaires were modified before implementation for two operating programmes; the Quality Circles programme by the Faculty of Arts and the Accounting mentoring programme for undergraduate students by the Faculty of Business and Law. These questionnaires were distributed to all mentors and mentees involved in the programmes and the data gathered and analysed.

3.8 Analysis of reports on mentoring programmes

In addition to in-depth interviews and questionnaire surveys, this research has analysed reports on past mentoring programmes. In particular, the research has relied on a report submitted by the Centre for Educational Development and Support (CEDS) entitled, An Outline of Mentor Programmes at Victoria University, Appendix 1, 1993-1998.

3.9 Overall review of methodology

The research to be conducted utilised three methods, in-depth interviews, questionnaire surveys and analysis of reports on mentoring programmes. Data from in-depth interviews are presented in a tabular, graphical and scalar format in order to ease comparison. Qualitative and quantitative analysis of questionnaire survey results have been conducted to assess the success of the programmes. Lastly valuable information has been gathered from the analysis of existing reports on mentoring programmes.

Chapter 4

Analysis of Results

4. Introduction

As described in Chapter 3, initially in-depth interviews were conducted with Victoria University senior management and programme coordinators. These interviews generally sought the senior management's opinions on the success of the mentoring programmes, their general interpretation of what mentoring means and the expected outcomes of their mentoring programmes. The interviews also gathered information on the general characteristics of each mentoring programme which were compiled and depicted in a tabular and graphical format in this chapter. These illustrations served as a basis for comparing the similarities and differences in the programmes.

4.1 Overview of results

Research was conducted across three faculties; Faculty of Science, Engineering and Technology; Faculty of Arts and the Faculty of Business and Law. Most formal mentoring programmes were aimed at first-year undergraduate students and undertaken by mentors from senior years. Other programmes included postgraduate students and staff as mentors. Organised staff mentoring programmes were carried out mainly by visiting academics. Programmes generally lasted from a period of a few weeks to a year, were structured and included training sessions for mentors. Two programmes, one for postgraduate students and one for first-year engineering undergraduate students were based on informal interest groups and social gatherings involving mentors from both students and staff. In addition, the student Circles

learning programme by the Faculty of Arts was made a compulsory component for the first semester of first-year students.

4.2 Interviews with Victoria University staff

In-depth interviews were conducted with senior Victoria University management staff and programme coordinators where information on the characteristics, functions and impressions on the outcomes of the mentoring programmes were obtained. The following highlights two important findings from the interviews; general definitions of mentoring as viewed by the interviewees and mentoring functions of the different mentoring programmes.

4.2.1 Mentoring restated

Interviewees from the same programme offered definitions of mentoring which in some instances differed from each other. Some used the term to encompass all types of programmes, involving both staff and senior students as mentors. However some interpreted mentoring as solely being that relationship between lecturers as mentors and students as mentees. Aside from the above difference, generally, mentoring was defined as encompassing a relationship that provided counselling (pastoral) as well as tutoring (academic) support. The following (Table 4.1) lists the different interpretations of the term as viewed by the interviewees:

Table 4.1: Interview results on definition of mentoring

Interviewee	Interpretation of mentoring
Senior Programme Manager, Faculty of Science, Engineering and Technology	Mentoring is an art form and involves counselling. It encompasses lecturer-student and senior-junior student relationships.
Postgraduate Programme Manager, VU Postgraduate Association	Mentoring is used to describe only the hierarchical model of professor to student, elder to a minor relationship. Peer programmes are referred to as peer support or networking programmes and not considered a mentoring programme.
Visiting Professor, Faculty of Arts	Mentoring includes the role of an adviser for female academics.
Senior Academic Staff	A mentor is someone who guides and teaches and it should be practised with one or two mentees.
Programme Manager, Faculty of Business and Law	The process in which successful individuals go out of their way to help others establish goals and develop/enhance skills.
Senior Staff, Centre for Educational Support	Mentoring is used to provide counselling and academic support and includes group as well as one-to-one methods. Mentors could include staff as well as senior students.
Senior Programme Manager, Faculty of Arts	Mentoring is seen as primarily providing pastoral support and includes group as well as one-to-one methods.

Interviewee	Interpretation of mentoring
Programme Coordinator and Manager, Foundation Studies coordinator, Faculty of Science, Engineering and Technology	Mentoring is a positive influence and has a social and educational dimension.
Senior Staff, Centre for Educational Support	Mentoring has various definitions but includes both a supportive and academic role. It is traditionally one-to-one but can encompass group mentoring. Mentoring is a deliberate, conscious, voluntary relationship that may or may not have a specified time limit.
Senior Staff, School of Biomedical Sciences And Volunteer mentor	Mentoring includes formal and informal sessions and can be one-to-one or group sessions.

Self-assessment

Programme coordinator	Definition
Jenny Seymour Volunteer organiser of peer mentoring programme	Mentoring is a one-to-one as well as group relationship, and provides both pastoral and academic support.

4.2.2 Mentoring Functions

However where definitions of mentoring covered both counselling (pastoral) and tutoring (academic) functions, mentoring programmes conducted usually emphasised one or the other. An illustration of an academically focused mentoring programme is the one conducted by the Engineering Department in 1986, which was one of the earlier mentoring programmes initiated to reduce student attrition rates in the department. It was highlighted that in 1986, 80% of the students were considered as

being "at-risk". In addition, out of 100 students taking engineering only 30% graduated within the minimum period of four years. The average time taken to complete the engineering degree was four and a half to five years. However the programme gradually died out as meetings between students and staff mentors became infrequent. In addition, no records of measurements on the outcomes of the mentoring programme were found.

One current academically focused mentoring programme is the subject-specific learning support programme coordinated by the Centre for Educational Development and Support. The subject-based mentoring programme for the Accounting subject is entering its third year whilst a pilot programme for Physiology at the School of Biomedical Sciences commenced in the second semester of 2004. Both programmes were aimed at subjects which historically students have found difficult and mentoring sessions were intended to provide regular self-help study support for first-year undergraduates.

Other programmes consisted of a mixture of academic and pastoral outcomes. The Arts Faculty Student Circles mentoring programme was aimed at easing the transition into academic life and improving retention rates amongst first-year students (Anastassiou and Hamel-Green, 2000). The programme was piloted at the St Albans campus in 1998 and was successively extended to other campuses in the following years. The scheme involved all first-year students undertaking general Arts Degree courses or other courses which utilise the Foundation subject, Knowing and Knowledge. Mentors were given a half-day training session and a Mentors Manual that detailed the aims and processes of the circles.

From the list of expected outcomes in the Student Circles programme it can be seen that it tends towards a counselling role. The scheme aims to achieve the following for the mentees:

- Encourage the sharing of ideas and experiences within shared discipline areas, fields of study or research interests;

- Provide mutual support in the solving of problems and difficulties

- Encourage more active involvement in extracurricular activities, both in relation to the field of study and the university more generally

(Anastassiou and Hamel-Green, 2000, p9)

Comprehensive evaluation was conducted after the pilot programme through two focus groups and several semi-structured interviews with student mentors. The evaluations included areas such as the student expectation of the circles, initial activities and experiences in the groups, perceived benefits and disadvantages of the circles, roles of students, mentors and staff, practical aspects of the circles and suggestions for improvements (Anastassiou and Hamel-Green, 2000, p11). There is some evidence that many of these suggestions were incorporated as the programme has developed.

4.3 Tabular presentation of interview results

In addition to the above results, additional information including the structure, duration and completion date of the mentoring programmes conducted was gathered. The earliest mentoring programme found in this research was one in 1986 and conducted by the Faculty of Science, Engineering and Technology. The author

conducted one such programme albeit on her own initiative and without much formal university support in 1988 (Table 4.1). Subsequently from the late 1980s to the 1990s various formal mentoring programmes were implemented but few remained in existence until current times. Most of these programmes disappeared for various reasons, either due to lack of funds, poor commitment from the participants and organisers or were mainly impractical due to the heavy workload involved. Learning support programmes however received a greater focus and formal support from the university with the implementation of the Personalised Access and Study policy, which was initiated in 1996. This key strategic policy was aimed at "establishing a framework of goals and activities based on putting into practice processes for life-long learning" (Kemmis, 2000, p4).

As a result of PAS, several funded programmes were implemented throughout the late 1990s. One initiative remains in existence after having survived through six years, the Faculty of Arts Student Circles programme. This programme is the longest running peer mentoring programme in the university. One recent initiative is the subject-based mentoring programme developed by the Academic Board Student Mentoring Working Party and coordinated by the Centre for Educational Support (CEDS). The first subject-based programme conducted was for an Accounting subject and is currently into its third year. This programme spans over a semester for each run. Besides these two programmes earlier programmes have died out lasting between a semester or over a year. Staff mentoring programmes were carried out mainly through visiting academics and lasted during the duration of their tenure at the university. Besides the duration of programmes, generally except for the Department of Electrical and Electronic Engineering programme implemented in 1986 and the one conducted

for female academics, most programmes were conducted on a group basis. The first programme was conducted on a one-to-one-basis between lecturers and students whilst the second one was conducted by a visiting professor for individual female researchers. The bulk of the mentoring programmes, however, were conducted on a small group mode, which consisted of around five to twelve students per group. In the Accounting subject programme, two mentors were allocated to a group so that they could provide support to each other.

Mentoring programmes differed as to whether they involved staff or senior students as mentors. Earlier programmes involved lecturers as mentors and the majority of the programmes involved first-year undergraduates as mentees. However in recent years peer mentoring has gained wider acceptance as evidenced by the Faculty of Arts Circles and the CEDS subject-based programmes. This trend can also be seen in the nationwide growth of peer mentoring programmes as illustrated by the University of Queensland PASS scheme and the James Cook University experience. With student mentors, training on group facilitating skills was conducted. The CEDS subject-based programme conducted 3-hour training sessions for volunteer mentors. Mentor training also included publishing a Mentors Manual in the Circles programme.

With the use of student mentors, several reward schemes were provided but none of the programmes included paid sessions for mentors. It was highlighted that besides being costly and potentially unsustainable in the future, paying mentors would raise logistical problems (Senior Staff, Interview, Appendix VI). Therefore mentors were recruited mainly voluntarily and given other forms of rewards such as certificates of appreciation and even academic credits as devised by the CEDS subject-based

programmes. Selection of mentors was effected through interviews and initial screening. In addition, student mentors' roles differed as to whether they covered a counselling or tutoring emphasis according to the focus of the programme.

The structure of mentoring programmes varied to the extent of the formality of the arrangements made. The earlier programmes were conducted on a more informal but regular basis. The Department of Civil and Mechanical Engineering conducted sessions during informal social gatherings, which were after official university hours. The mentoring programme conducted by the author was mainly based upon agreed arrangements between mentors and mentees. Mentors were recruited through personal networks and relationships and resources such as meeting rooms were obtained through the goodwill of individual lecturers or certain faculty members. However through the years, mentoring programmes have acquired a more formal character especially with the increased support given by the university. Ongoing mentoring programmes have allocated time slots, location and a specified duration. The Circles programme has incorporated the mentoring session as part of a component of an elective subject.

However, though the number of sessions and duration were fixed, the content of each session differed in terms of the extent of structure imposed. The Circles programme sessions were mainly unstructured and activities to be carried out depended on the needs of the mentees and the approach of the mentor. However due to the comments received from recent evaluations, the mentoring sessions are now themed according to specific areas such as Exam Preparation Skills, Assignment Writing, etc. The CEDS-

subject-based programmes are more structured as they included revision on the academic topics covered during the week.

In terms of evaluation and monitoring of programmes, earlier schemes had few formal evaluation mechanisms. The Circles programme conducted annual evaluations through two feedback sessions with mentors in the first semester of each year (Hamel-Green, 2004). However in 2004, the Faculty Mentoring team and CEDS distributed separate questionnaires to student circle participants and mentors and two group discussion feedback sessions with mentors in the first semester (Hamel-Green, 2004).

The CEDS subject-based programme undertook a more frequent system of evaluation. The programme was evaluated at two points, in mid-session and at the end. Mentors' comments were gathered after the mentor training session and during a de-briefing session at the end of each programme. As part of the evaluation, it was considered that the coordinator should visit each mentoring session as a silent guest in order to observe the mentor and provide feedback later. This idea was not taken up in the CEDS subject-based programmes due to logistical reasons (Best, 1999). Lastly, though several attempts have been made to incorporate IT such as in on-line mentoring, none of the programmes so far has fully and effectively utilised IT into its implementation.

The general characteristics of the mentoring programmes investigated are presented in Table 4.2 and the mentoring functions of the programmes are summarised graphically in Figure 4.1.

Table 4.2: General characteristics of mentoring programmes researched

No	Programme and Department	Interviewee	Structure	Commencement Date and Duration	Ending date	Mentees	Mentors
1.	Department of Civil and Mechanical Engineering	Senior Programme Manager	Unspecified groups of students per group of senior students and staff	1995 (after school hours)		Undergraduate students	Senior students and staff
2.	Department of Electrical and Electronic Engineering	Senior Programme Manager	Group of 10 students per mentor (one-to-one) - 15 minutes per week for one year	March 1986 – December 1986 - 1 academic year	Ended	First-year undergraduates	Lecturers

No	Programme and Department	Interviewee	Structure	Commencement Date and Duration	Ending date	Mentees	Mentors
3.	Faculty of Arts	Jenny Seymour	Peer mentoring Fortnightly 1 hr sessions	Semester 1, 1988	December, 1988	First-year undergraduates	Second-year undergraduates
4.	Faculty of Arts	Visiting Professor		2000-2002		Female academics and VU staff	Senior academic (visiting professor)
5.	VU Postgraduate Association (VUPA)	Postgraduate Programme Manager	Peer mentoring based on special interest groups formed			Postgraduate students (Peer Support programme)	Senior postgraduate students
6.	School of Business	Programme Manager	1 week residential training each at the beginning and at the end of the	17 July 2002		Diploma students	Existing employees in the industry

No	Programme and Department	Interviewee	Structure	Commencement Date and Duration	Ending date	Mentees	Mentors
			year Regular meetings throughout the year				
7.	Faculty of Arts (Circles programme)	Senior Programme Manager	Group of 5-12 students per mentor - 6 sessions of 1 hr each	March 1998 - 4 months	Ongoing (6 years)	First-year undergraduates	Second-year undergraduates
8.	School of Accounting and Finance - Accounting	Senior Staff Senior Staff	2 mentors for a group of 5 students - 4 sessions of 1hr each	March 2003 – June 2003 - 4 months - 2nd year of operation	Ongoing (3rd year of operation)	First-year undergraduate	Second-year undergraduates

No	Programme and Department	Interviewee	Structure	Commencement Date and Duration	Ending date	Mentees	Mentors
9.	Faculty of Science, Engineering and Technology Foundation Studies	Programme Coordinator and Manager	Peer mentoring - 3 hours weekly tutoring classes - indefinite hours outside class		Ongoing	Foundation studies students	First-year undergraduates and Course coordinator
10.	School of Biomedical Sciences - Physiology	Senior Staff and Volunteer Mentor	Peer mentoring Weekly 1 hour sessions	Semester 2, August 2004	Ongoing	First-year undergraduates	Second-year undergraduates

4.4 Scalar representation of mentoring programmes

Figure 4.1: Scalar representation of mentoring programmes researched according to the functions of the programmes
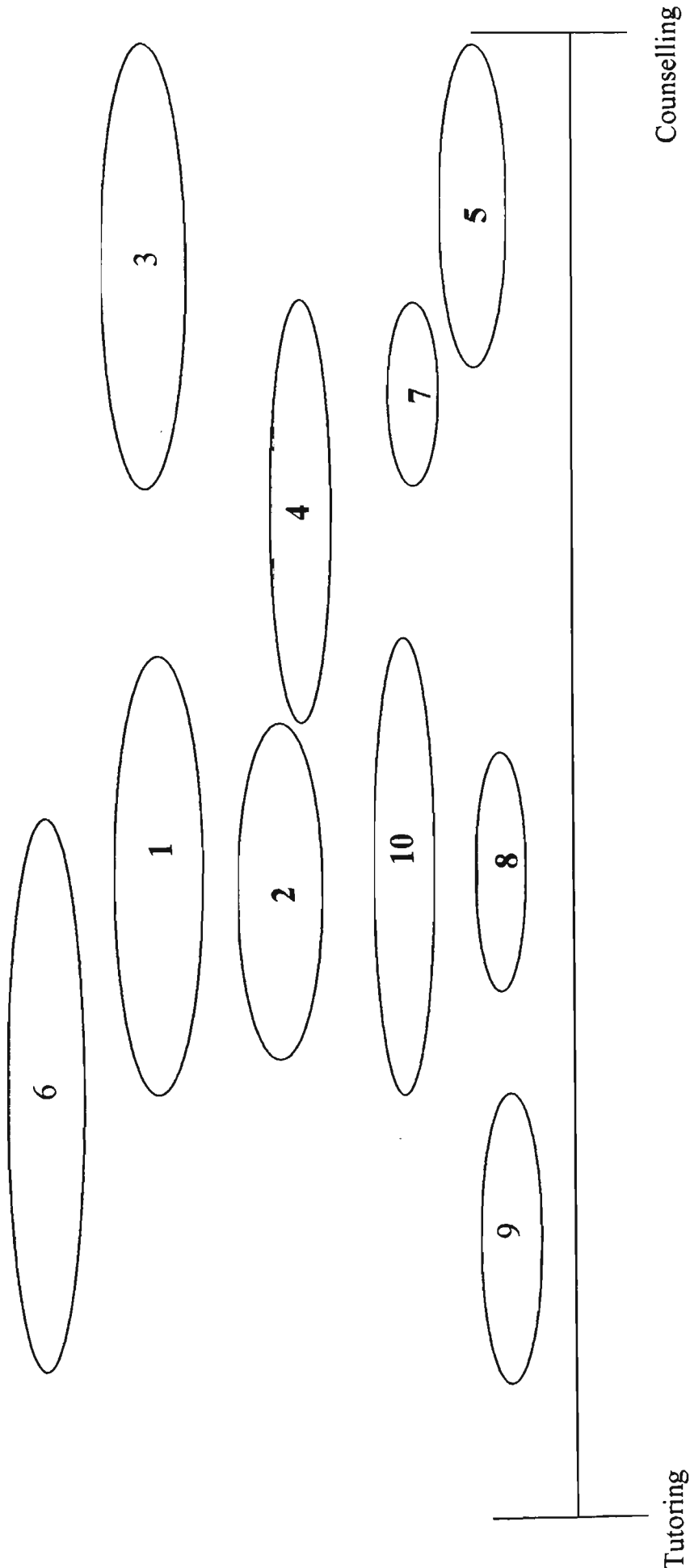
Legend (Figure 4.1):

1 – Civil & Mechanical Engineering

2 – Electrical and Electronic Engineering

3 – Jenny Seymour's Peer Mentoring Programme

4 – Female academic researchers

5 – VUPA – Postgraduate Association

6 – Work attachment – Faculty of Business and Law

7 – Circles – Faculty of Arts

8 – School of Accounting and Finance

9 – Foundation Studies

10 – School of Biomedical Sciences

The scale is used to define mentoring programmes on a mentoring functions scale with tutoring and counselling-type functions at opposite ends of the scale. The scale attempts to demonstrate the diversity of mentoring programmes conducted. Each programme is represented by an ellipse figure which covers the range of functions included in each programme. The more extensive the ellipse, the broader the range of functions of the programme.

The Foundation studies programme (Programme 9) is heavily focused on tutoring as the programme is a formal component of the students eligibility in future academic programmes. The work attachment programme by the Faculty of Business and Law (Programme 6) is also a component of a subject in undergraduate studies. Therefore ensuring students gain the necessary technical knowledge in their studies remain the top priority in these programmes. Next in emphasis on tutoring are the subject-based programmes led by CEDS (Programmes 8 and 10) and the earlier programmes conducted by the Engineering Departments (Programmes 1 and 2). These programmes were aimed at providing self-help study support for students in targeted subjects. One of the primary aims of the programmes is to reduce student attrition

rates in those subjects. The staff mentoring programme for female academic researchers (Programme 4) maintains an equal balance of tutoring and counselling functions as the mentees do not require as much technical or counselling assistance as undergraduate student mentees in Programmes 1, 2, 8 and 10. The Circles programme (Programme 7) however has a greater counselling focus as the mentoring programme is not subject-based and is aimed at easing the transition to university life for first-year undergraduates.

The VUPA programme (Programme 5) is organised along special interest groups and involves informal mentoring sessions agreed between the mentors and mentees. In addition, it receives formal support from the university. The mentoring programme by Jenny Seymour (Programme 3) however is basically an initiative between P2 and P3 students and did not receive formal support from the university. Regular meetings were arranged and mentors assisted mentees in their studies as well as provided emotional support. Thus Figure 4.1 shows the wide ranging nature of programmes in terms of their emphasis and mentoring functions. The emphasis of a mentoring programme will greatly determine the roles and expected outcomes of each programme and ultimately the success or failure of the programme. In addition to determining the mentoring functions, the following graphical representation (Figure 4.2) further illustrates the diverse nature of the mentoring programmes conducted by incorporating the factors of the range and type of mentors and mentees. Mentors may be sourced from anywhere in the range from peers i.e. fellow students to senior staff of the University up to and including the Vice-Chancellor. Mentees may come from any part of the student or staff population, from Foundation students to senior staff, academic or administrative.

4.5 Integrated graphical representation of mentoring programmes

Figure 4.2: Integrated graphical representation of mentoring programmes
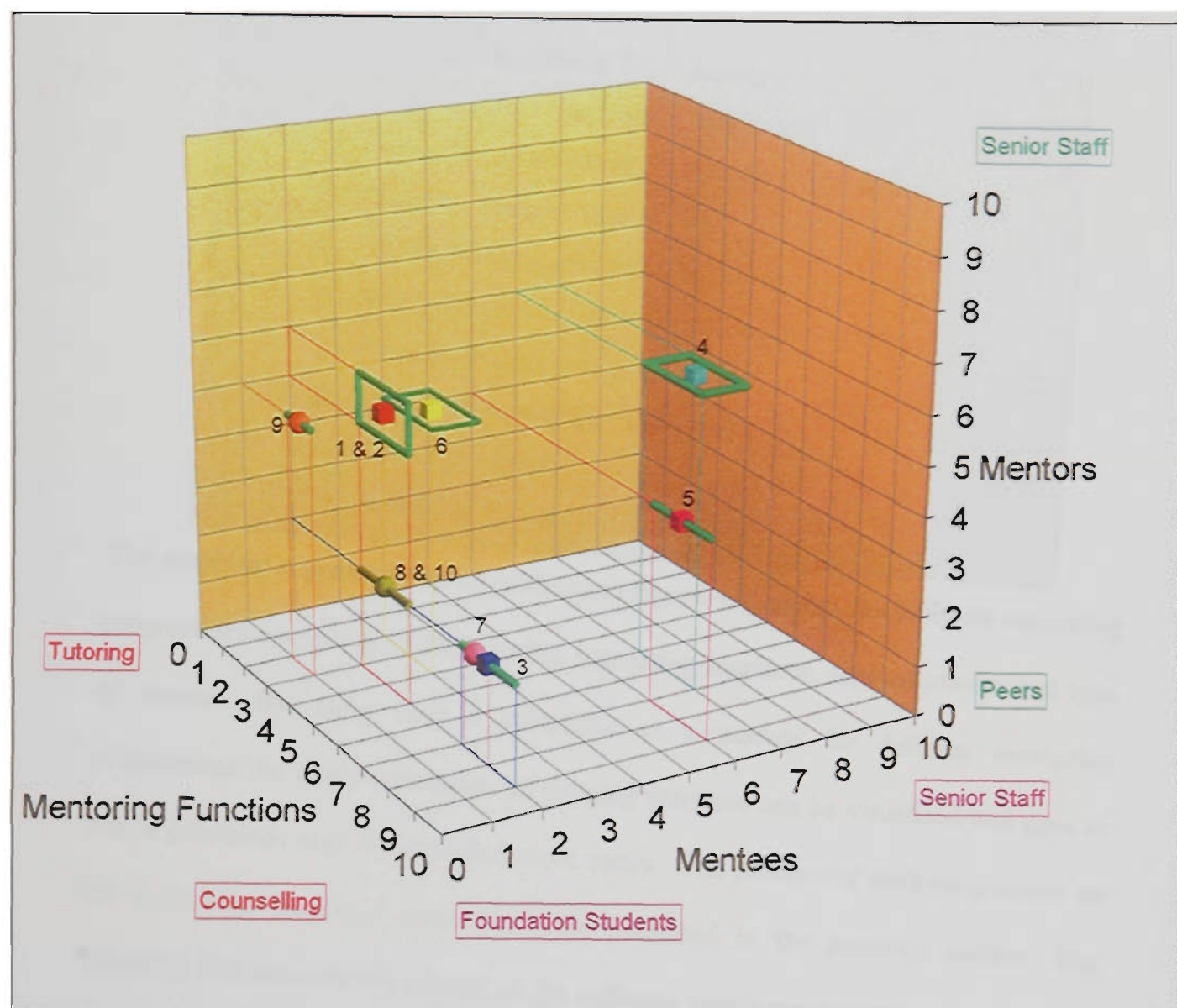
Legend (Figure 4.2):

X-axis: Mentoring Functions - Scale from Tutoring to Counselling

Y-axis: Mentors - Scale from Peers to Senior Staff

Z-axis: Mentees - Scale from Foundation students to Senior Staff

Mentoring programmes:

    1 - Civil & Mechanical Engineering
    2 - Electrical and Electronic Engineering
    3 - Jenny Seymour's Peer Mentoring Programme
    4 - Female academic researchers
    5 - VUPA - Postgraduate Association
    6 - Work attachment - Faculty of Business and Law
    7 - Circles - Faculty of Arts
    8 - School of Accounting and Finance
    9 - Foundation Studies
    10 - School of Biomedical Sciences

The graphical representation or schematic (Figure 4.2) places the different mentoring programmes according to three scales, mentoring functions, type of mentor and type of mentee. By using such a schematic as a method for defining mentoring programmes the interrelationships of existing activities can be visualised and gaps in future provisions may be identified more easily. The position of each programme on the mentoring functions scale has been described in the previous section. The following will describe the placing of the different programmes on the type of mentor and type of mentee scales.

The mentors' scale begins with first year undergraduates at one end and senior staff at the opposite end. Civil and Mechanical Engineering, Electrical and Electronic Engineering mentoring programmes (Programmes 1 and 2) and the staff mentoring programme for female researchers (Programme 4) are placed high on the mentors

scale as senior academic staff acted as mentors. Next on the mentors scale are the Foundation studies and work attachment programmes (Programmes 5 and 9). These programmes are managed by course coordinators and experts in the different work areas. The VUPA programme (Programme 6) which falls on the same level on the mentors scale recruits mentors from senior postgraduate students. Lastly peer mentoring programmes which included Programme 3, 7, 8 and 10 utilise senior undergraduates as mentors and are therefore towards the bottom of the mentors scale.

The mentees scale is stretched along a continuum with foundation studies students at one end and senior staff at the other. Programme 9 falls closest to the foundation students end whilst Programme 4 which caters to academic researchers including staff falls nearer to the opposite end. Close to Programme 9 on the mentees scale are Programmes 1, 2, 3, 7, 8, and 10, which cater to first-year undergraduates. The work attachment programme (Programme 6) at the Faculty of Business and Law is mid-point on the scale as it caters to second or third year students. Programme 5, which caters to postgraduates, falls nearer to Programme 4.

The graphical three-dimensional model shows the diversity of mentoring programmes conducted at Victoria University. In addition the graphical space as bounded by the scales represents the potential combinations of mentoring programmes that could be conducted.

4.6 Summary of interview findings

Through the graphical illustration of the mentoring programmes on three different scales alone, the wide diversity of programmes that have been run can be appreciated. When taking into consideration additional characteristics found in the tabular

illustration such as group or one-to-one programmes, voluntary versus paid schemes and generic versus discipline-specific schemes, it further emphasises the unique nature of each programme. Besides obtaining research information through interviews, two evaluation surveys were conducted for the subject-based programme in the School of Accounting and Finance and the Student Circles programme at the Faculty of Arts.

4.7 Results of questionnaires

The questionnaires developed by the researcher for mentors and mentees were adapted as evaluation instruments for the Accounting mentoring programme in Semester 1 2004 (March) and the Student Circles mentoring programme by the Faculty of Arts also in Semester 1, 2004. The questionnaire developed for programme managers and coordinators were utilised unchanged.

4.7.1 Evaluation of Accounting mentoring programme

The current programme builds upon the pilot initiated in 2003. This year attracted more mentors and mentees than the previous year. Students who had not studied accounting in year 12 were targeted but the mentoring programme was open to all first-year accounting students at Footscray Park campus.

4.7.1.1 Programme Manager

The programme manager of the accounting mentoring programme rated the programme as extremely successful for student mentors in improving their confidence and communication skills. Other performance indicators included the successful

completion of the course by mentees, positive feedback received from teaching staff and the positive response obtained from questionnaires distributed.

4.7.1.2 Mentors

All the student mentors (totalling nine) involved in the Semester 1, 2004 mentoring programme completed the evaluations. Mentors worked in pairs with one group having an additional mentor. All but 2 of the 9 mentors were enrolled in the third-year Enterprise Project subject which was designated as the Course Peer Mentoring subject. With this arrangement mentors were able to receive partial credit for their involvement in the mentoring programme.

The mentors highlighted points which they remembered most and were most useful during the mentor training sessions. Items such as importance of planning and how to structure sessions were cited as things frequently remembered whilst useful items among others included reference to personal boundaries, planning and helping each other.

4.7.1.3 Mentees

Twenty mentees, all based at the Footscray Park campus, participated in the programme and the evaluations. However not all report forms were fully completed. The programme consisted of nineteen full-time students and one part-time student. Eighteen students had not studied accounting in year twelve, and though the mentees were enrolled in a broad range of courses, all were taking one common subject, Accounting for Decision-making with two students repeating it. All but four students were from a medium or low socioeconomic postcode (see Figure 4.3). There were

seventeen domestic students and three international students. Six students spoke a foreign language at home. The average attendance rate was twenty-nine students per week. The completed evaluations reveal that 72% of the students attended 75% of the sessions and 60% attended all of the sessions. The total number of sessions was four. Since the above data has not been compared to the general student population in the course, it is not known whether the characteristics of the mentees are representative of the educational background of students in the course as a whole. As such, future evaluations of mentoring programmes should consider providing an analysis of the general educational background of students in the course as it could potentially yield valuable information on the type of student characteristics that would suit a mentoring programme.

Figure 4.3: SES by Postcode category (Best, 2004)
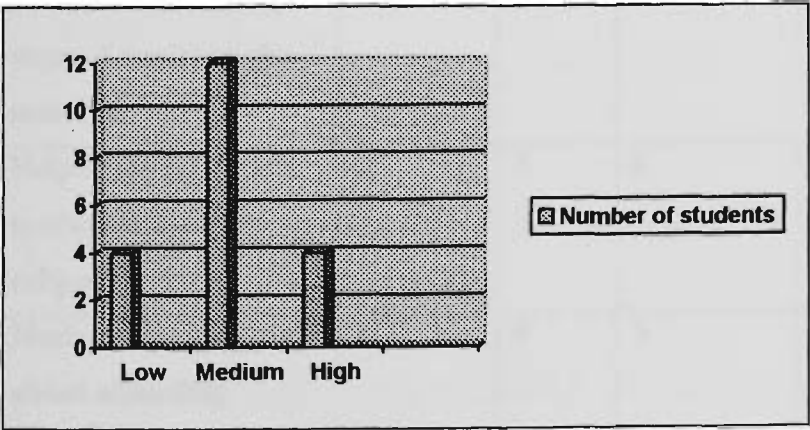
4.7.1.4 Summary of data

- **Programme Outcomes**

A majority of the mentees reported that they found the following benefits:

♦ Helped their knowledge in the subject

♦ Mentoring sessions had been a positive experience

♦ Increased confidence in the subject.

- ♦ Feel positive about attending classes.

- ♦ Increased their friendship networks.

Only about 50% of students thought that the programme helped them in finding different ways of studying the material and their studies in general. Most students did not find the mentoring sessions helpful in managing their time and in finding ways to approach other subjects.

Table 4.3: Summary of data for Accounting mentoring programme, Semester 1, 2004

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Not applicable
Helped my confidence in this subject	4	12	3	1		
Helped my knowledge in this subject	5	13	2	1		
Shown me different ways of studying the material	5	6	7	1		
Helped my approach to studies in other subjects	2	3	8	5	1	1
Made me feel positive about attending classes	6	9	3	2		
Increased my friendship networks	2	12	2	4		
Given me options on how to tackle my studies in general	2	8	9	2		
Proved helpful in how I plan and manage my time	3	4	9	2		1

Been a positive experience	6	12	2			

4.7.2 Evaluation of Student Circles learning programme, Faculty of Arts

The Student Circles learning programme conducted by the Faculty of Arts was initiated in 1998 and is now its sixth year of operation. Mentees are first-year students undertaking general Arts Degree courses or other courses which utilise the Foundation subject, Knowing and Knowledge. Students participate for a minimum of four 1-hour sessions in student circles of twelve to fifteen students mentored by P2 or P3 students. Mentees are assigned to broad discipline groupings, e.g. Psychology, Communications and Sociology (Hamel-Green, 2004). The programme is coordinated by Faculty coordinators, counselling staff and CEDS staff.

The scheme doesn't aim to solve problems affecting first-year students or to reduce attrition rates, but generally to aid students in settling into university life. Evaluations were conducted annually through two feedback sessions with mentors in first semester each year. In 2004, a more extensive evaluation of the programme was conducted through questionnaires developed for mentees and mentors (Hamel-Green, 2004). These survey forms were distributed to mentees towards the end of the first semester 2004, and 105 responses were received, representing 39% of all students enrolled in Knowing and Knowledge. Reasons for non-response included: not attending the circles, having attended but had ceased attending by time survey was conducted, circle was not meeting at time of distribution, or absence or late withdrawal from the course.

The scheme has the following aims:

- Provide first-year students with peer and collegiate support in tackling problems and difficulties related to adjusting to university life and study through the sharing of information, ideas and experiences;

- Help commencing students develop social links with other students;

- Inform students about people and resources who can support and assist them with their studies, their adjustment to be students, and their general well-being (Hamel-Green, 2004)

4.7.2.1 Mentees

A total of seventy-six mentees completed the evaluations in the Student Circles learning programme implemented during Semester 1, 2004. However some questions were not answered within the frame of reference and answers to these questions were omitted.

4.7.2.2 Benefits

Table 4.4 details the impressions of mentees on each of the expected outcomes of the mentoring programmes. These eleven outcomes are separate from the expected outcomes of the programmes concerning the mentors and programme coordinators.

Table 4.4: Outcomes of mentoring programmes

	Strongly Agree or Agree	Strongly Disagree or Disagree	Undecided or N/A
Helped me adjust to being a university student	35 (46%)	22 (29%)	19 (25%)
Reduced the concerns I had about studying at University	35 (46%)	20 (27%)	20 (27%)
Made me feel positive about attending classes	25 (34%)	18 (24%)	31 (42%)
Made me aware of services which can help me as a student	55 (73%)	13 (17%)	7 (10%)
Increased my friendship in circles	30 (39%)	17 (22%)	29 (38%)
Given me options on how to tackle my studies in general	39 (53%)	18 (24%)	17 (30%)
Proved helpful in how I plan and manage my time	16 (22%)	30 (41%)	28 (38%)
Been a positive experience	47 (62%)	7 (9%)	22 (29%)
Given me useful feedback from the mentor and fellow students on problems and issues	47 (62%)	7 (9%)	22 (29%)

	Strongly Agree or Agree	**Strongly Disagree or Disagree**	**Undecided or N/A**
Helped in understanding assessment tasks, requirements or expectations	50 (67%)	15 (20%)	10 (13%)
Helped in familiarisation with using computers for online, email, WebCT, or research purposes	36 (48%)	21 (28%)	18 (24%)

From Table 4.4, it can be seen that quite a significant majority (over 60%) considered the programme achieved the following outcomes:

1. Made me aware of services which can help me as a student (73%)

2. Been a positive experience (62%)

3. Given me useful feedback from the mentor and fellow students on problems and issues (62%)

4. Helped in understanding assessment tasks, requirements or expectations (67%)

In addition, only a slight majority found the programme helpful in providing options on how to tackle their studies in general. On the other hand, less than a majority thought the programme successful in achieving the following:

1. Helped me adjust to being a university student (46%)

2. Reduced the concerns I had about studying at University (46%)

3. Helped in familiarisation with using computers for online, email, WebCT, or research purposes (48%)

A greater proportion disagreed that the programme was helpful in how they plan and manage their time whilst the same proportion were unsure at to whether the programme made them feel positive about attending classes or increased their friendship in circles.

As a result of the evaluation the Circles mentoring programme for the next cohort will be modified. Mentoring sessions will now be structured along various themes such as Preparing for Exams, Writing Assignments, etc. However, generally, considering the relatively small amount of time committed, the scheme appears to be successful in assisting many, if not most of first-year students.

4.8 Overall summary of results

Research data were gathered from in-depth interviews, questionnaire surveys and analysis of existing reports. The in-depth interviews revealed the varying definitions of mentoring among the senior management and programme coordinators which may have determined their views of the programme's success or failure. In addition, a tabular and graphical presentation of data displayed the diversity of mentoring programmes conducted at the university in terms of characteristics such as group versus one-to-one, voluntary versus rewards-based mentoring, peer versus staff mentoring, counselling versus tutoring aims and generic versus discipline-specific programmes.

The questionnaire surveys highlighted the varying success of two peer mentoring programmes. The Circles programme, which was counselling focused, achieved moderate success as compared to the Accounting programme which was considered very successful and subject-focused. Being subject-focused, probably it was easier for the Accounting programme to measure expected outcomes as it was in line with academic aims. For the Circles programme, outcomes such as easier transition to university life is a more subjective and intangible outcome which is harder to measure and for which there was no planned assessment.

Lastly, analysis of existing reports revealed that past mentoring programmes were unsustainable and gradually disappeared from existence. This could be attributed to several factors such as lack of interest from participants, lack of funds, poor management and coordination and overwhelming logistics involved or success from students' viewpoint, hence no further attendance was needed.

The implications of the above findings on development of mentoring programmes will be examined in further detail in the Chapter 5. Of particular importance will be the viability of developing a universal or standard mentoring programme based on the research conducted.

Chapter 5

Discussion

5. Overview of research findings

The previous chapter outlined the results of the in-depth interviews, questionnaire surveys and analysis on existing reports on mentoring programmes. The results from in-depth interviews were presented in a tabular, scalar and graphical format. The first form illustrates the different characteristics of the mentoring programmes implemented according to the type of mentee, type of mentor, structure and duration. Thereafter the mentoring programmes were placed on a mentoring functions continuum with tutoring at one end and counselling functions at the other. Lastly the results of the mentoring programmes were placed within an integrated graphical format whereby the three scales interrelated the type of mentor, type of mentee and mentoring functions. This process can assist in realising both the complexity of programmes and the need for clarity in defining desired outcomes.

Questionnaire surveys were conducted on two ongoing programmes, the Accounting programme and the Circles programme. The surveys gathered information from three levels of stakeholders, programme managers/senior management, mentors and mentees. A quantitative analysis of results was conducted revealing moderate success in the Circles programme and outstanding success in the Accounting programme. Lastly, existing reports on past mentoring programmes were analysed and information gathered on the success and failure of such programmes.

5.1 Interviews

One clear observation from the interviews was that there is some variation in the definition of mentoring among the programme managers and senior management staff involved in the mentoring programmes. Taken very narrowly, mentoring defines relationships between a lecturer and a student, an elder to a younger person or a more experienced person to a less experienced person. This definition signifies that age difference plays an important component in categorising a person as a mentor. It reinforces the traditional impression of a mentor as a wise old sage having extensive experience and expert knowledge on the area being mentored on. Because of their expertise, mentors were then seen as authoritative figures in their fields and the mentoring relationship would probably tend towards an academic or tutoring role in the university environment.

Another definition of mentoring encompasses a wider scope, including relationships between senior students and juniors or peers. In this expanded definition, mentoring acquires a counselling emphasis as peer mentors are unable to provide the same level of expert knowledge as lecturers or academic staff. Where mentees are undergraduates, the expected outcomes of the mentoring programmes would be easing the transition to university life.

The interviews also revealed that the mentoring programmes were aimed at a wide variety of outcomes. Generally the programmes were aimed at increasing retention and success rates of students in their studies. For staff, mentoring programmes are meant to assist staff in career development and ease their transition to various stages of work life. Other outcomes include providing a support network, sharing of ideas

and encouraging extracurricular involvement. These outcomes can be categorised on a continuum with tutoring and counselling functions forming the two extremes. However except for the Accounting and Student Circles learning programmes, most mentoring programmes did not evaluate the success or failure of their implementation.

Based on the research, definitions of mentoring can potentially cover a broad range of outcomes and relationships. However the particular definition selected will define the scope of the mentoring programme implemented. Thus clarifying the particular concept of mentoring that is adopted will enable participants to develop a clearer understanding of the goals of each programme and ultimately form a basis for judging the success or failure of the programme.

5.2 Interpretation of tabular results

Table 4.2 compiled the characteristics of the various mentoring programmes conducted including the structure, duration and type of mentees and mentors. The structure of mentoring programmes varied as to whether it was one-to-one or group sessions. The Faculty of Science, Engineering and Technology mentoring programme involving academic staff and first-year engineering students were based on one-to-one sessions whilst the Student Circles learning programme was based on group sessions of one mentor per group of five to twelve students. Group sessions were as small as one mentor for two to three students (Accounting mentoring programme) but did not exceed twelve students per group.

Both informal and formal mentoring sessions were found in the various programmes. Informal sessions were sometimes formed along common interests and held in a

social atmosphere rather than in a classroom. They were also held at various times of the day (after university hours) and lasted about one hour per session. The duration of the programme also varied greatly. The Student Circles learning programme included six sessions over one semester whilst the Department of Electrical and Electronic Engineering programme lasted over a year with fifteen minute sessions per week. Some programmes included training of mentors and comprehensive development and planning. Others were merely ad-hoc arrangements that suited the people involved.

Thus there existed programmes which varied in terms of the degree of structure and flexibility. On the one hand, the Student Circles learning programme included fixed session times whilst the mentoring sessions in the Department of Electrical and Electronic Engineering programme were fixed on an individual and flexible basis. A fixed structure has enabled some programmes to sustain their momentum and participation of mentees though perhaps arguably only in the form of attendance rather than voluntary involvement such as in the Student Circles learning programme.

The interviews revealed that mentees ranged from foundation studies students to postgraduates and staff of the university. Mentors also covered a broad range, from senior undergraduates and postgraduates to senior staff and visiting professors. As a result of the broad range of programmes, the expected outcomes of each programme varied according to the different needs of the mentees.

Thus the tabular compilation of the characteristics of various mentoring programmes presented a clear picture of the diverse nature of such programmes in terms of structure, duration, type of mentee and type of mentor. It is interesting to note that the

Student Circles programme which involved comprehensive planning and development, is the longest running mentoring programme at the university (six years). The programme was initiated due to the university's Personalised Access and Study policy and, as a result, a significant amount of resources was committed. Firstly it developed a comprehensive mentor training programme which included the publication of a Mentors Manual. In addition, the mentoring sessions were integrated into the orientation programme and incorporated as part of the student's Foundation Studies. Thus significant investment of resources as well as commitment of the faculty and staff ensured the continuation of the programme through the years. This seemed to suggest that a linkage with an overarching policy objective will sustain the momentum and length of the project despite some of its more diffused objectives.

In addition, in response to the need to add further structure into its mentoring sessions, the Circles programme is incorporating different themes such as Assignment writing skills, Exam preparation skills, etc into its future mentoring implementation.

5.3 Interpretation of scalar representation of mentoring programmes

Mentoring programmes were dispersed across the scale of mentoring functions with tutoring and counselling at the extreme ends. Mentoring programmes which were subject-focused or were part of course requirements tend to fall on the tutoring end of the scale (Programmes 1, 2, 6, 8, 9 and 10). These included peer mentoring as well as student mentoring programmes. The expected outcomes of these programmes were mainly to reduce student attrition rates in the subjects mentored and to provide support on academic knowledge. In addition, programmes which involved a wide disparity of expertise between mentors and mentees tend to be focused on academic

outcomes. For example, the mentoring programme by the Department of Electrical and Electronic Engineering involved lecturers as mentors and first-year students as mentees.

5.4 Interpretation of results from integrated graphical representation

The integrated graphical representation further reinforced the diversity of mentoring programmes conducted. Various combinations of mentoring programmes from foundation studies students to postgraduate students as mentees, and from senior undergraduates to academic staff as mentors can be formed. Thus the wide variety of mentoring programmes available suggest that careful planning must be carried out in order to meet the differing needs of programme participants. Needs taken into consideration should not only be that of mentees but also of mentors and programme managers. This is because the success of any programme is measured differently in the eyes of the mentee, mentor, programme manager or the University and because of the differing types of commitment required from each.

From an organisational perspective, mentoring should form part of and be linked to a university-wide policy in order to ensure its sustainability. Victoria University has outlined the need to develop programmes to support students' transition to university study as a strategy to achieve its strategic objective of developing and motivating students (Victoria University, 2004).

5.5 Interpretation of results from questionnaires

One revelation in the research of the various mentoring programmes conducted is the lack of evaluation of programme outcomes conducted. Therefore the evaluations

conducted in the Accounting mentoring programme and the Student Circles learning programme provide valuable data on the perceived success of the programmes. As explained in the previous chapters, evaluations need to be conducted on programme managers, mentors and mentees as they might offer differing views providing information for modification or redesign of programmes.

The Accounting programme registered a significant amount of success in the eyes of all participants in the programme. The programme manager commented that it was extremely successful in terms of improving the mentees' confidence and communication skills. The mentors on the other hand highlighted the benefits of the training sessions that were conducted in preparing themselves for the mentoring sessions. They were also motivated by the fact that they could use their involvement in the programme in claiming partial credit. Lastly, the mentees generally supported the programme and found several benefits in attending them such as increased knowledge of their subject, a positive experience and increased their confidence. This success may be due to better planning of the programme resulting from experience of previous mentoring failures. However the Accounting programme involved a relatively small number of students, nineteen mentees and nine mentors and expansion may generate its own difficulties.

In addition to analysing the impact of the programme on the various participants of the programme, data was also gathered on the socioeconomic, and linguistic background of the mentees. The research revealed that there was a relatively higher composition of mentees from low and medium SES postcodes and that one third of students spoke a foreign language at home. However the evaluation questionnaires

were not adapted to analyse the correlation of the different socioeconomic backgrounds to the outcomes of the programme.

On the other hand, the evaluations conducted for the Student Circles learning programme involved seventy-six mentees, which was significantly larger compared to the Accounting programme. There was no evaluation conducted on mentors. The evaluations however revealed that this programme registered a relatively lower level of success. Only about an average of 65% of mentees found the programme achieved its outcomes of being a positive experience and helping in understanding assessment tasks, requirements or expectations. In addition, some resented that the programme was made compulsory (though in fact it wasn't) and the sessions were conducted at inconvenient times such as very early in the morning, very late in the day or at lunch time. Others complained about the lack of structure during the sessions and felt that they were a waste of time.

With this evaluation it is obvious that mentoring programmes not only require a formal structure in order to sustain their viability but also certain flexibility that considers mentees' varying needs. Structure will ensure participation by mentees and recruitment of volunteers as mentors. In addition, as in the Accounting mentoring programme, concrete rewards for mentors served as a crucial motivating factor for their involvement in the programme. The Student Circles learning programme revealed that a more structured mentoring session would provide positive outcomes for the mentees. However some mentees did comment that they preferred the freedom to express anything they like during the sessions and thereby implicitly suggesting that an unstructured session would be preferable.

Based on the above analysis, therefore, flexibility is crucial in a mentoring programme for it to adjust to the wide variety of needs among mentees. Mentees vary in terms of maturity, preparation, ability, interests and character. Therefore in order to provide an efficient and effective form of mentoring, programmes need to incorporate flexibility which will cater to different needs while maintaining sufficient structure to give confidence and prevent the impression of time wasting. For example, sessions should also be arranged at times when they suit the more variable needs of individual students or staff. These factors may demand a wider range of skills and training for mentors.

5.6 Interpretation of results from general overview of mentoring programmes

A general discovery of the research conducted in this section is the commitment and resources needed to sustain the momentum of mentoring programmes. Programmes under the Personalised Access and Study (PAS) policy as well as Total Quality Improvement Programme (TQIP) resulted in the development of several mentoring programmes because of the profile of such policies and the funds allocated in support of the programmes. One illustration of the importance of this support in sustaining mentoring programmes is the Student Circles learning programme, which has been running for six years with the implementation of PAS. PAS generated five mentoring-related programmes with grants of $10,000 each. TQIP resulted in five Federally funded initiatives which had mentorship and specifically peer support as a common theme. However where mentoring programmes were delivered one-to-one and required heavy logistical arrangements, they become unsustainable. This is not only because of the practicalities involved in trying to match schedules of so many

participants but also the sheer drive and motivation needed to push through such daunting tasks.

The above findings were supported by an interim report by the Academic Quality and Planning Committee (2001) where several recurrent impediments to past mentoring programmes were identified:

- One-cycle funding

- Lack of recognition for staff involved

- High coordination demands

- The add-on nature of such programmes

5.7 Proposed development of a standardised mentoring programme

Due to the wide diversity of the characteristics of mentoring programmes revealed in the research, it seems impossible to develop a standard programme which is able to effectively address all the different needs. For example, a mentoring programme for foundation studies students will most probably have a different structure as that for postgraduate students. The former would require a motivating atmosphere which provides structure as well as flexibility to explore areas of concern compared to the latter which involves mature students who are generally more focused on their course objectives.

Therefore, logically different programmes would require different implementation issues in terms of structure, duration, objectives and outcomes. However, at the same time from the previous analysis there are several fundamental considerations that prevail throughout most of the mentoring programmes conducted. A clear need that

should be established early in a programme is an agreed upon definition of mentoring for all participants. Other important elements of mentoring programmes would be clear expected outcomes, sufficient support resources and if possible a linkage to a university-wide policy such as the University Strategic Plan.

Therefore though in terms of operation or implementation mentoring programmes may differ, several general policy objectives should be evident in all programmes in order to ensure the long-term sustainability and success of the programme. Thus though this research commenced with the goal of establishing a universal programme, in light of the findings, a standard set of elements for mentoring programmes would be a more feasible option. The interim report by the Academic Quality and Planning Committee (2001) proposed the following set of characteristics of successful peer mentoring schemes:

- Undergone refinements, analysis and review over a number of years

- Received a high level of staff support and recognition

- Well-resourced

- Highly collaborative and involve staff from a number of areas

- Have an academic as well as pastoral focus

- Provided training for mentors

Taking into consideration the above points and the research conducted the following proposes several core elements or components of a mentoring programme:

Table 5.1 Core elements for mentoring programmes

1. Agreed definition of mentoring
2. Expected outcomes of mentoring programmes
3. Structure and flexibility
4. Resources
5. Policy support
6. Evaluation
7. Embedding mentoring in course requirements

5.7.1. Agreed definition of mentoring

A critical element in mentoring programmes is agreeing on a definition of mentoring particularly among the programme managers and senior management. By setting out to eliminate different interpretations based on its relevance for a particular programme the participants involved would find it easier to find a common path in terms of developing its implementation programme and objectives. Conflicting definitions of mentoring will entail different emphasis and implementation strategies. For example, adopting the hierarchical relationship of lecturer-student as the agreed-upon definition implies a different kind of structure for the mentoring sessions than a peer mentoring programme.

5.7.2. Expected outcomes of mentoring programmes

The expected outcomes of mentoring programmes determine the roles and responsibilities of the participants of the programmes. A programme with an academic-focused outcome such as improved performance of staff and students would require the participation of experts on subject knowledge such as lecturers or senior management rather than just peer mentors.

5.7.3. Structure and flexibility

Clearly defined outcomes will provide clear guidelines on the type of structure and flexibility needed. A mentoring programme that is supposed to provide more of counselling type of outcomes would require a more informal atmosphere where it would encourage mentees to open up and share their fears and concerns. An academically focused programme however would be enhanced by being integrated with subject and skill areas.

5.7.4. Resources

Sufficient resources would be needed for the success of a mentoring programme. These would cover items such as staffing, equipment and financial resources. The extent to which resources are committed would obviously again depend on the type of mentoring programme. An after-hours mentoring session, which includes some social aspects would incur little equipment costs but significant refreshment expenses. Resources must also be allocated for rewarding mentors such as monetary payment or designating mentoring sessions as part of the completion of a course or unit of study. In addition, the amount of resources involved will determine the size of mentoring

groups and mentors recruited. This would impact on whether the programme would be delivered in a small group, large group or even one-to-one mode.

5.7.5. Policy support

Most importantly, in order to garner strong commitment and support for a programme, it should be linked to an overarching university policy. For example, the university's policy of equity and social justice might result in the implementation of programmes targeting students from low socioeconomic backgrounds or minority groups. Mentoring can be linked to Victoria University's strategic objective on developing its students. One strategy to achieve this objective as outlined in the University's Strategic Plan 2004-2008 is to develop programmes which will assist students in their transition to university study.

5.7.6. Evaluation

In order to measure the success and improve programmes as they are implemented, regular evaluations should be conducted not only on the mentees' perceptions but also the mentors and programme managers or senior management. This is in agreement with the University's processes of Plan, Do, Review and Improve.

5.7.7 Embedding mentoring in course requirements

This research has revealed that through the years mentoring has gradually developed from an informal ad-hoc form of student support to one that is more formal in support and structure. This is mainly due to the growing realisation of mentoring's benefits for students in their transition to university life. However because mentoring is still

perceived as an add-on form of student support, it will be treated as something which can be easily removed.

5.8 Conclusions

Since ancient times mentoring has been a relationship that of a wise old sage guiding and counselling a young inexperienced protégé. Through the centuries, the term has broadened to include other types of relationship; a junior and a senior of which sometimes the age difference is less than a year, comprising an emphasis on career-development or academic skills as compared to pastoral elements, group mentoring in contrast to the traditional one-to-one approach and lastly some even lasting only a few weeks instead of years. However, certain key dimensions remain. Mentoring relationships are personal and include a nurturing supportive component that is mutually beneficial.

Mentoring in higher education plays a key role for the development of both staff and students. Mentoring programmes were implemented usually to reduce attrition rates among students and served as a less expensive method of providing student support. Also, they assist students and staff in coping with the transition to a new environment by providing access to experienced mentors who can teach them various coping strategies and inform them on the assistance available. However established mentoring programmes in higher education institutions were mainly geared towards first-year undergraduates which is seen to be the most vulnerable stage of their studies. Various illustrations were found such as the SI programme in the US, PASS scheme at the University of Queensland, Australia and the James Cook University Mentoring programme.

The literature review and research revealed that recent mentoring programmes at Victoria University has been successful in achieving its aims whether pastoral or academic. Differences in mentoring approaches have generated different success levels; pastoral programmes being moderately successful whilst the academic programme was highly successful as seen in programmes in other universities such as PASS in University of Queensland, Australia and SI in the University of Missouri, USA. This suggests that the practical and tangible focus of academic mentoring programmes is more structured and thus provide easily measured outcomes and expectations among students. Pastoral focus programmes therefore require a more structured approach in order to impress upon students the worth and meaning of attending the mentoring programme. However, as highlighted in the James Cook University experience, student ownership of mentoring programmes can yield significant success even when it is pastoral focused.

Therefore an important factor in ensuring the long-term success of mentoring programmes would be sustaining the momentum and increasing the acceptance level of the mentoring programme among students. In addition whether pastoral or academic, in order to gain universal acceptance, mentoring programmes require the involvement and commitment of the University as a whole. Commitment is to be engendered not only through a linkage with a University policy but also resource commitments. The SI model gained nationwide acceptance in the US mainly due to federal support and financial assistance.

One dimension revealed in the literature review is the development of e-mentoring. Websites for information dissemination as well as matching mentors to mentees have

proven to be effective in a limited sense to developing mentoring programmes as it allows boundaryless access in establishing mentoring relationships. Mentees from remote campuses are able to seek advice from mentors a distance away.

5.9 Future research on mentoring

In the light of continued and renewed emphasis on mentoring programmes, further research on certain dimensions on mentoring programmes would guide future developments. One area of future research would be the impact of mentoring programmes on mentees who have graduated. This is to trace the long-term effect of participating in a mentoring programme. Such a study should be contrasted with students who did not undergo any formal mentoring programmes during their undergraduate studies. Further research should be conducted on developing mentoring programmes for students as they enter the world of work as improving graduates' prospects of finding work through such programmes would significantly increase the University's standing in the eyes of prospective students.

This research has found that though a considerable number of mentoring programmes have been conducted in the university, not much analysis has been carried out on adapting mentoring programmes to the different needs of students from diverse social, cultural and ethnic backgrounds. The Accounting programme attempts to gather some data on the socioeconomic and linguistic backgrounds of mentees but does not analyse ways in which the programmes could be able to better cater for such diversity. Therefore a further refinement of existing programmes is how they can better address the needs of such a diverse group of people which is especially true at Victoria

University as it has been constantly rated as one of the most multicultural universities in Australia.

Successful mentoring must analyse the needs of the students, the resources of the University and identify clearly the desired outcomes of the programme before commencement. By embedding mentoring within the core structure of each course and through timely evaluations, each programme can be tuned to achieve its desired outcomes and form a critical component of all University processes.

References

Aagaard M E and Hauer E K, (2003), *A Cross-sectional Descriptive Study of Mentoring Relationships Formed by Medical Students*, Division of General Internal Medicine, Department of Medicine, The University of California at San Francisco, San Francisco, California, pp 298-302.

Academic Quality and Planning Committee, (12 April 2001), *A proposal on student mentoring at Victoria University*, pp1-3.

America Tomorrow, www.america-tomorrow.com, accessed 15 June 2001.

Anastassiou, M., Caferella, K., and Hamel-Green, M., (1998), *Arts Faculty Mentoring Project*, Victoria University of Technology.

Anastassiou, M., and Hamel-Green, M., (December 2000), *A Student Circle Approach to Peer Mentoring for First Year University Students: A Case Study of the Arts Faculty Mentoring Programme*, Victoria University of Technology, pp1-27

Anderson D, (1995), *Are you being served? Client Perspectives on Student Services and Amenities in TAFE*, (Research Report), Education and Student Services Standing Committee, Melbourne.

Anderson E M. and Shannon L A (1995) 'Toward a Conceptualization of Mentoring' In Kerry, Trevor and Mayes, Ann S (eds) *Issues in Mentoring*, London; Routledge; and The Open University

Bein, A.M., (1999), School Social Worker Involvement in Mentoring Programmes, *Social Work in Education*, 21(2): p120 In MacCallum, J., and Beltman, S., (1999), *International Year of Older Persons Mentoring Research Project*, DETYA.

Benn, L., and Davis, C., (1998), 'SCUS GURUS: Cooperative Student Support Network for Orientation 1997'. In Stokell, R., (1998), *Strategies for Success in Transition Years: the Third Pacific Rim Conference on the First Year in Higher Education*, 5-8 July Proceedings, Auckland Institute of Technology, Paper 21, Auckland.

Best G, (1999), *An example of a VU mentor programme which uses academic credit as reward and which is subject-based*, Appendix 2, Draft working paper, Centre for Educational Development and Support, Victoria University, 12 April 2001.

Best G, (2004), Accounting mentoring programme evaluation report, Semester 1, Centre for Educational Development and Support, Victoria University.

Bierema L L and Merriam B S, (2002), E-mentoring: Using computer mediated communication to enhance the mentoring process, *Innovative Higher Education*, Vol 26, No 3, pp211-227.

Bland, D., (1998), Breaking Out and Breaking In: A Multi-faceted System of Support for Socio-economically Disadvantaged Students, In Stokell R., *Strategies for Success in Transition Years: the Third Pacific Rim Conference on the First Year in Higher*

Education, 5-8 July Proceedings, Auckland Institute of Technology, Paper 36, Auckland.

Bullard G L & Felder M R, (2003), Mentoring: A Personal Perspective, *College Teaching*, Vol 51, No 2, pp66-69.

CEDS (Centre for Educational Development and Support), (2004), *Learning Matters*, http://ceds.vu.edu.au/mentoring/mentoring/default.htm, accessed 15 September 2004.

DeCoster, D A and Brown R D (1982), Mentoring relationships and the educational process. In R D Brown & D A DeCoster (Eds), Mentoring-transcript systems for promoting student growth, *New Directions for Student Services*, No 19, San Francisco:Jossey-Bass, pp5-18.

Dondero, G.M., (1997), Mentors: Beacons of hope, *Adolescence*, 32(128): pp881-886.

Earle C (1993) *2107 Curious Word Origins, Saying and Expressions*, New York, Galahad Books, pp405-406.

Green M T. and Puetzer M (2002) 'The Value of Mentoring: A Strategic Approach to Retention and Recruitment', *Journal of Nursing Care Quality*, 17(1); pp67-74.

Golding, F., (1997), Memorandum on Student Mentoring at Victoria University of Technology. In *'Personalised Access and Study Policy: Enhancing the Student Experience'*, Student Support Services Development Team.

Guetzloe, E., (1997), The Power of Positive Relationships: Mentoring Programmes in the School and Community, *Preventing School Failure*, pp100-104.

Hallet R, (1999), *An Outline of Mentor Programmes at Victoria University*, Appendix I, Centre for Professional Development (CPD), Victoria University.

Hamel-Green M, (2004), *Report on 2004 Participants Survey of Faculty Student Circles Mentoring Scheme*, Faculty of Arts, Victoria University, 16 November 2004, pp1-13.

Hanley, P., and Treston, H., (1998), 'Mentor Involvement in the First Year of University: the James Cook Experience'. In Stokell, R. (1998), *Strategies for Success in Transition Years: the Third Pacific Rim Conference on the First Year in Higher Education*, 5-8 July Proceedings, Auckland Institute of Technology, Paper 47, Auckland.

Hornblower S and Spawforth A (Editors), (1996), *The Oxford Classical Dictionary*, Oxford University Press, Edition 3, p279

Hunt, D M and Michael C, (1983), Mentorship: A career training and development tool, *Academy of Management Review*, Vol 8, pp475-485 In Jacobi M, (1991), Mentoring and Undergraduate Academic Success: A Literature Review, *Review of Educational Research*, Vol 61, No 4, pp 505-532.

Jacobi M, (1991), Mentoring and Undergraduate Academic Success: A Literature Review, *Review of Educational Research*, Vol 61, No 4, pp 505-532.

Jowett V and Stead R, (1994), Mentoring Students in Higher Education, *Education + Training*, Vol 36, No 5, pp20-26.

Kelly B, (1999), *Implementing Peer-assisted Study Sessions (PASS) within faculties at the University of Queensland*, Teaching and Educational Development Institute, University of Queensland, pp1-8.

Kemmis S, (2000), *The Right Place at the Right Time: Final Report of the External Evaluation of the Victoria University of Technology Personalised Access and Study Policy*, External PAS Evaluation, Victoria University, pp1-70.

Kram, K E (1985), *Mentoring at work: Developmental relationships in organisational life*, Glenview, IL: Scott, Foresman & Co In Jacobi M, (1991), Mentoring and Undergraduate Academic Success: A Literature Review, *Review of Educational Research*, Vol 61, No 4, pp 505-532.

Levinson, D J, Carrow, C N, Klein, E B, Levinson, M H & McKee, B (1978), *The seasons of a man's life*, New York: Ballantine In Jacobi M, (1991), Mentoring and Undergraduate Academic Success: A Literature Review, *Review of Educational Research*, Vol 61, No 4 pp 505-532.

MacCallum J, and Beltman S, (1999), *International Year of Older Persons Mentoring Research Project*, Report, Department of Education, Training and Youth Affairs - Centre for Curriculum and Professional Development, Murdoch University, 116pp.

Mallard K S, (2002), The Soul of Scholarship, *New Directions for Teaching and Learning*, No 90, pp59-68.

Marra M R, Pangborn N R, (2001) Mentoring in the Technical Disciplines: Fostering a Broader View of Education, Career and Culture in and beyond the Workplace, *New Directions for Teaching and Learning*, No 85, pp35-42.

McInnis C, Hartley R., Polesel J, and Teese R., (2000), *Non-completion in Vocational Education and Training and Higher Education*, Centre for the Study of Higher Education, University of Melbourne, REB Report 4/00, Melbourne.

McInnis C, James R., and Morris A., (1995), *The Masters Degree by Coursework: Growth, Diversity and Quality Assurance*, AGPS, In Victoria University Postgraduate Association, The VUPA guide to Peer Support

Melander E R, (2001), Educating the Practitioner: Strategies for Focusing on the Student in the Undergraduate Business Curriculum, *New Directions for Teaching and Learning*, No 85, pp85-94.

Meznek J, McGrath P & Gracia F (1989), The Puente Project, A report to the Board of Governors, California Community Colleges, Sacramento: Office of the Chancellor

(ERIC Document Reproduction Service No ED 307 920) In Jacobi M, (1991), Mentoring and Undergraduate Academic Success: A Literature Review, *Review of Educational Research*, Vol 61, No 4 pp 505-532

Moses Y T (1989), Black women in academe: Issues and strategies, Washington DC: Association of American Colleges, (ERIC Document Reproduction Service No ED 311 817) In Jacobi M, (1991), Mentoring and Undergraduate Academic Success: A Literature Review, *Review of Educational Research*, Vol 61, No 4 pp 505-532

Muldoon R and Godwin J, (2003), *The Faculty Mentor Programme in the Sciences: an innovative approach to supporting student learning*, Teaching and Learning Centre, The Faculty of the Sciences, University of New England

Noe R A (1988), An investigation of the determinants of successful assigned mentoring relationships, *Personnel Psychology*, 41, pp457-479 In Schrodt P, Stinger C and Sanders R, (2003), An examination of Academic Mentoring Behaviors and New Faculty Members' satisfaction with socialisation and tenure and promotion processes, *Communication Education*, Vol 52, No 1, National Communication Association, pp17-29.

Oestereichen M (1987), Effectiveness of peer tutors/mentors for disadvantaged students at Brooklyn College: Preliminary analyses, *Linkages*, 5, 27-33 (ERIC Document Reproduction Service No ED 296 021) In Jacobi M, (1991), Mentoring and Undergraduate Academic Success: A Literature Review, *Review of Educational Research*, Vol 61, No 4 pp 505-532.

Palfreyman D (Editor), (2001), *The Oxford Tutorial: 'Thanks, you taught me how to think'*, Oxford Centre for Higher Education Policy Studies, Thanet Press Ltd, UK, pp1-22.

Pascarelli, J, (1998), A Four-stage Mentoring Model That Works. In S. Goodlad (Ed.), *Mentoring and tutoring by students* (pp. 231-243), London: Kogan Page and British Petroleum.

Peer Resources Mentorship Directory, www.peer.ca/mentorprogrammes.html, accessed 31 October 1999.

Pope G and Van Dyke M, (1998), 'Mentoring... Value Adding to the University'. In Stokell, R. (1998), *Strategies for Success in Transition Years: the Third Pacific Rim Conference on the First Year in Higher Education*, 5-8 July Proceedings, Auckland Institute of Technology, Paper 46, Auckland.

Pounds A W (1987), Black students' needs on predominantly white campuses, In D J Wright (Ed), Responding to the needs of today's minority students, *New Directions for student services*: No 38, San Francisco: Jossey-Bass, pp23-38.

Rafferty J, (1997), *Peer Mentoring in Tertiary Education: A review of programmes*, Australian National Training Authority (ANTA), Student Services Committee, Brisbane, 1-44pp.

Rogers A, and Taylor A, (1997), Intergenerational Mentoring: A Viable Strategy for Mentoring the Needs of Vulnerable Youth, *Journal of Gerontological Social Work*, 28 (1-2), pp124-140

Saban A (2002), 'Mentored Teaching as (more than) a Powerful means of Recruiting Newcomers' in *Education*, vol.22, (4) pp. 828-839

Schneider R, (1999), *Engineering Mentor Scheme*, www.eng.monash.edu.au, accessed 31 May 2002.

Schrodt P, Stinger C and Sanders R, (2003), An examination of Academic Mentoring Behaviors and New Faculty Members' satisfaction with socialisation and tenure and promotion processes, *Communication Education*, Vol 52, No 1, National Communication Association, pp17-29.

Scisney-Matlock M and Matlock J (2001), Promoting Understanding of Diversity through Mentoring Undergraduate Students, *New Directions for Teaching and Learning*, no 85, Spring 2001, Jossey Bass, pp75-84.

Shumer R., (1994), Community-based Learning: Humanizing Education, *Journal of Adolescence*, 17, pp357-367.

Seymour J and McGill A E J, (2003), Peer mentoring – Help or self-help for the Disabled, *The Way Ahead: Disability in Education Conference*, University of Canterbury, New Zealand.

STAR Peer Tutoring, (1994), *A Pilot Programme for Australia*, Murdoch University, Perth, Australia, 17pp.

STAR Peer Tutoring, (1995), *Annual Report*, Murdoch University, Perth, Australia, 10pp.

Student Mentoring Working Party (Academic Quality and Planning Committee), 2002, Final Report, Victoria University.

Supplemental Instruction: An Overview,

http://www.ukmc.edu/cad/SIO/overview.htm, accessed on 27 September 2004.

Teaching and Learning Development Team, (1997), *Personalised Access and Study Policy*, Final Report, Victoria University.

The Oxford English Dictionary, (1989) 2nd ed. Oxford: Clarendon Press

Thomas R M, (2003), *Blending qualitative and quantitative research methods in theses and dissertations*, Oakland, California, Corwin Press.

Tierny J P, Grossman J B and Resch N L, (1995), Making a Difference: An Impact Study of Big Brothers/Big Sisters, Philadelphia, PA: Public/Private Ventures In MacCallum J, and Beltman S, (1999), *International Year of Older Persons Mentoring Research Project*, Report, Department of Education, Training and Youth Affairs - Centre for Curriculum and Professional Development, Murdoch University, 116pp.

Treston H, (1999), *Shifting Paradigms in Mentoring Programmes in Higher Education*, paper presented at 2nd Regional Conference on Tutoring & Mentoring, Perth, Western Australia, Sept 30 – Oct 2.

Victoria University, (2004), Victoria University Strategic Plan 2004-2008, p4.

Victoria University Media and Marketing Branch, (2002), Multicultural Media Report, Melbourne, p29.

VUPA (Victoria University Postgraduate Association) (1998), The VUPA guide to Peer Support, Melbourne.

Watts L, (1996), *A Guide to Mentoring: National Staff Development Committee*, Australian National Training Authority (ANTA), Brisbane

White K, (1999), *Mentoring for Postgraduates*, Melbourne, Victoria University Postgraduate Association,

Wong L, Nixon M, Au C and Chew P (1994), *Project Summary of the Mentorship Programme*, Melbourne, Victoria University of Technology

Wunsch M A, (1994), Mentoring revisited: Making an Impact Upon Individuals and Institutions, New Directions for Teaching and Learning, no. 57, Jossey Publishers, San Francisco. In Bond A, (1999), *Student Mentoring: Promoting High Achievement and Low Attrition in Education and Training*, NCVER

Zanden J W V, (1978), Human development, 2nd ed, New York: Knopf In Jacobi M, (1991), Mentoring and Undergraduate Academic Success: A Literature Review, *Review of Educational Research*, Vol 61, No 4 pp 505-532.

Bibliography

Borden J, Niday D and Johnson K M, *Mentoring across Boundaries: Helping Beginning Teachers succeed in challenging situations*, (2003), Stenhouse Publishers, USA, ISBN 1571103775

Lacey K, *Making Mentoring Happen*, (2001), Business & Professional Publishing Pty Limited, ISBN 1875680683

Miller A, *Mentoring Students and Young People: A Handbook of Effective Practice*, (2002), Kogan Page Limited, London, ISBN 0749435437

Rudney L G and Guillaume M A, *Maximum Mentoring: An Action Guide for Teacher Trainers and Cooperating Teachers*, (2003), Corwin Press, Inc, ISBN 0761946365

Trubowitz S and Robins P M, *The Good Teacher Mentor: Setting the standard for support & Success*, (2003), New York, Teachers College Press, Columbia University, ISBN 0807743879.

APPENDIX I:

Ethics Approval

1. Interviews with managers of mentoring programmes were conducted on a voluntary basis and all participants were made aware of the reason and intention for use of their responses before participation. No material has been used without consent and anonymity has been preserved using a response coding system.

This project process was begun before separate ethics approval would have been required.

2. Questions developed for mentees and mentors were incorporated into the assessment and evaluation procedures of all courses which utilise the Foundation subject, Knowing and Knowledge in the Faculty of Arts, for the Mentoring Circles Scheme and the pilot studies carried out by the Centre for Educational and Development Support on courses in Accounting (Faculty of Business and Law) and Biomedical Sciences (Faculty of Science, Engineering and Technology). As part of quality assurance processes of the University, it does not require separate clearance by the Ethics Committee.

APPENDIX II

Questionnaire One: Developed for the Programme Designer and Co-ordinator

On Design

- Was there a well-defined written purpose statement?

- What was the purpose of the programme?

- Were there written administrative and programme procedures – a long-range plan?

- Was the program inclusive of racial, economic and gender representation as appropriate to the programme?

- Were risk management and confidentiality policies taken in account in designing the programme?

- Were staff paid or were they volunteers?

- Did staff have appropriate skills and written job descriptions?

- Who has responsibility for administering the programme?

- What departments/faculties did the programme include?

- How are records kept?

- How was the mentoring programme advertised?

- Did the mentors get paid? If so, how much?

- What was the mentee to mentor ratio?

- How the mentoring programme works,

- Roles and responsibilities of mentoring,

- Record-keeping and administrative details,

- Inter-cultural awareness,

- Awareness of disability issues,

- Use of gender inclusive language,

- Basic learning principles,

- Questioning and instructional techniques,

- Role-plays, examination of mentors own strengths and weaknesses,

- Confidentiality requirements

- Issues in various stages

- Benefits of being a mentor/mentee?

- Do participants have written descriptions of their duties and the programme expectations?

- How long did training take?

- Who conducted training?

- Was ongoing assistance provided?

- Were mentees prepared before the programme regarding expectations and behaviour?

Training

- Did participants receive the training specified in the programme design?

- Did the training programme include:

  - How the mentoring programme works,

  - Roles and responsibilities of mentoring,

  - Record-keeping and administrative details,

  - Inter-cultural awareness,

  - Awareness of disability issues,

  - Use of gender inclusive language,

  - Basic learning principles,

  - Questioning and instructional techniques,

- Role-plays, examination of mentors own strengths and
- weaknesses,

Confidentiality requirements

- Issues in various stages

- Benefits of being a mentor/mentee?

- Do participants have written descriptions of their duties and the programme expectations?

- How long did training take?

- Who conducted training?

- Were mentees prepared before the programme regarding expectations and behaviour?

- Did the trainers perceive the training process as adequate and successful in meeting?

- The needs of the specific mentoring programme?

Matching

- Do written eligibility requirements for programme participants exist?

- Did the mentee, mentor or co-ordinator initiate the selection of mentors and mentees?

- How were mentors screened and selected?

- Did the program allow for sensitive pairing (racial, gender, religion)?

- Were mentees selected according to programme goals and resources?

- Were mentees allowed to specify criteria for matching? If so, what sort of criteria was used?

- Was there a good match between programme goals and mentor expectations?

Evaluation

- Has the mentoring programme undergone evaluation?

- At what stages was evaluation conducted?

- How are mentors monitored and evaluated?

- Is evaluation related to programme goals?

- Were any of the following performance indicators used to evaluate the

  programme:

  - Improvement in grades for mentees,

  - Student maintaining mentoring contact,

  - Word-of-mouth referrals to the programme,

  - An increase in demand for mentoring services,

  - Successful completion of the course,

  - Positive feedback from teaching staff,

  - Positive responses to evaluation questionnaires, and

  - Reduction in attrition for mentees participating in mentoring programmes.

- Have mentors received evaluations of their performance and what has been the

  result of these evaluations?

- How long has the programme been running?

- How many students are involved?

- Has the information been used to assess the impact of the programme?

- Have existing programmes been improved and extended?

- Could the co-ordinator reflect on the programme?

- Was programme advertising successful?

- How many positions have not been filled?

- What is the average time that a mentor has served?

- Were changes in enthusiasm and achievement observed for mentors and mentees?

- What was the value of the programme to mentors and mentees?

APPENDIX III

Questionnaire Two: Developed for Mentors

Design

- How did you find out about the mentoring programme?

- Did you get paid for mentoring? If so, how much?

- What was the mentee to mentor ratio?

- Who did you mentor? (eg. what year level was the mentee in?).

- If there was group mentoring, what was the maximum size?

- Were mentors rotated? If so, what are your thoughts on this process?

- Where did mentoring take place?

- Was this location appropriate for mentoring and did it give the programme an identity and allow for supervision?

- How often did you meet with the mentee?

- Were the staff appropriate to meet the organisations goals, needs of mentors and mentees?

- Were specific tasks set up for mentors and mentees? If so, was there diversity in activities while still allowing for individual choice?

- Was there a support system provided for mentors – adequate communication and training?

- Was confidentiality in the mentor/mentee relationship maintained?

Training

- Did you receive training?

- Did the training programme include:

- How the mentoring programme works,

    Roles and responsibilities of mentoring,

- Record-keeping and administrative details,

- Inter-cultural awareness,

- Awareness of disability issues,

- Use of gender inclusive language,

- Basic learning principles,

- Questioning and instructional techniques,

- Role-plays, examination of mentors own strengths and weaknesses,

Confidentiality requirements

- Issues in various stages

- Benefits of being a mentor/mentee?

- Were you provided with written descriptions of your duties and the programme expectations?

- How long did training take?

- Who conducted training?

- Was ongoing assistance provided?

- How did you perceive the training process?

Matching

- Did mentee, mentor or co-ordinator initiate the selection of mentors and mentees?

- Did the programme allow for sensitive pairing (gender, race, religion)?

- What were your experiences when being recruited?

- Was there a good match between programme goals and mentor expectations?

Evaluation

- Was programme advertising successful?

- What was it that made mentors and mentees respond to the advertising?

- Were all of your needs met?

- Did you know who the co-ordinator of the programme was?

- How could the programme be made more attractive to mentors and mentees?

- What were the key benefits of participating in the mentoring programme?

- How long did you serve as a mentor?

- Were changes in enthusiasm and achievement observed for mentees?

- What was the value of the programme to mentors?

APPENDIX IV

Questionnaire Three: Developed for Mentees

Design

- How did you find out about the mentoring programme?

- What was the mentee to mentor ratio?

- How were you referred to the programme?

- Did you pay for mentoring? If so, how much?

- Where did mentoring take place?

- Was this location appropriate for mentoring and did it give the programme an identity and allow for supervision?

- Were the staff appropriate to meet the organisations goals, needs of mentors and mentees?

- How often did you meet with your mentor?

- Were specific tasks set up for mentors and mentees? If so, was there diversity in activities while still allowing for individual choice?

- Was confidentiality in the mentor/mentee relationship maintained?

Training

- Were you prepared before the programme regarding expectations and behaviour?

- Were you aware of the content of training programmes for mentors?

- Were you provided with any information or training sessions?

- If so did the session include:

- How the mentoring programme works,

- Roles and responsibilities of mentees,

- Inter-cultural awareness,

- Awareness of disability issues,

- Use of gender inclusive language,

- Basic learning principles,

Confidentiality requirements

- Issues in various stages

- Benefits of being mentee?

- Do you have written descriptions of your duties and the programme expectations?

- How long did training take?

- Who conducted training?

- Was ongoing assistance provided?

- How did you perceive the training process?

Matching

- Did mentee, mentor or co-ordinators initiate the selection of mentors and mentees?

- Did the programme allow for sensitive pairing (race, gender, religion)?

- Were mentees allowed to specify criteria for matching? If so, what sort of criteria was used?

- What were your experiences when being recruited?

Evaluation

- Was programme advertising successful?

- What was it that made you respond to the advertising?

- Were all of your needs met?

- Did you know who the co-ordinator of the programme was?

- How could the programme be made more attractive to mentors and mentees?

- What type of mentor would you prefer?

- What were the key benefits of participating in the mentoring programme?

- Were changes in enthusiasm and achievement observed for mentors?

- What was the value of the programme to mentees?

APPENDIX V

Interview questions for programme coordinators/designers of Victoria

University mentoring programmes

1. What is mentoring? (Definition as viewed by programme designers)

2. What are the Aims/Outcomes of programmes in particular to the following:

- Counselling role

- Tutoring role

- Is there any linkage with the university policy

3. Characteristics of programme

- Details of Mentees

    - Total Number

    - Age range

    - Level of study

    - Socioeconomic backgrounds

    - Gender

    - Linguistic background

    - Disability

- Details of Mentors

- Age

- Level of study

- Expertise

- Training

- Type of Structure

  - Formal/Informal

  - No. of Sessions and duration

  - Facilities and other resources provided

4. Details of evaluations conducted

- For programme manager, mentor and mentee

APPENDIX VI

Interview with Senior Staff

Centre for Educational Development and Services

10.00 am, 15 September 2004

Questions

A. What are the latest developments on the following mentoring projects?

1. Accounting project

2. Faculty Arts Circles programme

3. School of Biomedical Sciences

B. Any other new mentoring projects in the pipeline

C. Latest policy developments concerning mentoring

D. Core elements of universal mentoring programme:

1. Concept of mentoring (is there a fixed definition?)

2. One-to-one or group

3. Duration of sessions

4. Evaluation (when and how will it be carried out?)

5. Resources or funds dedicated for the projects?

Response

Question A1

- The next session of the accounting mentoring programme will start in Semester 1, 2005. 2 earlier programmes were conducted in Semester 1 of 2003 and 2004.

- The committee for the programme included several senior academics and senior staff.

- CEDS is the overall coordinator of the programme

- Mentors are being recruited at Footscray Park and there are tentative plans to run the programme at Werribee and Sunbury campuses.

- Mentors were given academic credits as part of the Enterprise subject which is an elective.

- Mentees selected are those who have not done accounting before.

Question A2

- The circles programme has a pastoral focus in its aims

- CEDS has a minor role in coordinating the programme

- The programme was made compulsory for students.

- Through the years the programme has evolved to:

  - include more structure e.g. themes for each mentoring session, assignment writing, time management and exams

  - lesser sessions, only 6 now in one semester

  - Students doing the same subjects are grouped together

  - Where previously it was difficult to recruit mentors from Footscray, recently there has been growing interest.

- The programme spans 2 campuses; difficulties in adjusting to different cultures at the campuses.

Question A3

A small pilot programme is being conducted at the School of Biomedical Services in the Physiology courses.

- This programme however did not include an academic credit component for the mentors as there wasn't an elective subject to incorporate it since the students were already finishing their studies.

- One possibility would be to create a mentoring subject instead.

Barriers to establish mentoring culture

Gill Best will submit a paper outlining the problems and obstacles faced in further promoting mentoring to the VU Academic Board.

- One reason has been the resistance from various subject coordinators or faculties to implementing programmes due to various valid reasons.

- More time is needed to develop a culture that is more accepting of the role of mentoring in providing support to students.

- Administrative and organisational problems specific to different subjects eg. timetabling, academic credits for mentors

Question B

There are no other new programmes to be implemented

Question C

No new policy developments on mentoring

Question D

1. Variety of definitions on mentoring and useful to analyse the relevance and application of different definitions

2. Groups sessions were preferred for the subject-based mentoring programmes so as:

   - To promote collaborative learning

   - Address issues of safety for mentors and mentees. 2 mentors were assigned to a group thereby providing support for each other. Mentees were also allowed to change groups should they wish in order to avoid personality clashes.

   - Groups were also allowed to combine if it suited the mentors and mentees.

   - More mentors and mentees are joining the programme

3. Sessions remained the same as previous programmes

4. 4 evaluation exercises will be carried out:

   - Mentor training evaluation (questionnaires)

   - Mid-semester evaluation for mentees (questionnaires)

   - End of programme evaluation for mentees (questionnaires)

   - De-briefing session for mentors

5. Staff involved in the programme are given a 1 hr time release.

Other issues

Training of mentors

- Ideal would be a 2-day training but would be time consuming and tiring

- The current 3 hr training includes a video session of a real-life mentoring session in progress

- However insufficient time to allow mentors to practise their skills.

- It was intended that mentors should gain academic credits instead of being paid for their work. This is to prevent payroll problems.

Other ideas

- 2 staff members from TAFE have approached CEDS about the possibility of starting a mentoring programme

- Career Bridge has been running for 3 years and is a mentoring programme for final year students. This is run by a staff from the student career development branch.

- The subject-based mentoring programmes try to meet the core graduate attributes as outlined in the university teaching and learning policy.