PREVAILING AND PREFERRED LEARNING PRACTICES IN UNIVERSITY ACADEMIC SUPPORT

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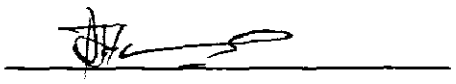
DEDICATION

To the "Ádams Family" and generations to come. I say to them, a road to success is characterized by stumbling blocks and stepping stones. Always use the stumbling blocks as stepping stones. To my mom "MaMtolo" who instilled the words "I can" in my mind; to my brothers and sisters who put trust in me and everything I do; my daughters Nomonde and Zoleka for believing in me, and my nieces Nonkululeko and Nokuthula for seeing one symbol as success and a source of inspiration.

May this manuscript remind you that "Only those who dare to fail greatly can ever achieve greatly".

DECLARATION

I, Jabulile Dorothy Adams, hereby declare that the work ***Prevailing and Preferred Learning Practices in University Academic Support*** is my own initiative, both in conception and execution and that all the sources that I have used or cited are acknowledged in the text as well as the list of references.



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ABSTRACT

The present study examines the prevailing and preferred learning practices in students support programmes. The aims of the study were:

- To determine the nature of learning practices that prevail at the University of Zululand.
- To determine the learning practices that student prefer.
- To determine the students' perception of the prevailing and preferred learning practices.
- To find out if such factors as gender, age, year level and faculty influence the students' perceptions of the prevailing and preferred learning practices.

In accordance with these aims, an extensive study on models of support was undertaken. Using purposive sampling to select research respondents, data was collected. A questionnaire was administered to students at the University of Zululand. Qualitative and quantitative data analysis was used in order to draw conclusion about the prevailing and the preferred state of learning practices at the University of Zululand.

Research findings led to the following conclusions:

- The nature of support that prevail at the University of Zululand is biased towards assisting students with academic matters. Personal support is provided.

- The results also show that students had their preference in terms of an ideal support structure.

- The results revealed that prevailing and preferred learning practices were viewed differently. Sixty six percent of students held a positive perception towards preferred learning practice.

- The findings revealed that the variable of year had an influence on the student's perception.

- The results show that males and females differed in their perception of prevailing and preferred learning practices. Another interesting finding however, was that both prevailing and preferred learning had no influence on perception. The factor of faculty only influenced the perception of preferred learning practices.

- Findings emanating from additional information revealed that students preferred that intervention should involve more than enhancing content. In other words students preferred an intervention programme that would embrace all their needs.

On the basis of the findings recommendations for handling issues of student support were put forward.

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CHAPTER ONE

Orientation of the study

1.1 Introduction

Programmes to develop and support under-prepared students have become a common phenomenon in South African tertiary institutions, the reason is not too far to seek. Universities are faced with a significant number of students who through no fault of their own find it difficult, if not impossible, to cope with university work. When South African schools were segregated on the basis of race, this problem was particularly acute among school learners of the black school system administered by the former department of Education and Training (DET) (de Villiers & Rwigema, 1998).

Most of the students are perceived to be under-prepared for the course for which they register because they also enter these courses with misconceptions which impede the assimilation of new knowledge. They are also underprepared in the basic skills, such as writing, reading and communication. In the area of basic subject knowledge (conceptual) students generally have a deficient knowledge base. An added problem, is that the majority of these students receive instruction in English which is a second or even a third language (Holtman & McKenzie, 1994).

It is also argued (Craig & Kernoff, 1995; Nyamapfene & Letseka, 1995; Kapp, 1994; Shay, Bond & Hughes, 1996; Thembela, 1996) that a number of these students as a result of the (DET) system, are without proper learning styles and practice for successful tertiary education. They have not yet acquired knowledge or desired proficiency in English or academic skills such as formal argumentation, ability to understand lecture and text materials. A fairly common view (amongst people involved in academic support) is that DET failed to provide these students with essential learning skills and that the students thus lack these skills and related cognitive skills. Besides the fact that DET had failed to provide the students with proper learning skills, these students' (particularly

Black students) poor performance is also attributed to high teacher-pupil ratio; inadequately trained teachers; lower education qualifications among black teachers (Hartman, 1989; Holtman & McKenzie, 1994) and the socio-economic and political dispensation.

Intervention programmes have been in existence since the early 1980's (Imenda, 1995) when black students started streaming into historically white universities. According to Hunter (1989), these programmes at historically white universities in South Africa were set up to assist entrants from the disadvantaged sector.

The aim was to maximize academic performance in students disadvantaged by the inadequacy of educational opportunities... (so that) they become learners who are critical, independent, exploratory, creative, and effective in processing, organizing and communication facts and ideas...(Academic Support Programme Report, 1987 in Agar, 1990 : 438). Put into a proper historical context, it can be said that "the antecedents of student support activities in South Africa were based within the context of undoing some of the daunting manifestations of apartheid education" (Imenda, 1995 : 178).

To address the plight of these students, the deficient or the clinical model (Scott, 1987) was adopted, the one Masenya (1997:8) describes as playing the role of "academic intensive care unit" for the supposed under-prepared students". The implicit focus has been on "remediating" or "supporting" such students (Schuster & Lund, 1994:499). The philosophical underpinnings of academic support involved ensuring that students fit into the existing institution. This approach implies that the problems rest with students and merely provides patch-up service (Haiden, 1999). Most programmes were as a result designed with the nature of students' deficit in mind and with the lecturers' expectations in mind regarding the nature and characteristics of tertiary students' needs. Schuster and Lund (1994) state that historically these programmes have been an add-on variety, usually involving support or bridging outside the conventional course structures.

As early as 1988 there was an indication that some students who had to receive academic support rejected it or took it reluctantly (Tema, 1988). As Makaula (1990 : 33) observes, these students who managed to matriculate with an exemption, "in the eyes of the parents, teachers, and thousands who fail along the wayside, the students we perceive as under-prepared in the first year, are students of outstanding abilities...they are known and know themselves to be intelligent. They suffer psychological dissonance when the first thing they learn when they come to university, is that they are not good enough to cope with academic work. They know that they managed against all odds to be where they are today and it may be difficult for them to be told that they will not manage in this setting. Students believe that those who believe that they have a problem, have serious problems themselves". To these students an insinuation that they are academically weak and therefore require academic support, sounds insulting to them. To them such an argument, no matter how accurate it might be, is perceived as reminiscent of a ploy to keep them down-trodden while students from other education systems (who have historically enjoyed the benefit of the resources of the country, and also happen to be of different skin pigmentations) are allowed to progress (Imenda, 1995:179).

Arguments from both student support practitioners and students can be viewed as valid. On the side of students, Murray, Pandor, George and Ruthman (1988) advice that we need to analyze the problems of students in order to arrive at a solution to the problem. They argue that students' problems should not just be seen in terms of students' disadvantaged backgrounds, but also in relation to deficits in the university environment and the programme. Mehl (1998) echoes the same sentiments as Murray, Pandor, George and Ruthman (1988) when he rightly argues that it is becoming clearer that in relation to realities of the present-day South Africa, it is not simply a case of students carrying various educational deficits onto the campus with them because of socio-economic and political dispensation, but rather a case of the universities themselves as represented by academic and administrative staff being deficient. Mehl (1998) concludes by stating succinctly that perhaps South Africa is filled not only with disadvantaged students, but also disadvantaged universities. The conclusion that can be drawn from arguments about the students' composition and needs, is that any academic support endeavour, has to be

seen in the environment of the whole educational structure at an institution. The opposing arguments about student support, do not in anyway suggest that student support programme must be done away with, but this might be a pointer to a paradigm shift in terms of how institutions serve their customers – that is, students. The present researcher endorses the idea of a structure that caters for students' needs. The system must be flexible to cater for diverse learning needs and allow incorporation of new initiatives.

1.2 Motivation for the study

As early as 1994 the University of Zululand realized a need to subscribe to the idea of academic support.

Prior to the inception of an academic support programme, there existed a structure on the campus called the Bureau for Tertiary Education (BTE), which was responsible for audio-visual services, staff development programme, the PLATO computer facility and reading, writing and listening support for students. In July 1993 BTE ceased to exist and was replaced by the Academic Support Programme (ASP). The structure of the ASP at the University of Zululand had the following units: the Computer-Supported Education Unit (LSE); Academic Literacy Unit (ALU); Literacy-Across the Curriculum specialists (LACs); Teaching and Learning Support staff (TEALs) and Academic Support and Counselling (ASC). This formal structure ceased in the year 1995 (Boughey, 1994). Presently students receive support by means of foundation courses. This assistance is extended to first year students only.

Despite the fact that students receive support at first year level, there is an observation from the researcher that some of these students continue to present problems related to learning, beyond first year level. Colleagues from different faculties have also raised a concern about these students' ability to handle their academic tasks. Some lecturers brand these students as 'lazy' or as 'not serious' with their work. An expectation is that after students have gone through a form of support, there should be an observable change in performance in the following levels of study – but that is rarely the case. This scenario is

a course for concern. The question that arises is where is: Is the problem located in students? Is it located in the programme? Is it to be traced from staff members or the institution itself?

As usual, the problem will be located in students, as students are always viewed as 'deficient' and as needing 'remediation'. It is very unusual for staff to locate the problems in themselves or in programme, or the institution. The researcher, with motivation from scholars (Tema, 1988; Makaula, 1990) who have observed that some students who have to receive academic support take it reluctantly because they believe that those who think they have problems have problems themselves decided to sympathize with the students and locate the problems elsewhere. The researcher hypothesized that the problem might be in the programme – what prevails in the programme. The researcher was under an assumption that the programme was a 'disciple' of the philosophical underpinnings of academic support', that students fit into the existing institution" (Haiden, 1999). There is a possibility that the programme does not suit the needs of students, or appeal to them, for that matter. What is manifested by students, might be viewed as a symptom of an underlying problem. An input from students as stakeholders regarding what are prevailing and preferred learning practices will prove useful as it will provide an idea about what the programme caters for and what needs to be catered for from their perspective.

Evidence that some support programmes have shortcomings has been documented. Nolte, Heyns and Venter (1997) have documented that these programmes lack rationale, well formulated objectives and logical structure. Pavlich and Orkin (1995) on the other hand state that such programmes are peripheral when addressing needs of students. Actually some historically black institutions have painfully realized that the academic development models they have adopted may certainly have to go for a serious "panel-beating' (Masenya, 1997 : 7). In fact there has been a shift in ideology underpinning student development intervention in South Africa. Perhaps undertaking this study will give an idea of model that will need to be adopted at the University of Zululand.

There has been a growth in the last century in the study of student support programmes in South Africa and elsewhere. Studies conducted as early as 1995 (Imenda, 1995) revealed that student support programmes have been subjected to close scrutiny and research over years resulting in further development and improvement. Several studies (Hartman, 1989; Moll & Slonimsky, 1989; Scott, 1987) have been conducted on student support in South African universities. Some studies focus on higher order skills in student support. These studies indicate that under-prepared students need to be assisted in developing higher order skills and deep processing skills in order to maximize success in their tertiary studies. Other studies (Globler & Marx, 1995; Smit, 1989; Starfield, 1992) looked at academic support as a tool to improve students language usage and proficiency; the investigations of Smit (1989), focused on the lectures teaching medium; Starfield (1992) focused on language and academic achievement. Collins (2000) looked at learning style as a factor to be considered in student support. Other studies conducted in South African universities (Naidoo, 1999) concerned themselves with student mentorship as a means of student development. Naidoo's study adopted a holistic approach to student support and focused on academic and social support. So far studies conducted are selective and limited in focus, in that they look at specific learning practices only. The narrow focus does not suffice to provide an explanation of the nature of support that prevails in these programmes.

In addition, studies have been conducted on the nature of academic support. These studies (Kilfoil, 1996 : 67; Peckham, 1990; Smit, 1989; Scott, 1987) emphasize on one hand that practices in academic support should involve more than enhancing subject content. On the other hand, practices must ensure that students receive the kind of support that will lead to development in a fullest sense. Some researchers (Dickson & Fleet, 2000) who have interest in academic support have identified in their study of students support, the mode of study, the students' tertiary qualification and the past academic performance as contributing to student academic success at degree and programme level in tertiary study and have focused their studies in these aspects.

In other countries, several studies have attempted to address the question of student support by focussing on student development theories (Ortiz, 1995); models on expanding academic support (Commander & Stratton, 1996); external factors relating to support programmes (Tillema & Koster, 1990). The impact of student support services on college retention and graduation rates (Dale & Zych, 1996) was another area of concern by those who are interested in student support elsewhere. Carroll and Tarasuk (1991) trace key student developmental models in a American community college, while Will (1999) focused on academic support and culture.

The studies locally and abroad have revealed different types of offerings and areas of focus when addressing student needs. All the studies are useful and relevant to the present study as far as providing background information regarding prevailing learning practices in support programmes. What are the preferred learning practices in student support programmes? Very little is known about the preferred learning practices, as most studies did not explore what learning practices students prefer. A study that will answer this question is necessary as it will shed light into perceptions of students towards the prevailing practices and preferred practices, and factors that influence the students' perceptions regarding the prevailing practices and preferred practices. Very few if any studies have been conducted on prevailing and preferred learning practices. Since very little research in this area exists, carrying out research in this area of student support would prove to be interesting and original. It is hypothesized that the more positive the learning practices are perceived the more likely the students will perceive them.

The significance and the contribution of the present research was enormous. Amongst other things, it will revealed empirical evidence on the prevailing and the preferred learning practices on student support programmes. Such information would be useful in determining the approach, which would underpin academic support interventions. It would also identify bad practices in the existing programmes and eliminate them. Discrepancies between the prevailing and the preferred learning practices in student support were reported. The study identified types of problems that impact on students' ability to make most of their study opportunities. This information would provide the

directors and staff of support programmes with a clue about the scope and nature of the students' problems. The findings of the study would hopefully influence the way in which student programmes should be designed and implemented. The study sought to contribute to the increasing body of knowledge on academic support in South Africa.

1.3 Statement of the problem

1.3.1 What is the nature of learning practices that are prevalent at University of Zululand support programme?

1.3.2 Which learning practices are preferred by students?

1.3.3 What will be students' perceptions of prevailing and preferred learning practices in university academic support programme?

1.3.4 Which factors influence students' perceptions regarding prevailing and preferred learning practices in university support programmes?

1.4 Aims of the study

The study is aimed at achieving the following:

1.4.1 To report findings on the nature of learning practices that prevail at University of Zululand.

1.4.2 To report findings on preferred learning practices.

1.4.3 To determine students' perceptions of prevailing and preferred learning practices in university support programme.

1.4.4 To find out if there are any factors which influence students' perceptions of prevailing and preferred learning practices university support programme.

1.5 Questions and hypotheses

1.5.1 In this study answers to the following questions were sought:

1.5.1.1 What is the nature of learning practices that prevail in the University of Zululand support programme?

Literature (Tema, 1988; Makuala, 1990) reveals that students who have to lap the help offered by academic support reject or take it reluctantly and they believe that those who think they have problems, have problems themselves.

1.5.1.2 Which learning practices are preferred by students?

1.5.2 The following hypotheses were tested in this study:

1.5.2.1 Students' perceptions of the prevailing and preferred learning practices do not differ.

1.5.2.2 There is no relationship that exists between students' perception and the students' characteristics such as gender, age, year level and faculty on the prevailing and preferred learning practices.

Literature on factors that affect students perception of practices in student support programmes is limited. This is going to be proved by statistical analysis as the hypothesis are going to be tested.

1.6 Definition of terms

1.6.1 Academic development

The term is referred to endearvous which are aimed at enhancing the academic and professional potential of students and staff in academic institutions (Imenda, 1995).

1.6.2 Academic support

Academic support refers to programmes which attempted to optimize the academic performance of students disadvantaged by secondary education that could, at best be described as inferior to that of White student body (Hunter, 1989).

The crucial difference between academic support and academic development seems to be its location with regards to the mainstream activities of the institution. Whereas academic support activities are viewed as peripheral to the mainstream activities of the institution, academic development focuses on mainstream activities (Spencer, 1994 : 528). What is common with the terms is that both are related to attempt which aimed at enhancing and maximizing student performance.

Both terms are in frequent use in educational circles. In present context both terms will be used interchangeably to refer to initiatives that aimed at meeting the diverse needs of students in academic institutions. The term student support will also have the same functional meaning.

1.6.3 Learning practice

The term refers to all activities in a support programme that culminate in knowledge acquisition, mastery of academic and social skills and guarantee a student academic development, and social adjustment at tertiary institution.

1.6.4 Prevailing learning practices

The term will be used to describe all activities that presently exist in a support programme that are aimed at assisting students maximize success and adjustment to university work and life.

1.6.5 Preferred learning practices

These are activities which students perceive as desirable, ideal, necessary or suitable for inclusion in support programme in so far as helping them maximize their success and adjustment to university.

1.7 Literature review

An indepth review on models of prevailing and preferred support practices in South Africa was undertaken. A review of previous and relevant research findings in this field was examined. This included studies on the nature of academic support, student's perceptions of academic support and factors influencing student's perception of academic support.

1.8 Research methodology

This section provides a rationale for methods employed.

1.8.1 Research design

The present study describes the existing status of events, so a descriptive research seem appropriate for this study, as it concerns itself with the current state of events (Ary, Jacobs & Razavich, 1996 : 14) and describes existing achievement, attitude and other characteristics of a group of subjects (McMillan & Schumacher, 1993). Descriptive research allowed all students who have interacted with academic support to describe the prevailing status of the support programmes. In addition this research design enabled the students to voice their expectations about future support programmes. A number of studies conducted locally, (for example, Hartman, 1989; de Villiers & Rwigema, 1998; Jiya, 1993; Leibowitz, 1995; Morphet, 1994; Cilliers & Sternberg, 2001; Starfield, 1992) have used this non-experimental design of the descriptive type. Some researchers abroad (Dale & Zych, 1996; Ortiz, 1995; Tillema & Koster, 1990; Will, 1999) have also used

this research design in their studies of student support. Descriptive research seems to be frequently used in studies of academic support. It might be because it deals with the present or current status of the phenomenon under study and does not manipulate the independent variable. The design was appropriate for the study since the researcher seeks to understand the current student learning practices in order to arrive at the desired learning practices of students in support programmes.

1.8.2 Sampling design

As regards the aims of the present study it was anticipated that using a purposive sample would be suitable for this descriptive research. This technique involves collecting data from information-rich participants about the phenomena under investigation. The key target group to provide relevant and up-to-date information about learning practices in student support programmes, are students who have interacted with academic support. Previous studies (Hartman, 1989; Nolte, Heyns & Venter, 1997; Smit, 1989; Starfield, 1992) on academic suport have used purposive sampling in the field of academic support. Most studies (Cilliers & Sternberg, 2001; Hartman, 1989; Jiya, 1993; Leibowitz, 1995) target first year students as participants in the study of academic support. A few studies (Leibowitz, 1995) have targeted other levels (post-graduates).

All these researchers have used purposive sampling because they wanted to target students who have a view about academic support as they have been exposed to it. The researcher chose to follow the footsteps of these researchers and use purposive sampling because the researcher intended to collect data from information-rich participants. Unlike other researchers (Cilliers & Sterberg, 2001; Hartman, 1989; Leibowitz, 1995) who targeted first year students only, the researcher chose to exclude first year students but draw a sample from any student at any under-graduate level. The reason for excluding first year students was that they would not have a complete view or information about the prevailing learning practices because they were still part of the programme. The researchers' view was that they would only be able to have a wealth of information after the duration of the programme. Besides, the researcher was also of an opinion that one is

able to provide more objective and relevant information only and if one views any phenomena he/she has been exposed to objectively. Very few studies on other year levels of study at under-graduate level other than first years have been conducted. The researcher deviated from Leibowitz (1995) who targeted post-graduate students only.

1.8.3 The method of data collection

In previous studies some writers have used a questionnaire to collect data (Hartman, 1989; Kilfoil, 1996; Grobler & Marx, 1996). A questionnaire was also used in this study for a similar purpose. The questionnaire enabled the researcher to derive data on prevailing and preferred learning practices in academic support programmes. The researcher included learning related items in the questionnaire. The questionnaire included fixed response items and open-ended questions. The instrument consisted of 3 sections. The first part, which was section A, covered biographical data. The second part (Section B) consisted of fixed response items related to prevailing practices and preferred learning practices. Section C consisted of open-ended items.

Factor analysis was used to validate the items. The researcher was not aware of any study in South Africa or elsewhere where learning related items were used in the field of academic support and in addition where learning related items were subjected for factor analysis.

1.8.4 Proposed method of data analysis

The manner in which data was analyzed was left flexible to permit qualitative and quantitative analysis. Data was analyzed both manually and by using the SPSS computer programme.

1.8.5 Planning for the administration of the research instruments

The study was conducted at the University of Zululand. Contact persons in participating faculties were approached for the distribution of the questionnaire. A trial run of the questionnaire (pilot study) was done in order to assess the appropriateness of the instrument and solve unanticipated problems. The pilot study was conducted at the University of Zululand. Those students who participated in the pilot run were excluded in the final study.

1.9 Summary

The issue of student support appears to be major concern in the institutions of higher learning. This then suggests that programmes that are designed to assist students cope with academic work need to be brought to scrutiny. A question, one might ask is "Which models are utilized to support student? Which areas seem to be commonly supported? What are the advantages and disadvantages of each model? All these questions are addressed under models of student support in chapter two, which is the next chapter.

CHAPTER TWO

A consideration of models of student support

2.1 Introduction

The realizations of some institutions of higher learning that graduates of quality have to be produced, has contributed to a development of a variety models of student support. All models were meant to accommodate a larger and a more diverse student population, and to equip them with knowledge and skills that will enable them to succeed in their studies.

"The evolution of student support has stimulated debate on a variety of issues ranging from the precise nature of learning programmes, of students in question to the appropriate role for academic support in the overall development of the university" (Hunter, 1989:68). Other issues for inclusion in this raging debate are the role student support programmes play in student development; the direction student support is taking; the nature of support; not excluding the learning practices that prevail in them.

Of interest are the learning practices that exist in these programmes. Understanding what learning practices prevail in these support programmes, demands that a background information about models of student support be provided, since student support occurs in the context of certain models. It therefore becomes imperative that various models are discussed first in this chapter in order to conceptualize them.

Models of student support are designed according aims and the driving forces behind support. It is crucial to reveal that the achievement of these aims is attempted through various models. The aims of the Academic Development Programme (ADP) may be viewed as existing in three areas. Firstly, to: ...maximize academic performance in students disadvantaged by the inadequacy of previous educational opportunities...(so that) they become learners who are critical, independent, exploratory, creative, and

effective in processing, organizing and communicating facts and ideas... (Academic Support Programme, Annual Report, 1987 in Agar, 1990:438).

Secondly, to attempt to ensure that the number of professionally qualified people from disadvantaged background increases. Thirdly, to contribute to the policies of the university through its insights and experience (Academic Support Programme, Annual Report, 1987, in Agar, 1990).

Over the past decade the focus of student support has shifted from targeting a certain racial group (Blacks), to catering for learning needs of all students and to supporting the instructional process.

Models for student support are varied and take a number of diverse forms. The programmes may be presented as bridging courses, foundations courses, orientation sessions, supplementary instruction, academic counseling, language support programmes, non-academic support programmes, study skills courses, mentoring programmes, peer support programmes (that's by fellow students). Some of these models are not credit bearing; while some models are generic, yet other models are subject specific. Some models address the academic needs of students, yet others focus on the social and emotional needs. There are models that target both the academic, the social and emotional needs.

2.2 Models of student support

Warren (1998) in his discussion of models of student support, divides them into two broad categories which are: semi-integrated, or separate intervention, and integrated intervention. It is for this reason that models will be discussed in order to throw light in what they entail.

2.2.1 Semi-integrated or separate intervention

The semi-integrated or separate forms of educational intervention targets non-traditional students. In South Africa this mean learners from historically disadvantaged settings. These are students who owing to prior socialization have not yet acquired or assumed knowledge desired for proficiency in English, learning skills or academic skills (such as formal argumentation, reading and writing) (Craig & Kernoff, 1995; Leibowitz, 1995; Mabizela, 1993; Nyamapfene & Letseka, 1995; Shay *et. al.*, 1996).

Such students, according to Warren (1998) often experience university as offering personal and intellectual freedom, while simultaneously being overwhelmed by the new social environment, academic culture and demands of study (e.g. task complexity, pace and volume of work, engagement with academic discourse). Warren (1998) argues that this can have a disempowering effect on their self-esteem, motivation and academic progress. Hence, special attention and intervention is provided to such students, the goal being to develop their language proficiency, study and academic skills and knowledge base.

The curriculum content that follows the semi-integrated or separate intervention includes intensive intervention, offered in advance of or alongside typically mainstream courses (i.e. regular courses which have relied on transmission modes of teaching to convey substantial bodies of content). Models for providing separate or semi-integrated intervention come in various forms. These are discussed below.

2.2.1.1 The Supplementary Tutorial Programmes (STP)

This kind of programme, states Warren (1998) comprises additional weekly tutorial or workshops, usually voluntary. The intervention runs concurrently with the mainstream course to which it is linked. The aim of the Supplementary Tutorial Programme (STP) model includes among other things:

- assisting students from under-privileged backgrounds to cope with the mainstream course;
- providing a separate, safe space for addressing their learning difficulties;
- developing study and writing skills; and
- clarifying key concepts; and elements of content.

Warren's (1998) experience with model is that it had a number of problems. The problems include:

- Erratic attendance and poor preparation for class, particularly when test, assignment or exam deadlines approached.
- Limited time for educational intervention in the STP, combined with the fast pace and heavy volume of mainstream work, inhibited deeper learning and real "development".
- Does not provide time and space necessary for developing students' cognitive and linguistic abilities.
- The already struggling students were overloaded with extra but non-credit-bearing tutorials, sometimes in several courses at once.

Despite the defiencies of the STP model, Warren (1998) has mentioned that it can be effective under certain conditions. One can say one of the conditions for efficacy is ensuring that it is credit-bearing.

2.2.1.2 Separate Language-Based Courses

Separate language based courses are also provided as another form of separate intervention. This model focuses on engendering critical reading and writing, and concept formation, using the English course or using material directly related to the students' other studies. In the past it was conceived as a writing-based general skills course for 'second-language" students educated in the former DET system. It has now evolved into a credit-bearing first year course in academic literacy (Kapp, 1994; Warren, 1998).

Warren identified the advantages and drawbacks of this model. Advantages of this model are that:

- It is credit-bearing;
- Skills are integrated with relevant content-rather than teaching decontentualized writing skills, the course strives to assist students to come to grips with language and writing practices of academic discourse;
- In contrast to the STP model; it provides the time and space necessary for developing students' cognitive and linguistic abilities;
- It does not necessarily imply an extended curriculum;
- The close contact with tutors and emphasis on small group work and active discussion may help students overcome their sense of marginalization and gain confidence to deal with the new academic environment.

Possible drawbacks are that:

- Transfer of skills may be limited by the need to incorporate a wider range of disciplines.
- Students may resent being placed in a separate course.
- This kind of course is suited to the needs of foreign-language students who arrive with general academic skills but require opportunities to build their vocabulary and command of English.

Israel (1995) criticizes language based support programmes on the basis that the support given to students is not in fact effecting deep level, long-term change in the learning patterns of students. Rather than empowering students to become critical thinkers, she stated that it fosters dependence on a nurturing and supportive environment outside the mainstream. Israel (1995) may be correct in her criticism, but in this study the researcher argues that tertiary students particularly second language speakers would always need support in language because language problems will stay with them for some time since the majority of them are not native speakers of the language.

2.2.1.3 Extended first-year courses in disciplines

The extended first-year course in disciplines is another type of semi-integrated or separate intervention. In this model first-year teaching in the discipline is spread over two years. This model is also describe as a "slow intensive' type. This programme allows for additional tuition. For example, in a case of language, students would attend mainstream lectures (in year one) and literature (year two), but met separately in two or three 'supporting classes per week, where the emphasis would be on fostering their oral and writing skills (Warren, 1998). In addition to these features of the model, Warren (1998) has identified positive features and drawbacks.

Positive features of this model are that;

- It is credit-bearing
- It caters for students from disadvantaged backgrounds without removing them entirely from mainstream classes;
- It creates additional time and space to include essential background knowledge and develop necessary skills;
- The model also offers students alternative access to disciplines.

Major drawbacks is that:

- It prevents students from being able to major in a subject within the usual time since it implies an additional year of study in the discipline.

2.2.1.4 Foundation Courses

Support may also be provided in a form of foundation courses. Foundation courses may be understood as "bridging" courses in a sense that they attempt to redress gaps in knowledge and limits in communicative and learning skills. On the other hand, the term could mean laying foundations for further study, such as "forward looking" entry-level courses to introduce students to key academic concepts and ways of knowing. A

foundation course is a foundation for further study, particularly for learning (Grayson, 1994). Jack (1996) sees the merits of the foundation course as providing an accelerated accumulation of skills and understanding learning of the processes required for learning, so that students have better grounding in "new education".

A distinction is also made between a foundation "year" and foundation "programme". A foundation "year" often implies an initial "bridging" year of specially designed courses, with the rest of the curriculum left largely intact (the "fix-it-all" model). By contrast a foundation "programme" may combine the "bridging-type" courses with mainstream courses, and may extend beyond the students first year of study. The foundation year is criticized due to the fact that students who have gone through this model, as indicated by research (Jack, 1996) frequently fail to transfer to other areas of their curriculum skills and knowledge taught in isolation. For this reason a "flexible" foundational model is favored at other universities. This model according to Jack (1996: 68) allows students to make up their own programme package, according to their needs and proposed majors.

2.2.1.5 First year extended courses

Current separate intervention approaches have limitations in that they serve students from historically disadvantaged setting only and exclude other students who might need support. Most of the models under this separate intervention approach are very limited in their focus. For example, there are programmes for linguistic and cognitive problems only; study skills only, or non-academic problems only. For the present study an integrated approach or holistic approach should be considered where in all the learning practices should be incorporated simultaneously in a programme in order to help students cope with the academic and non-academic demands of the university.

Besides this limitation, one can argue that this approach – (the models included in this approach not excluded) has valuable role to play in making students conscious of the nature of the academic discourse. The considerable strength of separate intervention

approaches lies in that it allows students time and an opportunity to come to terms with their short-comings as well as academic demands.

2.2.2 Integrated intervention

In integrated intervention, the target group is all students (particularly undergraduates). Here the assumption is that learning in higher education is a complex social cognitive process of discovering and internalizing – perhaps even contesting the sub-cultural roles and knowledge-making rules that characterize the various disciplines or fields of study. The goals embrace the explicit fostering of students' academic learning and communication skills, and understanding and application of concepts, theory and method in short, the "academic development" of students.

The integrated model of student intervention is very comprehensive in its approach to student concerns. This approach reveals that the issue of student learning in higher education is a complex social cognitive process of discovering, contesting sub-cultural roles and knowledge making rules. Inherent in this assumption is that, intervention approaches must involve more than addressing student deficits, but go further to enable students apply knowledge and skills in different contexts. This model of intervention recognizes the importance of cognitive and social processes in learning and thus prepares students for specific demands of Higher Education (HE).

The integrated intervention's considerable strength lies in the fact that it represents a shift from viewing student intervention as a means of supporting students to viewing it rather as a means of developing students. In this approach students are not perceived as "patients in need of care" but as individuals capable of caring for themselves from the level of strength rather than weakness. This model is therefore suitable for the present study which seeks to look at the prevailing and the preferred learning practices in support programmes. It provides a basis for devising information about preferred learning practices. The implication of this model is that it is useful in identifying the nature of

student support and in finding out if there are any factors which influence students' perceptions of prevailing learning practices and preferred learning practices.

Models of integrated intervention are discussed below.

2.2.2.1 Supplementary Instructions

The integrated approach to educational intervention comes in varieties. Supplementary Instruction (SI) is one of the models of the integrated approach. Damerell (1988) stated as early as 1988 that the Supplementary Instruction Model is fairly well known in Academic Support Programmes. Supplemental instruction was developed at the University of Missouri Kansas City (UMKC) as a student academic assistance programme (SIC) that increases student academic performance and retention (Martin, Arendale & Associates; 1992 : 3). Damerell (1988) describes it as an outreach programme. She explains that the descriptor "outreach" is applied because services are offered within the context of selected academic courses and in an available classroom space instead of within the confines of the Learning Centre. Spencer (1994) proposes the following features as essential elements of any student focused SI programme within the South African context:

- SI is targeted at historically difficult courses;
- SI is available to all students;
- Attendance at SI is voluntary;
- SI is not remedial;
- SI is pro-active;
- SI focuses on the integration of academic; skills development (the process of learning) with course content mastery;
- SI is about co-operative Small Group Learning;
- The SI leader is not involved in assessment;
- Data about student attendance at SI is kept confidential;
- The SI programme is supervised by a trained staff member;

- The programme is offered only in classes in which the faculty member invites and supports SI; and
- SI does not create any additional work for lecturers.

Spencer (1994) identifies two models of Supplemental Instruction (SI). These are the SI – a student development focus and the SI – the curriculum development focus. According to Spencer (1994) the SI – student form is limited to only one subsystem of the institution – the student, and has little or no impact on the mainstream activities of the institution. He (Spencer, 1994) further states that this form would be located under an Academic support framework. Spencer (1994) explains that the SI –curriculum development focus would be located under an Academic Development framework as it forms part of the larger process of the mainstream curriculum.

The SI form that focuses on student will be discussed. The SI – a student focus that will be discussed is largely adopted from the original American model but has aspects of the United Kingdom where lecture attendance is not viewed as an essential. The rationale for each key feature of the student SI is provided within the South African context by Spencer (1994).

The author stipulates that SI targets historically difficult courses in order to avoid problems associated with identifying students who are at risk academically by intervening at systematic rather than at individual level; SI also targets all students because all students whether White or African are "dependent on the teacher for what is learned, when it is to be learned, how it is to be learned, and if it is to be learned" (Knowless, 1980; in Spencer, 1994); the voluntary nature of SI confronts the wary student who shuns taking on voluntary responsibility; SI sessions are held in the geographic domain of the department to which SI is attached to ensure that it does not bear a remedial label; students are offered opportunity to receive assistance before it is too late – thus the SI is proactive than reactive; SI seeks to offer develop students' academic skills within the universities mainstream activities; co-operative small group learning results in more positive attitudes towards subject areas and higher achievement

in mastery of facts, information and theoretical concepts among others; the SI Leader is not involved in assessment in order to ensure that the power relations between the students and the SI leader are minimal; attendance data is not given to lectures in order that the cooperative nature of small discussion is not negated; the SI Leader receives training in order to be familiar with content and the process of learning; the SI coordinator should be trained in order to fully understand the nature of SI and the management of the aspects of implementing an SI programme.

From Spencer's (1994) rationale for each key essential elements of SI, it can be seen that the rationale for his choice was motivated by the advantages he observed in the supplemental model. It its very obvious that he wanted the model to be acceptable to both students, SI-Leaders and the lectures. The fundamental features of the SI model according to Davis and Vorster (1994) is that it is voluntary, non remedial, students-driven, cost effective and focuses on high-risk courses rather than high risk students. It is a student development programme based on peer collaborative learning, the underlying principles of which is that students assist each other to learn. The advantages of this model are that it develops student responsibility because it is voluntary. The model develops students rather than supporting them.

2.2.2.2 Mentoring

Mentoring is one of the many models of student academic support which follows the integrated approach. The concept student mentoring is an extension of the philosophy of academic support, the philosophy that started in historically White universities when Black students started enrolling in these institutions. According to Ntombela, Ogram, Zinner, Tshabalala and Majola (1994:450), "the student mentor programme starts from the premise that Black students in general and those who come from deliberately deprived socio-economic background (especially the rural areas), find the university alienating in many ways. First, they have to find their way around campus, often interacting with people belonging to other race and cultural groups and in foreign languages. Often nobody in the new students' family has ever been to a university and,

therefore, they cannot use their families as a resource. And, above all, most departments in our institutions are not user friendly. It is at this interface that the student mentor becomes useful".

The concept of mentoring is not only confined to historically white institutions, but applies in all academic contexts because students with learning problems are found in almost all tertiary institutions. For this purpose, senior students are targeted and trained to offer academic and social support to first entry students (Dinath, 1998). Psychological and personal support may also be provided to mentees. Psychological and personal support may be provided in a form of one-on-one counselling in which mentees share problems and areas of difficulty with the mentor, after a positive relationship has been cultivated. The notion of peer counselling is premised on the idea that students often have little access to, or inclination to seek, psychological support from professional services such as student counselling centres. Instead they find other students approachable to assist them with their difficulties (Mahatey, Kagee & Nadioo, 1994 : 364).

The student mentor programme runs along SI lines in so far as it uses the concept of students helping others with learning problems. However, there are fundamental differences between the student Mentor Programme and SI programme. Ntombela, Ogram, Zinner, Tshabalala and Majola (1994) identify the following differences between the student Mentor Programme and the SI programme:

- The student mentor programme does not insist that mentors sit in on all classes while the SI programme insists on that ;
- The emphasis on the student mentor programme is not only on academic content but, also on empowerment of both first year students and senior students themselves. The SI on the other hand focuses on academic content and empowering first year students only;
- The student mentor is trained to be a resource in the department: not to re-teach what academic staff members have taught, but to help junior students to develop skills to

deal with their learning problems. In the case of SI, the SI leader finds himself/herself having to re-teach what academic staff members have covered.

Besides the difference between the student mentor programme and the SI programme, there is also difference between mentoring and other models of support. Rather than focusing on specific academic support in a form of smaller group sessions and many lecturers, the student mentorship programme is holistic in approach in that it offers psychosocial, personal and academic support. In other words it does take into consideration that students have diverse problems and diverse needs which impinge on their learning and that all these need to be attended to simultaneously for students to maximize success. An added advantage of at the mentoring programmes, (besides the one already mentioned), is that it provides first year students with role models. Mentoring programmes also inculcate confidence among junior and senior students. The disadvantages of this model might be time constraints for both first years and the mentors; and students expecting the mentor to re-teach the course.

2.2.2.3 Adjunct language-based programmes

We also find language intervention models of academic support. The adjunct language-based programme follows the integrated approach to educational intervention. Here language and content are integrated.

The focus in this model is on developing reading or writing skills through tutorials tied to a credit-bearing course or via tasks in the discipline (Warren, 1998 : 81). Angelil-Carter (1994) furnishes information for the rationale of the adjunct model. She (Angelil-Carter, 1994) writes that an important rationale for the adjunct model is that of motivation. She argues that content provides a primary motivational incentive for language learning in so far as it is interesting and is of value to the learner and therefore worth learning. The assumption, according to her, is that because language is tied to a content course, the student will be motivated to learn.

Another aspect of the rationale for the adjunct model is that of transfer. The assumption is that integrating language with content is seen as one way of dealing with the transfer problem, that is developing strategies and coping skills which will transfer from one discipline to another (Brinton, Snow & Wesche, 1989). Authenticity is another frequently cited rationale for the integration of language and content. Angelil-Carter (1994) argues that authentic texts are used, and language is taught in an authentic way.

One advantage of the adjunct model, is that, because language is tied to a content course, students will be motivated to learn the language. Another advantage is that a linked course will assist students in developing academic coping strategies and cognitive skills, which will transfer from one discipline to another. Though the adjunct language-based approach has strengths, weaknesses have already been identified. For example, Angelil-Carter (1994) has observed that this model deprives students of mindful abstraction since it is tied to only one subject. Also identified is it's narrow focus on particular skills (e.g. report writing) to the neglect of others (e.g. research skills). Other problems identified do not relate to students, but to the staff and the status of the English language. It is revealed (Angelil-Carter, 1994) that usually there is problem of collaboration between the content lecturer and the language specialists and that the status of English changes from a subject on its own right to a service industry of other specializations.

Besides a few identified constraints, adjunct language-based programmes may provide an accelerated accumulation of language skills and processes required to master language proficiency. This will be one way of overcoming some of the problems which are the results of a disadvantaged schooling as well as not speaking English as the first language.

Besides the individual model's or semi integrated models' shortcomings which outweigh its strengths, it was adopted together with the integrated model which was seen to have a number of strengths. The reason was that both models accounted for the nature of learning practices that are provided in a support programme. The study sought to consider all the prevailing practices in student support and therefore considered all the approaches and models that prevail at the University of Zululand. Students' perception

about the prevailing learning practices was derived from both approaches and their models, as both were useful for achieving the aims of the study.

2.3 Summary

It has transpired from the preceding review of literature that students support comes in various models and types. Arguments about advantages and disadvantages of each approach to support have been provided. Since this study is concerned about learning practices of students, it is then important not only to look at support models that exist, but also to look at empirical studies on learning practices in student support programmes. These studies will not only enlighten the researcher on what has been done in the field of student support but the studies will expose the researcher to good and bad practices of support among other things. Empirical studies revealed how students perceive student support. The empirical studies on learning practices in students support programmes will be discussed in chapter three.

CHAPTER THREE

Empirical studies on learning practices in student support programmes

3.1 Introduction

Investigations on support programmes have been carried out in South Africa and elsewhere. Studies in South Africa concentrated mainly on academic support, while other countries focus mainly on social support. Investigations from other countries (Massachusetts and Indiana in the United States of America) are also pertinent to our situation as students in our country experience problems of a diverse nature. The study looked at prevailing and preferred learning practices, so all relevant information of what is prevailing learning practice is of importance and useful. Literature on the nature of student support was reviewed. This included studies pertaining to aspects such as knowledge acquisition, mastery of academic and social skills. Literature on students' perception of university support programmes were also reviewed.

3.2 Studies on the nature of student academic support programmes

Students at tertiary institutions are confronted by a number of demands. Among the demands facing these students is the need to improve their language of communication (English 2nd language) and to correct a number of their language errors not excluding other problems (Shay, Bond & Hughes, 1996).

Programmes of intervention that address these issues whether in an integrated approach or semi-integrated in approach do address some of these problems.

Various studies have been conducted worldwide on student support and language. It must be borne in mind that language and thought cannot be separated so some studies will involve more than language. Most studies conducted on language are a pointer to the areas in which students need to be supported. These studies provide an insight into

the nature of support when using language-based programmes. In a study which focused on language difficulties of Black (Bachelor of Science) students, Jiya, (1993) scrutinized a sample of groups of first year students at the University of Fort Hare in the years 1987, 1989 and 1991. A response format utilizing a three-point Likert type scale of responses ranging from Yes (Agree), No (Do not agree) and Uncertain was used in 1991 to answer questions. The aim of the study was to identify whether students need academic support in language or not, since it was assumed that they have language difficulties which impact on their performance in natural science.

Results showed that students do have difficulties with language in general. The issues related to English as a tool for expressing ideas was emphasized. In analyzing responses it did appear that most difficulties were related more to the use of language as a tool in communication and in expressing oneself than with English in particular. It appeared that difficulties had to do with the formats in which students gather and formulate information and data in order to present thoughts and conceptions. It also became clear that language skills have to be taught and habits inculcated through ongoing guidance during the course of the year in less intimidating circumstances than during examinations and major tests.

The findings of the above study indicate that although students accept that English is a contributing factor in the learning and understanding of natural science, a significant majority (65%) maintain that English is not the main obstacle to better performance in natural sciences and would not recommend that it be made compulsory, that first-year students do a formal and standard English as part of the B.Sc. curriculum. The study did establish that the majority of students accepted that there is a problem that could be solved by advising students to undertake further refining of their competence in language. This study is a pointer that when addressing the issue of language, it must be addressed in relation to what students perceive as their need. The study highlights the importance of intervening at the point of cognitive interaction in order to encourage the appropriate use of language and to design novel situations and activities, during learning interaction, which encourage natural communication patterns. A warning is sounded though, to those in Academic Support programmes (particularly at traditionally black universities), that

when they locate students' problems, they must look somewhere else as well besides English, in order to maximize the performance of those students who speak English as a second language. The factor of intervening at point of cognitive interaction has been identified by other researchers locally (Craig & Kernoff, 1995).

Craig and Kernoff (1995), studied the development of textual interpretation by under-prepared students who were receiving academic support. The development was traced from the state of under- preparedness to one of increasing preparedness through students' active engagements with texts. Awareness of students inappropriate epistemic assumptions, poor metacognitive skills and inadequate abilities to interpret texts and the interrelated natures led to the design of an intervention programme and text. The subjects were 42 first year university students. They were tested on close passage using repeated measures design. Results showed that at the end of their first university year, under-prepared students' interaction with and interpretation of texts had improved significantly. A conclusion that was drawn from this research was that as a result of both the opportunity to engage in texts and the intervention at epistemic and metacognitive levels, students' reading ability improved significantly, including their use of linguistic cues, the integration of prior knowledge with text and accuracy in the understanding and meaning of a text. The factors identified as having improved in these under-prepared students are of consideration for constructing appropriate educational intervention programmes which will enable students to engage effectively with university tasks.

A study (Nyamapfene & Letseka, 1995) was conducted on problems of learning among first year students in South African universities. To assess the nature of the cause of learning problems an informal survey was carried out by questioning staff of different faculties of one university to find out whether the problem has occurred there, and if so how widespread it was. Results of the analysis of responses showed that the problems of learning among first year students can be grouped into the following broad categories: failure to understand concepts and principles; failure to appreciate the difference between capture of information and knowing it; failure to develop appropriate study skills. These identified factors, except study skills are similar to those identified by Jiya (1993) who

studied language difficulties of Black BSc. students. Beside this fact, both Nyamapfene and Letseka (1995) and Jiyas' (1993) studies reveal that before proper support can be provided it is a good idea to establish what students' problems are. The studies (Nyamapfene & Letseka, 1995; Jiyas, 1995) have a bearing in on the nature of support that should be provided to some students at risk at tertiary institutions.

Moll and Slonimsky (1989) did an investigation on understanding of cognition and learning in the context of academic support. The participants were Bachelor of Education (B.Ed) students. The data was collected by means of interviews and questionnaires. The researchers in this study raised their concerns about how cognition and learning of students in ASP is understood and interpreted. They also appeal for a cognitive theory which will avoid the suggestion that all ASP students lack the cognitive structures on which university performance depends but at the same time will explain how and why is it that they find it difficult to mobilize the appropriate contextual skills adequately in a university context. From the study it emerged that there are three possible ways of understanding cognition and the learning problems in the context of ASP students. These are that these students remain at a fundamentally concrete level in their thinking; they find themselves incapable of translating their abstract understanding into another language, thus the appropriate ASP interventions here is a linguistic one; they have both the requisite abstract cognition and sufficient linguistic competence to access the way that knowledge is structured and presented in their course, but they do not do so.

Various studies have been conducted in South African universities with the aim of reporting what has been done in the area of academic development and language. Morphet (1994) in his explorative study described current Academic Development (AD) programmes in the English Department at the University of Cape Town (UCT) outlining growth and changes from 1983 to 1994. The data about the AD was collected through questionnaires and interviews from staff, students and tutors. Emergent problems and patterns are indicated in this study. Among the problems identified were pressure on students. Most students, as revealed by this study, resorted to inappropriate methods of study that gained them good marks at school because of anxiety about failure and

exclusion. It was also reported that they often appear weary, despondent, reluctant to read texts or participate actively, desperate for learnable notes, almost appealing for authoritarian pedagogy. It further mentioned that staff, instead of being helpful to these students by devising strategies for meaningful learning they tend to blame students for being passive and lazy. Morphet (1994:14) concludes by highlighting that "AD works with students need to balance firm and clear guidelines with flexibility". Another important issue mentioned by Morphet is that it is a mistake to think that the previous year's programme can simply be repeated and that different groups in the same year will respond in an identical way. What is also implied is with regard to the peculiar needs of each group of students to which the programme must be tailored and not just to assume that "one size fits all" one programme can meet the needs of all students. Such issues are important when, considering which aspects need to be included when designing an academic development programme.

Angelil-Carter (1994) conducted a study on cognitive mapping. The aims of the study were to investigate student's approaches to and uses of mapping strategy and whether mapping is transferred to the mainstream courses. The study draws particularly on Vygotskyan theory to present a rationale for why mapping can be powerful learning tool. The findings of the study revealed that mapping is a valuable strategy for all learners, in particular those learning in a language which is not their home language. The value of mapping for inclusion in student support is considered as an important vehicle for creative thinking, brainstorming and bring prior knowledge to the surface.

Shay, Bond and Hughes (1996) undertook a study into student writing by three students at the University of Cape town. The aim of the study was to understand causes underlying poor writing. The study originated from an assumption that serious writing problems emanated from disadvantaged education background or from students who speak English as a second language, and that these students need to be helped with writing skills. The study was explorative and the interviews were also used. The explorative study revealed that for most students fulfilling the demands of an academic

writing is not a simple process and that students need to be supported to go through the process.

The above study (Shay, Bond & Hughes, 1996) suggests that with writing tasks there is no dividing line between 'under-prepared' and 'prepared' students. Important to note about this study is that the investigative research into students need to test assumptions about them is conducted with them.

In what is probably the first study that looked at learning experiences of postgraduate students, Leibowitz (1995) attempted to explore the notion of academic preparedness in the context of support by using a sample of 20 postgraduates. The study dealt with preparedness in relation to the topic of academic writing or academic literacy, such as confidence to critique and argue, as well as the ability to manipulate the conventions of academic writing and language. This exploration of what students bring at the university and how they experience acquiring academic literacy suggests that there is much that is possible with regard to teaching innovations in order to support student' acquisition of academic literacy. Further interviews conducted on academic literacy suggest that attempts to study student development cannot be given at one level only, such as first year, since writing develops incrementally sometimes unpredictably and in response to the demands a student encounters.

The studies (Leibowitz, 1995; Shay, Bond &Hughes, 1996) shed light into the nature of learning practices and in relation to the fact that student support should not be limited to first year only, and that students' needs cannot be addressed within a specific period due to the uniqueness and diversity of students' learning needs of their students.

Most studies on academic support were conducted in South African universities, in particular those, which have or had fully, fledged support programmes. There are however studies conducted abroad but the area of focus relating support is somewhat different from that of our country. In United States for example a remarkable study (Ortiz, 1995) on enhancing student development in community colleges was conducted.

The study analyzed student development theories and their application to different community college student populations. The study drew its sample from four categories of students: the underrepresented; transfer-bound; non-traditional aged; and vocational education. The study's findings reveal that each group of students at community college has unique developmental needs and experiences. A suggestion is made that when students professionals administer and create programmes it is important that they are well-grounded in development theory so that they all work toward the same goal. The assumption is that student success has a common philosophy and base of operation.

Will (1999) conducted a study on academic support and culture. The aim of the study was to look at the impact of culture on learning styles. The study was conducted on a sample of students of different cultures. The study has documented that there is a relationship between successful academic support and cultural diversity.

A study conducted in Massachusetts (Singleton, Royce & Garvey, 1982) looked at how to foster a sense of community and intellectual engagement among students and faculty through a support programme called First-Year Program (FYP). The emphasis of the programme was social justice and the connections between intellectual and moral life. About forty faculty members (volunteers) drawn from Physics, Sociology, English, Psychology, Philosophy, Religious Studies and Mathematics planned the programme. Results show that students who attended FYP expressed favorable opinions about facets of the programme, including the co-curricular events, their specific courses, the theme and the general intellectual atmosphere.

A study of the effectiveness of the college retention programme in Indiana was conducted (Dale & Zych, 1996). The main purpose of this study was to demonstrate the impact that a comprehensive retention programme can have on college retention and graduation rates. This study also sought to verify the impact of student support services. The study implemented a matched-pairs design. All students in the study were either from the low-income families, first generation college students, or physically disabled students. The programme was designed to address both cognitive and effective needs of the first year

students under study. The study found differences in the retention of those students who received services through the student support programme compared to a matched group who did not participate in the programme.

Carroll and Tarasuk (1991) in their study describe an approach to student development services in American community colleges called Development Guidance and Counselling Model. Historic trends and changes in student development services were discussed. A conclusion was drawn that a student service model at the community college, which emphasized a developmental approach, was a viable concept. It is stressed in the findings that a new model should rest on theories of human development and learning.

It is apparent from the aforementioned studies that both studies in South Africa and those abroad design their support programmes according to the needs of their students. Of interest is that few studies abroad focused on the issue of language. The studies focused more on the issue of emotional, cultural and diversity support. These studies made a major contribution to present investigation.

3.3 Studies on students perceptions of university academic support programmes

An evaluation of whether or not a support programme is meeting the needs of students is necessary. The definition of evaluation encompasses the notion of whether or not educational aims are being achieved (Agar, 1989). An integral facet of the success or failure of an educational programme is located within the perceptions of its stakeholders (Pavlich, Orkin & Richardson, 1995). One of these stakeholders is the student.

In a study Pavlich, *et al.,* (1995) conducted at UCT on first year students, students were asked to air their views about ASP. Data was collected through interviews and questionnaires. Students, generally found the skills learned to be extremely helpful. On the contrary they displayed a strong resentment about the way in which ASP singled students out. They felt that this stigmatized them and made them feel stupid. Stigma was felt more strongly in respect of non-credit (e.g. bridging) courses. Students reckoned that

they felt marginalized and alienated from the university and hated being labeled and being monitored.

Haiden (1999) conducted a study on students' perceptions of academic support designed to counter the effects of under-preparedness. Students' perceptions of support offered in the first year course were collected by means of a questionnaire and interviews. The questionnaire comprised 45 questions: 19 questions concerning compulsory tutorials and tutors; 18 questions concerning consultations; and 8 questions concerning ADP. A five-point Likert scale was used with 5 being the most positive and 1 being the most negative. The ADP questions were divided into three themes, namely perceived contribution to academic literacies; perceived increase in knowledge and interest; and perceived effect benefits. A semi-structured interview was conducted with five students in order to gain clarification on the issues arising from the quantitative questionnaires and to probe for a laboring detail. Frequencies were calculated for each question. The positive response frequencies were then calculated. This was done by adding the two positive responses together (options 4 and 5). Students perceived ADP tutorials in a positive manner than the compulsory tutorials. The effective benefit of the classes was perceived as the most positive aspect of ADP, with the focus on language skills being perceived as the least beneficial.

Colborn, Leon, Whittles and Colborn (1994) conducted a study on the UCT medical academic support programme (MEDSAP). This programme was aimed at meeting the academic, social and possible financial needs of students who are identified as having the potential to achieve. An ongoing assessment of the programme took place from the year 1991 to the year 1994. Assessment was achieved through questionnaires, interviews and workshops with teaching staff, students, tutors, and mentors. The general aim of these survey and workshops was to assess the needs, and perception of those involved in the programme. The researcher is particularly interested in the findings of the students perceptions not those of other stakeholders and will therefore focus on these. The results presented were for the students' perceptions of the course: Introduction to Medicine A for the year 1993. A survey was undertaken by means of a questionnaire which was handed

out to students. Students were asked to indicate their own perceived improvement in the following areas: speaking in class; understanding speech and note taking; scientific writing, contribution of group work to learning; change in study methods and usefulness of question analysis and feedback for revision. The results indicated that the great majority of students found MESAP helpful. In addition, the results revealed that students found that sections focusing on scientific writing, reading academic texts and understanding speech and note taking, the most useful aspects. Overall, the students felt that as a result of the teaching methods used in MEDAP, their study methods were enhanced and that they had been challenged to express whether or not they understand the work. The link between this study and the previous one (Haiden, 1999) is that both studies give students an opportunity to express their views about aspects of the programme though some areas of concern differ. The overall impression about both programmes is that students perceive both programmes as helpful. Regarding Haiden's (1999) study the effective benefit of the classes was perceived as the most beneficial aspect of the ADP, while with Colborn *et al.,* (1994) students felt that it is as a result of the teaching methods used in MEDSAP that their study methods were enhanced.

A study (Lessing & Schulze, 2002) was conducted on perceptions of post-graduate towards academic support. This was the survey research. Students who had completed MEd and DEd degrees were targeted. A total of 185 questionnaires: 111 of which were for MEds and 74 were for DEds were mailed. The questionnaire consisted of both closed-ended questions (for quantitative data) and open-ended questions (for qualitative data). Besides biographical data, the questionnaire comprised of 17 statements where students had to rate the support or guidance they received from their supervisors or promoters. Finally the questionnaire consisted of three open questions aimed at determining students' perceptions of the most rewarding aspects of the study and what they would recommend for post-graduate supervision. The study revealed that students felt that their expectations were not entirely met regarding some aspects of supervision. Though the study was about support provided in a form of supervision, the study did link with the previous ones (Colborn *et al.,* 1994; Lessing & Schulze, 2002) in that the studies

acknowledge the fact that students as stakeholders in the support programmes must be afforded an opportunity to evaluate the effectiveness of the programmes.

In another study conducted by Davies and Vorster (1994), students were requested to evaluate a Supplementary Instruction- non remedial academic support which was piloted at the Faculty of Law at Rhodes university. These subjects were first year students. The comprehensive evaluation of the programme included reports from SI leaders, students' evaluation questionnaires and semester reports by coordinators. All the students' respondents interviewed indicated that the programme had successfully provided opportunities, which were not available within the wider teaching and learning context of the university. Also revealed was that students expressed a need for the programmme to be extended to other faculties so that benefits of the programme could be made available to all students in the university. In this study the relationship between SI leaders and SI students determines whether the programme will be perceived positively or negatively. This makes this study unique when compared to the other studies already cited – because the SI's sensitivity, the attitudes, the academic foundation, are determinants of the students success or failure, besides the fact that students must develop responsibility towards their learning.

It is, however, noted with concern that there is very limited research in the area of students' perceptions regarding academic support. The present study has identified this gap and hopes to close it by exploring this area.

3.4 Studies of factors influencing students' perception of university academic support programmes.

Although studies have been conducted on academic support, research is limited on factors influencing students' perception of university academic support programmes. The researcher is not aware of any study that has been conducted in this area. The researcher seeks to establish which factors affect students' perceptions towards academic

support. Factors such as age, gender, year level, faculty, can be considered for inclusion in the questionnaire.

The present study intended to establish what perceptions students have about the prevailing learning practices in student support and in addition establish what learning practices students desire to prevail in their support programmes.

3.5 Summary

It has transpired from literature reviewed that the issue of students' support is of concern, locally and abroad. This is mainly due to the fact that under-prepared students pose a problem internationally. Empirical studies on the nature of academic support and perceptions of academic support have been provided. In the next chapter the research design and methodology of the study will be detailed.

CHAPTER FOUR

Research methodology

4.1 Introduction

The introduction of student academic support programmes (ASP) to assist student overcome their problems of underpreparedness for academic work, has been an acceptable practice in most institutions of higher learning internationally and locally. In South Africa, however, there have been reports that students who have to receive academic support reject or take it reluctantly (Tema, 1988) and that students believe that those who think that they have a problems, have problems themselves (Makaula, 1990). Literature reviewed reveal that different models of student support exist and that many practices prevail in these programmes. It was thus decided to undertake the present research study in an attempt to evaluate the prevailing learning practices in a support programmes in order to identify students' perception towards ASP.

In addition, the researcher sought to propose a model for academic support. The study further attempted to gauge students' perceptions of how they wanted the support programme to look like in future.

4.2 Aims of the study

The study aims to answer the following questions

4.2.1 What is the nature of learning practices that are prevalent at the University of Zululand support programme?

4.2.2 Which learning practices are preferred by students?

4.2.3 What will be students' perception of prevailing and preferred learning practices in university academic support programmes?

4.2.4 Which factors influence students' perceptions regarding the prevailing and the preferred learning practices in university academic support programmes.

4.3 Research design

Research design is the logical strategy of the study. It deals with the plan developed to answer a question, describe a situation, or test a hypothesis; in other words, it deals with the rationale by which a specific set of procedures, which include both data collection and analysis are expected to meet the particular requirement of the study (Kahn, 1975: 48). Ary, Jacobs & Razavich (1996) outlines two types of research design namely *experimental and non-experimental research.*

The present study falls into the category of non-experimental research design of descriptive research. According to Ary *et al.,* (1996) descriptive research reports things the way they are and does not involve manipulation of the independent variables. In this study the researcher intended to report about the present state of learning practices and to look at future learning practices. The descriptive design seemed appropriate in achieving this aim, as it enabled students who have participated in academic support progammes to describe the phenomena adequately. The descriptive design also allowed students to voice their expectations about the future support programme.

A number of studies conducted locally, for example, (e.g. Hartman, 1989; de Villiers & Rwigema, 1998; Jiya, 1993; Leibowitz, 1995; Morphet, 1994; Cilliers & Sternberg, 2001; Starfield, 1992) have used this non-experimental design of the descriptive type. Some researchers abroad (Dale & Zych, 1996; Ortiz, 1995; Tillema & Koster, 1990; Will, 1999) have also used this research design in their studies of student support. Descriptive research seems to be frequently used in studies of academic support. It might be because

it deals with the present or current status of the phenomenon under study and does not manipulate the independent variable.

It was felt that the only way in which recommendations can be made for coming up with a model of future support was to study the present state of learning practices and on the basis of this, plan a programme of the future

4.4 Population and sampling procedure

As regards the aims of this study it was anticipated that using a purposive sample was suitable for this descriptive research. This technique involves collecting data from information-rich participants about the phenomena under investigation. The key target group to provide relevant and up-to-date information about learning practices in student support programmes, are students who have interacted with academic support. Previous studies (Hartman, 1989; Nolte, Heyns & Venter, 1997;Smit, 1986; Starfield, 1992) on academic support have used purposive sampling in the field of academic support. Most studies (Cilliers & Sternberg, 2001; Hartman, 1989; Jiya, 1993; Leibowitz, 1995;) target first year students as participants in the study of academic support. A few studies (Leibowitz, 1995) have targeted other levels (post-graduates). Very few studies have focused on all students who have interacted with academic support. The researcher chose to draw the sample from any undergraduate students who have undergone academic support. The reason was that students who would have interacted with academic support would have a view about prevailing practices and would be able to provide insight about what, is considered as preferred learning practices. One hundred and twenty (120) students from faculties of Arts; Commerce, Laws and Administration, Education and Science were involved. These were both males and females. Their ages ranged between below 20 years to 50 years. This study excluded first year students as they were still in the programme.

The study aimed to look at the prevailing and the preferred learning practices by students at the University of Zululand. It was hoped that the study would provide answers to the research questions.

4.5 The method of data collection

In this study students were identified as being important sources of information. It was decided to use a questionnaire rather than interviewing procedure to collect data as the latter would be time-consuming.

In addition, the experience of Kerlinger (2000) and Bailey (1992) was used as a guide. According to these authors questionnaires are commonly used to gather rapidly and inexpensive information regarding attitudes, opinions or factual situations in a given field. They argue that a questionnaire supply a structure of uniformity and allow for more organized analysis of data. The authors conclude that the use of questionnaire method requires that subjects be literate. These strengths encouraged the researcher to choose a questionnaire.

In this field some researchers have used a questionnaire method to collect data (Moll & Slonisky, 1980; Jiya, 1993; Colbron, Leon, Whittles & Colbron, 1994; Haiden, 1999). A questionnaire method was used in this study for a similar reason. The questionnaire enabled the researcher to derive details on prevailing and preferred learning practices in academic support programmes. The researcher included learning related items in the questionnaire.

4.5.1 Questionnaire construction and the open-ended questions.

The questionnaire included fixed response items and open-ended questions and consisted of 3 sections. The first part, section A, covered biographic data. Students who have academic support might be males and females. They come from different age groups, different year levels and different faculties or schools. These variables: gender, age, year

levels and faculties or schools might influence the students' description of their university student support as they perceive it and how they prefer it to be. It is for this reason that the variable of gender, age, year level and faculty or school had been included. Students were asked to make a cross in the appropriate space provided to indicate gender, age faculty, and year level. The second part (Section B) consisted of fixed response items related to prevailing practices (my academic support at the moment) and preferred learning practices (the way I would like it to be). Items of section B were divided into two components. The first component which is the academic component consisted of 18 items. The second component namely personal support consisted of 22 items. A five point scale was used. The respondents were asked to indicate how much they like their university academic support presently and how they would like it to be in future by responding to the listed statements. The rating scale gave them an instruction to assign a value of 1, 2, 3, 4, or 5 to the given characteristics by encircling the appropriate number in both section A and B. The values represented the following: exactly like this (5), somewhat like this (4), not sure (3), not like this (2), not this at all (1).

Jiya (1993) and Haiden (1999) also used a Likert Scale in their studies of student support. Jiya (1993) used a three-point Likert scale responses format labelled Yes (Agree), No (Don't' agree) and Uncertain. Haiden (1999) on the other hand used a five-point likert scale responses format, five being the most positive and one being the most negative. The questionnaire comprised 45 items covering of three themes. The researcher decided to follow in the footsteps of Haiden (1999) and used a five-point scale response format instead of a three-point scale response format used by Jiya (1993). The researcher chose to use a five-point scale response format to in order to 'permit an unlimited number of answers" Neuman (1997 : 293) and to allow for greater sensitivity. The five-point scale response format was also used in order to 'alleviate the problems of restricted range and guessing" Neuman (1997 : 293). The three-point scale response format does not allow greater sensitivity. In addition, it allows for guessing by subjects, so it fell out of the researcher's choice.

Section C consisted of open-ended items. This section was intended to provide an opportunity for additional information about the phenomena under study. Lessing and Schuilze (2002) in their questionnaire which consists of 17 open-ended questions (for quantitative data) also included open-ended questions. Most researchers use open-ended questions in order to allow the respondents to answer adequately in all the details they like and to clarify and qualify their answers. Open-ended questions are also used to allow more opportunity for creativity or self-expression by the client (Bailey, 1987). The researcher decided include open-ended questionnaire to cater for aspects the close-ended questions could not cover, and to allow respondents to structure their own responses in a more natural way.

4.5.2 Validity and Reliability

A pilot study was conducted to test the validity and reliability of the questionnaire. The questionnaire was piloted with a group of thirty five students at the University of Zululand. Returned questionnaires were screened and inaccurately completed questionnaires were discarded.

An internal consistency method of item analysis was used in a test run to check the validity and the reliability of a questionnaire. The type of an internal consistency test that was used was factor analysis. According to Allen and Yen (1979), factor analysis is used in test construction to help determine whether a set of items is homogeneous. If the items are linked and related to one another, this will prove that there is internal consistency among them (Gold, 1984 : 38). Since factor analysis were used by the researcher, to validate the items, the final scale can be regarded as valid and reliable.

4.6 Method of data analysis

The manner in which data was analyzed was left flexible to permit qualitative and quantitative analysis.

Frequencies were used to analyze biographical data. The researcher used the chi-square one sample and the two sample test to calculate data on observed and expected frequencies relating to close-ended questions. To test the association between variable of perception and sex, age, year level and faculty, the contingency co-efficient C test was employed. The degrees of freedom that complied with all the tests that were used, varied from one to three. The alpha level of 0.05 was chosen for all the data was analyzed. The alpha level is the probability we select that defines "too" unlikely. According to Heiman (1995 : 85) "psychologists have agreed that alpha should be 0.05 at most (although we may set it at a smaller value)". The researcher decided to comply with Heiman's (1995) observation about the psychologist's choice with regard to significance level.

Data was analyzed both manually and by using the SPSS computer programme. Qualitative analysis was used to analyze open-ended questions. The statements were analyzed into meaningful themes. Data from prevailing learning practices and that of preferred learning practices were analyzed separately.

4.7 Procedures for conducting empirical study

Permission to conduct research was obtained from the deans/vice deans of faculties. Contact persons in participating faculties were approached for the distribution of the questionnaire. Informed consent was obtained from the participants prior to data collection. The purpose of the study was explained to respondents. Attempts were made to minimize any confusion or misunderstanding which might arise, by providing an explanation of how respondents were to answer questions. The questionnaires were then handed to respondents to answer and return.

The final run of the questionnaire was preceeded by a trial run (pilot study) which was done in order to assess the appropriateness of the instrument and to solve unanticipated problems. Students who participate in pilot run were excluded from the final study.

4.8 Summary

The chapter focused on the research method used in the study. The researcher discussed the sampling design. A tool that was used to collect data was described, including the proposed method of data analysis. Information on analyzed data is reported in the next chapter (Chapter 5).

CHAPTER FIVE

Presentation and analysis of data

5.1 Introduction

In chapter four a detailed account of the research design and methodology was outlined. This chapter concerns itself with the detailed field work procedures for both the pilot study and the final study. Analysis and interpretation of results are discussed. Descriptive statistics as well as inferential statistics are used in this regard. Descriptive statistics was used to summarize biographical data of respondents as well as student's responses to statements on prevailing learning practices in academic support programmes. Descriptive statistics was also used to summarize data on preferred learning practices in academic support programmes.

5.2 The pilot study sample

The pilot study was conducted in order to validate the learning practice items of the academic support programme. The items involved prevailing learning practices. The pilot study was conducted at the University of Zululand by engaging thirty-five Bachelor of Psychology students. Students who participated in the pilot study were not involved in the final study.

5.3 Administration of the research instrument in the pilot study

Table 5.1 Distribution of subjects in the pilot study (N = 30)

	GENDER		
Age in Years	**Males**	**Females**	**Total**
Below 20	06	03	09
21 – 30	02	16	18
31 – 40	–	03	03
TOTAL	08	22	30

The researcher administered the questionnaire to second year students who were in the Arts faculty. All the students were doing a Bachelor of Psychology degree. The researcher administered the questionnaire herself. Respondents did not encounter difficulties in completing the questionnaire because the instructions were clearly stated.

5.4 Results of the pilot study

The collected questionnaires were screened and five inaccurately completed questionnaires were discarded. Thirty accurately filled-in questionnaires were identified and were used for the analysis of data for the pilot study. The researcher analyzed the data herself.

5.5 *Factor analysis for 40 items*

Factor analysis is used in test construction to help determine whether a set of items is homogenous and to select items that are homogenous (Allen & Yen, 1979 : 30). In the questionnaire consisting of 40 items the researcher intended to measure two factors, the academic factor and the personal factor. It is for this reason that factor analysis was used to extract items that belong to a particular factor and to label those factors. The items to be extracted were for both the prevailing learning practices and the preferred learning practices.

Table 5.2 **Factor analysis and factor loadings for 40 prevailing learning practices items**

ITEM	*FACTOR*		ESTIMATED COMMUNALITY
	1	2	
1.	-.312	.264	.892
2.	**.417**	-.469	.870
3.	.146	.286	.918
4.	**.671**	-.337	.770
5.	**.497**	-.171	.794
6.	**.466**	-.02	.911
7.	-.02	**.435**	.784
8.	**.493**	-.02	.772
9.	**.682**	-.02	.942
10.	**.686**	-.319	.906
11.	.106	**.353**	.893
12.	**.579**	-.02	.881
13.	**.268**	**.500**	.930
14.	**.461**	.222	.826
15.	**.558**	-.199	.741
16.	**.448**	-.604	.906
17.	**.318**	-.02	.809
18.	**.400**	-.02	.907
19.	**.373**	-.02	.726
20.	**.399**	-.02	.926
21.	-.02	-.237	.788
22.	**.435**	-.143	.897
23.	.109	**.340**	.826
24.	.226	.123	.859
25.	**.490**	.220	.846
26.	.166	.187	.821
27.	**.634**	-.02	.846
28.	.335	**.534**	.788
29.	-.02	**.557**	.881
30.	-.02	.140	.813
31.	**.631**	-.02	.805
32.	**.442**	-.128	.861
33.	.318	**.573**	.859
34.	.242	.262	.718
35.	.221	.130	.930
36.	.126	-.367	.849
37.	**.533**	-.133	.745
38.	**.503**	.107	.853
39.	.252	-.02	.782
40.	.333	**.500**	.876

Table 5.2 contains factor loadings expressed in correlation coefficients between factors and items. These coefficients represent factor loadings of the items on the factors, that is the degree to which an item is associated with a certain factor. The first column contains the number of items. The second column contains factor one loading. The third column contains the second factor. The estimated communality of the item appears on the fourth column, which is the last column.

The table (5.2) reveals that items 2, 4, 5, 6, 8, 9, 10, 12, 14, 15, 16, 18, 19, 20, 22, 25, 27, 31, 32, 37, and 38 have the highest loading on the first factor and a low loading on the second factor. The first factor measures academic support. Items 7, 11, 13, 23, 28, 29, 33 and 40 have the relatively highest loadings on the second factor as compared to the first factor. These items are related to personal support.

Table 5.3 **Factor analysis and factor loading of the 40 items for the preferred learning practices**

ITEMS	*FACTOR*		ESTIMATED COMMUNALITY
	1	2	
1.	.309	.245	.848
2.	**.607**	-.318	.920
3.	**.567**	.248	.785
4.	**.629**	.170	.874
5.	**.698**	-.2	.832
6.	**.662**	.322	.888
7.	.517	**.596**	.778
8.	**.749**	-.02	.856
9.	**.842**	-.02	.922
10.	**.830**	-.313	.936
11.	**.596**	.398	.797
12.	**.725**	-.192	.885
13.	**.570**	-.125	.848
14.	**.602**	-.02	.942
15.	**.679**	-.02	.868
16.	**.671**	.126	.914
17.	**.384**	-.339	.893
18.	**.581**	.115	.846
19.	.154	.112	.801
20.	**.518**	-.502	.896
21.	**.594**	.307	.856
22.	**.636**	-.125	.779
23.	**.815**	-.111	.851
24.	**.758**	-.209	.869
25.	**.537**	-.128	.777
26.	**.529**	-.207	.906
27.	**.698**	-.311	.917
28.	**.617**	-.186	.856
29.	**.543**	.301	.8588
30.	**.486**	.421	.902
31.	**.760**	-.02	.807
32.	**.640**	.117	.801
33.	**.727**	.245	.918
34.	**.491**	-.161	.778
35.	**.478**	-.02	.875
36.	.244	-.03	.791
37.	**.613**	-.02	.796
38.	**.570**	-.338	.916
39.	**.787**	-.387	.886
40.	**.743**	.185	.878

Table 5.3 shows that items 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 37, 38, 39 and 40 have relatively the highest loadings on the first factor. The items on factor one measure academic support factors. Item number 7, is the only one which relatively highest loading in the second factor. Factor 2 to which this item is associated is labelled "personal support".

Self-groupings of items into two factors through factor analysis demonstrates that there are sets of items which the first factor are homogenous and thus cluster closely around one factor. It must be noted that the manner in which items cluster around one factor differs in the questions related to the prevailing learning practices and the questions related to preferred learning practices. In the prevailing learning practices section, a total of 29 items were extracted, 21 of which were related to academic support and 7 of which were associated with personal support. On the other hand the items identical to those of the prevailing learning practices, 38 items were extracted, 37 of which were linked with learning support and only one item (7) was related to personal support.

5.6 Interpretation of factor loadings

The factor loading presented by correlation coeffients needs to be interpreted in order to bring the issue of cut-off points into perspective. Interpretation of loadings further puts the issue of factor analysis into perspective. Tabachnick and Fidell (Ngidi, 1998:63) give the following interpretations of loadings:

- Loadings in excess of .71 (50% overlapping variance) are considered excellent.
- Loadings in excess of .63 (40% overlapping variance) is considered very good.
- Loadings in excess of .55 (30% overlapping variance) is considered good.
- Loadings in excess of .45 (20% overlapping variance) is considered fair.
- Loadings in excess of .32 (10% overlapping variance) is considered poor.

Studies (Borg & Riding, 1991; Pyne & Furnham; 1987) that have used factor analysis have used .40 as a cut off point. Mashiya (2003) used .33 as a cut off point. In this study

the researcher decided to follow in the footsteps of Mashiya (2003) and chose .33 as the cut off point for the pilot study. The rationale for this choice was to retain as many items as possible. The researcher was aware that this cut off point which is below .40 but above .32 indicated a poor loading. Using the chosen, cut-off point (.33) in the prevailing learning practices section of the questionnaire – the following items were discarded: 1, 3, 7, 21, 24, 26, 30, 34, 35, 36, 39. Their highest factor loadings were .26, .28, .31, -.23, .22, .18, .14, .26, .22, .12 and .25 respectively. Out of 40 items, 11 were discarded from the final scale. The total number of my UASP at the moment for the final study is 29 (see Appendix E Number 1).

A cut-off point .33 indicating a 12% overlap in variance between the variable and the factor was also used for the items on the preferred learning practices section of the questionnaire. Items 1, and 36 were the only items that were discarded. Their highest loadings were .30 and .24 respectively. Out of 40 items 38 items on the way I would like my UASP to be were retained for the final study (see Appendix E Number 2).

In order to avoid administering two questionnaires in the final study because the number of items in both sections (prevailing and preferred) was unequal due to factor analysis, the researcher retained the question item number 1 to 38 of the preferred learning section and left blank spaces where the items for the prevailing learning practices section were discarded. A blank space was also left where the items for the preferred learning practice was discarded.

5.7 Description of the two factors

The factors referred to are the academic support factor and the personal support factor. The factors are described below.

5.7.1 Prevailing learning practice factors

Factor 1 Academic factor

Table 5.4 Academic support

ITEM	LOADING	ESTIMATED COMMUNALITY
2	.417	.870
4	.671	.770
5	.497	.794
6	.466	.911
8	.493	.772
9	.682	.942
10	.686	.906
12	.579	.881
14	.461	.826
15	.558	.741
16	.448	.906
18	.400	.907
19	.373	.726
20	.399	.926
22	.435	.897
25	.490	.846
27	.634	.846
31	.631	.805
32	.442	.861
37	.533	.745
38	.503	.853

The academic factor puts together items dealing with knowledge acquisition and mastery of academic content. These items include helping students to be responsible, enabling students to understand academic content; clarifying elements of content, setting clear objectives, supporting students on learning tasks, giving feedback on students' work, checking students progress, motivating students, developing a sense of confidence and focusing on high risk students. The academic factor also covers issues relating to instilling creativity, facilitating conceptual development, reading skills, writing skills, communication skills, information processing skills, study skills an in addition the provision of mentors. All these aspects need to be considered when providing academic support to students.

Factor 2 : Personal Support

These items are as follows : 7, 11, 13, 23, 28, 29, 33 and 40.

Table 5.5 Personal Support

ITEM	LOADING	ESTIMATED COMMUNALITY
7	.435	.784
11	.353	.893
13	.500	.930
23	.340	.826
28	.534	.788
29	.557	.881
33	.573	.859
40	.500	.876

The table 5.5 consists of items on personal support. Personal support includes aspects that are not academically or related but enhance academic success. These include English competence, developing cognitive abilities, application of concepts, self-reliance personal development and interpersonal skills of being ethical.

5.7.2 Preferred learning practices factors

The two factors, namely academic support and personal support, are described below. Table 5.6 shows the academic factors.

Factor 2 : Personal Support

These items are as follows : 7, 11, 13, 23, 28, 29, 33 and 40.

Table 5.5 Personal Support

ITEM	LOADING	ESTIMATED COMMUNALITY
7	.435	.784
11	.353	.893
13	.500	.930
23	.340	.826
28	.534	.788
29	.557	.881
33	.573	.859
40	.500	.876

The table 5.5 consists of items on personal support. Personal support includes aspects that are not academically or related but enhance academic success. These include English competence, developing cognitive abilities, application of concepts, self-reliance personal development and interpersonal skills of being ethical.

5.7.2 Preferred learning practices factors

The two factors, namely academic support and personal support, are described below. Table 5.6 shows the academic factors.

Factor 1 **Academic factor**

Table 5.6 **Academic factors**

ITEMS	LOADING	ESTIMATED COMMUNALITY
2	.607	.920
3	.567	.785
4	.629	.874
5	.698	.832
6	.662	.888
8	.749	.856
9	.842	.922
10	.830	.936
11	.596	.797
12	.725	.885
13	.570	.848
14	.602	.942
15	.679	.868
16	.671	.914
17	.384	.893
18	.581	.846
20	.518	.896
21	.594	.856
22	.636	.779
23	.815	.851
24	.758	.869
25	.537	.777
26	.529	.906
27	.698	.917
28	.617	.856
29	.543	.8588
30	.486	.902
31	.760	.807
32	.640	.801
33	.727	.918
34	.491	.778
35	.478	.875
37	.613	.796
38	.570	.916
39	.787	.886
40	.743	.878

Table 5.6 shows academic support items. All the aspects that have to do with academic development and assistance relating to mastering content and maximizing academic success are packed in this factor according to the internal consistency reliability. Academic support includes the following items: developing a sense of responsibility in students; success oriented; helping students to write their thoughts clearly; helping students in planning and organizing their studying; enabling students to understand academic content setting clear objectives; providing students with reading, writing, communication, interpersonal study, information processing skills and skills for development. Included also are the following aspects: clarifying elements of content; enabling students to apply concepts; developing cognitive thinking; critical thinking; instilling creativity, self-reliance independence; confidence and motivation. Accommodating student's problems; providing feedback about students work; provides mentors and finally helps students to adjust to university life.

Factor 2 Personal factor

Table 5.7 Personal support

ITEM	LOADING	ESTIMATED COMMUNALITY
7	0596	.778

Personal support includes aspects that help to enhance academic success. In the preferred learning practices section of the questionnaire, helping students with English competence is the only item the was classified under personal factors after factor analysis

5.8 The final study sample

The sample study was selected at the University of Zululand, the rationale being that the researcher wanted to undertake a detailed analysis of nature of support in the tertiary institution.

5.9 Administration of the research instrument in the final study sample

Table 5.8 Distribution of subjects in the final study (N = 120)

CRITERIA	LEVELS			
Gender	**Males (38)**	**Females (82)**		
Age in years	**Below 20**	**21- 30**	**31 – 40**	**41-50**
	26	87	6	1
Faculty	**Arts**	**Com/L/Admin**	**Education**	**Science**
	30	39	25	26
Year level	**2nd year**	**3rd year**	**4th year**	
	81	38	1	

Table 5.8 shows the distribution of subjects in the final study sample. The questionnaire was administered to 120 University of Zululand students. The procedures for questionnaire administration and scoring were discussed in chapter four. The present chapter details the results of the final study.

5.10 Conceptualization of questions and formulation of hypotheses

From aims stated in chapter one, the following questions were conceived:

5.10.1 What is the nature of learning practices that prevail in the University of Zululand support programme.

5.10.2 Which learning practices are preferred by students?

From the aims stated in chapter one the following hypotheses were also formulated.

5.10.3 Students' perception of the prevailing and the preferred learning practices do not differ.

5.10.4 There is no relationship between students' perceptions and characteristics such as gender, age, study year level and faculty on prevailing and preferred learning practices.

5.11 Results of the final study

Two questions were answered and two hypotheses were tested in this study.

A total score for each individual was obtained by summing up all scores to individual items. There were thirty eight items, altogether for the preferred learning practice and twenty nine items for prevailing learning practices. A general mean score was obtained by adding the total scores for the respondents and dividing this sum by the number of respondents for both the responses for the prevailing learning practices and the preferred learning practice in student support.

The total for prevailing practices was 9742 and the number of respondents was 120. The general mean score is 81. The mean for the preferred practices is 159, that is, $\sum X$ = 19115 divided by N = 120. These scores will enable the researcher to derive information about positive and negative perceptions.

A total score for each question was obtained by summing up all scores to items. A general mean score was obtained by adding the total scores for the questions and dividing the sum of questions. The total for all the items of the prevailing practices was 9742 and the number of question was 29. The general mean score was 335. This principle was also applied to the section which deals with preferred learning practices. The mean for the preferred learning practices was 516, that is 19115 divided by N = 37. The rationale for

this exercise was to extract items which best represent what prevails in programme and items that will represent what students feel should obtain in their support programme.

5.11.1 **Question number one**

Reiteration of the question

"What is the nature of learning practices that prevail in the University of Zululand support programme?"

Twenty nine items in the questionnaire represented the nature of learning practices that prevail in the University of Zululand support programmes. These are the items that remained when the questionnaire consisting of forty items was subjected to factor analysis. The items were categorized into the academic and personal factor. This homogeneous grouping of items was made possible by using factor analysis.

The following table 5.9, shows the nature of support that prevails in the University of Zululand support programme.

Table 5.9 Nature of prevailing learning practices (mean and rank) N = 15)

	ITEM	MEAN (335)	Rank
4	Helps me in planning and organising my studying	341	11
5	Enables us to understand academic content	363	01
7	Helps me with English competence	340	12
14	Provides us with information processing skills	346	08
15	Develops me academically	354	03
19	Gives me a chance to discuss areas of difficulty with my mentor	339	13
21	Helps student to adjust to university life	362	02
22	Instils creativity	338	14
24	Helps me to identify my strengths	342	09
25	Facilitates independence	347	07
27	Provides opportunities for skills development	351	06
28	Promotes personal development	352	05
30	Makes me to be confident	338	14
31	Motivates students	342	09
38	Gives us feedback about our work	357	03
	TOTAL	15%	

Of the 29 questions, 15 (52%) items were above the mean and 14 (48%) fell below the mean. The fifteen items that were above the mean are those whose general mean score was 335 and above. This meant that all the items that were above the mean represented the nature of support that prevails. The 15 questions include both the academic and personal factor.

Out of the fifteen items that students perceived as characterising the nature of support students were afforded in their programme, thirteen (89%) were related to the academic aspect and only two (13%) (Helps students with English competence and provides personal development) were related to the personal aspect.

The items representing the nature of learning practices were ranked according to the highest mean to the lowest mean. Table 5.9 above shows distribution of ranked items.

Table 5.9 also shows that item 5 whose statement is as follows: "enables us to understand academic content", enjoys the first position. The statement: "instils creativity" and the statement "makes me to be confident" tie and occupy the last position (14). All the other positions except for position 3 (provided personal support) and position 12 (helps me with English competence) including 1 and 14 were related to academic intervention.

The rest of the items (14) were not perceived as prevailing of their academic development programme. The items include:

- Develops a sense of responsibility in us;
- Helps to write my thoughts down clearly;
- Sets clear objectives;
- Provides students with reading skills;
- Helps students improve their writing skills;
- Leads to conceptual development;
- Develops my cognitive abilities;
- Clarifies elements of content;
- Enables students to apply concepts;
- Equips one with communication skills
- Focuses on high risk students;
- Has a well being of students as a major objectives;
- Check student progress;
- Helps with study skills required for academic work.

5.11.2 Question number two

Reiteration of the question.

"Which learning practices are preferred by students?"

The nature of learning practices preferred by students was represented by thirty seven questions. These are questions that remained after the questionnaire was validated by means of factor analysis. The items in the questionnaire catered for both the academic and personal factors. Students had to identify those items that best represented their preferred support. Table 5.10 reveals the findings.

Table 5.10 **Nature of preferred learning practice (mean and rank = 17)**

	ITEM	Mean (516)	Rank
4	Helps me in planning and organising my studying	518	14
7	Helps students with English competence	520	12
8	Provides students with reading skills	525	09
19	Gives me a chance to discuss areas of difficulty with my mentor	518	14
21	Helps new students to adjust to university life	538	03
22	Instils creativity	516	17
23	Leads to self-reliance	521	11
24	Helps me to identify my strengths	531	07
26	Develops a sense of confidence in me	526	08
27	Provides opportunities for skills development	524	10
28	Promotes personal development	520	12
30	Makes us to be confident	544	02
31	Motivates students	536	04
34	Provides us with student mentors	518	14
35	Checks students progress	536	04

37	Provides support for learning tasks	532	06
38	Gives us feedback about our work	553	01
	TOTAL	15	(100%

The table reveals that out of thirty seven items, seventeen were identified by students as representing what they prefer to characterize in their support programme. Fifteen of the items (88%) represented the academic aspect of support. Only two (2) items (12%) represented personal support (Helps students with English competence).

The mean of the preferred learning practices ranged between 553 and 516. The statement: "Gives us feedback about our work" occupies the first position, whilst it occupies the third position in the prevailing learning practices. The last item in the ranked statement reads thus: "Instills creativity".

Students did not prefer the following learning practices in their intervention programme:

- Develops a sense of responsibility in us;
- Success oriented;
- Helps to write my thoughts down clearly;
- Sets clear objectives;
- Enables us to understand academic content;
- Helps students to improve their writing skills;
- Leads to conceptual development;
- Develops my cognitive abilities;
- Clarifies elements of content;
- Enables students to apply concepts;
- Provides us with information processing skills;
- Develops me academically;
- Encourages critically thinking;
- Equips me with communication skills;

- Focuses on high risk students;
- Accommodates students problems;
- Facilitates independence;
- Provides interpersonal skills;
- Has a well-being of students as a major objective;
- Helps with study skills required for academic work.

5.11.3 Hypothesis number one

Reiteration of the hypothesis

"Students perception of the prevailing and preferred learning practices do not differ".

To test this hypothesis the researcher used a chi-square test. This is a test that tells the extent to which the observed frequencies differ from expected frequencies. The test does not make assumptions about the distribution of the population parameters (Heiman, 1995). Of the types of chi-square that exist, the researcher chose to use the chi-square two sample test. The rationale for this choice was that the writer was mainly concerned with comparing how many respondents of the whole sample fall into each of the descriptive categories, negative and positive perception in respect of two samples, namely prevailing learning practices and preferred learning practices. The researcher's choice is in accordance with requirements stipulated by Behr (1988) that a chi-square two sample test is recommended for comparing differences in observed frequencies with expected frequencies in two samples with various categories to determine whether differences (except for the sampling error) are typical of the population from which the sample was drawn.

The hypothesis was tested at 5% level of significance.

Table 5.11 The extent to which student perception of the prevailing and preferred learning practices differ

	Response Options (N = 120)	
Learning practice type	**Positive**	**Negative**
Prevailing	52	68
Preferred	79	41
$X^2 = 22.72$	df = 1	p . > 0.5

The researcher obtained X^2 of 22.73 which exceeds the tabled value at the .05 level of significance, namely .05 (3,84) at df = 1. This difference is not due to sampling errors. It is significant and reflects the position in the general population of students at the University of Zululand. In other words we uphold H_1 and reject H_0. This analysis shows that prevailing and preferred learning practices are viewed differently by students. The hypothesis that there is a difference between the students' perception of the prevailing and preferred has been confirmed.

The type of support programme plays an important role as far as perception is concerned. Sixty six percent of students hold a positive perception towards the preferred learning practices as compared to thirty four percent perception by the same students towards prevailing learning practices. Students (57%) hold a negative view towards prevailing learning practices while 43% of the same students' hold a negative view of preferred learning practice. Student involvements seem to play a major role in designing intervention programmes.

5.11.4 Hypothesis number two

Reiteration of hypothesis number two.

"There is no relationship between student's perceptions and the students characteristics such as gender, age, year level and faculty on the prevailing and the preferred learning practices".

A chi-square test was used to test hypothesis two. This test was utilized for all the variables mentioned in hypothesis number two above.

Findings in relation to prevailing practices.

Table 5.12 Gender differences in the perceptions of prevailing leaning practices by students (subjects)

	Response Options (N = 120)	
Gender	**Positive**	**Negative**
Females	27	55
Males	17	21
$X^2 = 4.03$	df = 1	p . < 0.05

The obtained $X^2 = 4.03$ exceeds the tabled value (3.841) at .05 level of significance and at *df* 1. This means we uphold H_1 and reject H_0. This means that results are significant. According to this analysis, male and female students differ in their perception of prevailing learning practices. The hypothesis that, there is a relationship between the students' perception of prevailing learning practice and gender has been confirmed.

Table 5.13 Age differences in perceptions of prevailing learning practices by students (subjects)

	Response Options (N = 120)	
Age in years	**Positive**	**Negative**
20 below	14	12
21- 30	36	51
31 – 40	02	04
41 – 50	01	—
X^2= 1.54	*df* = 3	p . > 0.05

In compiling the table above, the objective was to determine whether the variable of age affects students' perception towards the prevailing learning practices in their support programme. The co-efficient C test was used.

A X^2 value of 1.54 at *df 3* was obtained. It is not significant at our chosen level of probability. Since calculated value is less than the table value (7.815) the decision is to uphold the null hypothesis H_0 and to reject the alternative hypothesis H_1 and conclude that there are no relationship between the student's perception towards prevailing learning practices and age.

Table 5.14 Study year level differences in the perceptions of prevailing learning practices

	Response Options (N = 120)	
Year Level	**Positive**	**Negative**
2nd year	38	43
3rd year	15	23
4th year	--	1
X^2= 4.03	*df* = 2	p . > 0.05

Table 5.14 shows that a chi-square value of 4,03 at *df* 2 was obtained in the analysis of variable of perception and year level. The score obtained is not significant at our chosen level of significance, which is 0.05 (5.991). Since the obtained value is lesser than the table value the decision is to uphold the null hypothesis H_0 and conclude that there is no relationship between the student's perception of their prevailing learning practices and year level.

Table 5.15 Faculty differences in the perceptions of prevailing learning practices by students

	Response Options (N = 120)	
Faculty	**Positive**	**Negative**
Arts	20	10
Admin/Comm/Law	11	28
Education	15	10
Science	06	20
$X^2 = 2.72$	$df = 3$	p . > 0.5

A chi-square value of 2.72 at $df = 3$ was obtained for table 5.14 and is not significant. The theoretical value was 7.815. This calculated value is lesser than the table value. We uphold the null hypothesis (H_0) and reject the alternative hypothesis (H_1). The hypothesis that there is no relationship between the students' perception and faculty has been confirmed.

Table 5.16 Gender differences in perceptions of preferred learning practices by students

	Response Options (N = 120)	
Gender	**Positive**	**Negative**
Females	77	05
Males	36	02
$X^2 = 4.08$	$df = 1$	p . > 0.5

The chi-square value of 4.08 at *df* 1 was obtained for table 5.15. It exceeds the level of significance namely .05 (3.84). The results imply that males and female students differ in the manner they perceive preferred learning practices. The hypothesis that a relationship exists between sex and perception of preferred learning practices has been confirmed through this analysis.

Findings in relation to preferred practices.

Table 5.17 Age differences in perceptions of preferred learning practices

	Response Options (N = 120)	
Age in years	**Positive**	**Negative**
20 below	24	02
21 – 30	83	04
31 – 40	05	01
41 – 50	01	--
$X^2 = 2.23$	$df = 3$	$p > 0.05$

A X^2 of 2.23 at $df = 3$ is not significant. It is lesser than the level of significance, namely .05 (7.815). The null hypothesis (H_0) is uphold and the alternative hypothesis (H_1) is rejected. The hypothesis that there is no relationship between the student's perception of the preferred learning practice and age is confirmed.

Table 5.18 Study year level differences in the perception of preferred learning practices by students

	Response Options (N = 120)	
Year level	**Positive**	**Negative**
2nd year	76	05
3rd year	36	02
4th year	01	–
$X^2 = 5.53$	$df = 2$	$p > 0.05$

In table 5.18 above the researcher wanted to find out the extent to which the student's perception are affected by the variable of year level.

A X^2 value of 5.53 is not significant. It is lesser than the level of significance namely, (5.991).We reject the alternative hypothesis (H_1) and uphold the null hypothesis (H_0). The null hypothesis that there is no relationship between student's perceptions towards the preferred learning practices and year level has been confirmed. The results show that there is no relationship between perception and the year level the student is doing.

Table 5.19 Faculty differences in the perceptions of preferred learning practices

	Response Options (N = 120)	
Faculty	**Positive**	**Negative**
Arts	20	10
Admin/Comm/Law	11	28
Education	15	10
Science	06	20
$X^2 = 5.00$	$df = 3$	p. > 0.5

In compiling the above table, the objective was to determine whether the variable of faculty affects students' perception towards the prevailing learning practices.

The hypothesis that there is no relationship between the student's perception of the preferred learning practices and faculty has been confirmed. This is due to the fact that the calculated value (X^2 value of 5.00) is lesser than the table value at 0.05 (7.815) with *df* of 3. As a result of this finding the null hypothesis (H_0) was upheld and the alternative hypothesis (H_1) was rejected.

The questionnaire having thus far asked students close-ended questions relating to support, (prevailing and preferred) respondents were asked to provide additional information regarding support.

5.12 Additional information regarding support

This section was meant to cater for aspects of learning practices the researcher might have omitted or might not have been aware of.

Responses to additional information about what is prevailing were ignored by most students. What stood out as additional information was that lectures motivate students and that the support structure that helps them is not very visible. Some students mentioned that they have mentors, but the programme of mentors starts on the second term. They mentioned that they would prefer to have it on the first term.

Additional information about what students preferred was more about their wishes and their needs. Students expressed different needs. The most dominating need was financial support. The academic need was also expressed. This was expressed as a wish to be helped to express themselves in English and to have extra tuition for students who have difficulty understanding certain lecturers. The issue of introducing mentors is another issue that featured prominently. There was concern that mentor programmes are introduced on the second term and that mentors are only confined to assisting first year students. Students indicated that this situation should change and assistance should extend to other undergraduate levels. Tutorials, internship with industry and transport for practicals, were also mentioned.

Some comments involved the fact that students must also be supported by being attended to individually. One student wrote *"they should ask us what our needs are rather than providing us with our wants. They should also get back to us and check if we are satisfied with what they have done"*. Other things preferred included employing more lecturers, building lecture halls and additional computers in the computer laboratory. Finally additional accommodation and protection to those who live off-campus. The preferred learning practice involved a wide range of issues.

5.13 Summary

This chapter focused on the presentation of results and the analysis of data. Data of the pilot study and the final study were presented and analyzed. The interpretation was also done. In the chapter that follows (chapter 6) discussions, implications of findings, recommendations, limitations and avenues for future research are indicated.

CHAPTER SIX

Discussion of results, implication of findings, recommendations and limitations

6.1 Introduction

In this chapter, the researcher discusses data collected on learning practices and other relevant issues as reviewed in the literature. Implications of the findings including recommendations, limitations and avenues for future research are also considered.

6.2 Discussion of results

The study was designed to investigate current and preferred learning practices in student support at the University of Zululand. The results of the study are interpreted in the light of qualitative and quantitative data obtained. The discussions are based on the students' views about the present nature of support in their programme and their perception of both prevailing support and what they would like to see happening in terms of support practices in future. The study intends to answer the following questions:

i) What is the nature of support that prevails in University of Zululand support programme.

ii) Which learning practices are preferred by students?

iii) What will be the students' perceptions of prevailing and preferred learning practices in the university support programme?

iv) Which factors influence student's perceptions regarding prevailing and preferred learning practices in the university support programme?

6.3 The aims of the study

i) To determine the nature of support that prevails at the University of Zululand support programme.

ii) To determine the learning practices preferred by

iii) To determine the student's perception of the prevailing and preferred learning practices.

iv) To find out if there are any factors which influence students' perceptions of the prevailing and preferred learning practices.

6.3.1 Findings with regard to aim number one

Students support comes in various forms and various aspects are included in the student support programmes. Some variables cater for support as a whole, some cater for specific areas for example language, cognitive development, study skills and creative thinking, among others. In looking at the nature of support that is provided, the researcher wanted to find out which aspects presently reflect the type of support students receive in their programme. Out of twenty nine items, 15 (52%) were rated as representing what prevails in the programme and 14 (48%) were rated is not representing what prevails in the University of Zululand support programme.

The results show that student support in the programme at the University of Zululand caters mainly for academic development. This is evidenced by the fact that most of the responses (87%) are skewed towards assisting students to develop academically as opposed to 13% of the items which are related to personal support. The items include according to rank order highest to lowest:

- enables us to understand academic content:
- helps to adjust to university life; gives us feedback about our work;

- develops me academically; provides opportunities for skills development;
- facilitates independence;
- provides us with information processing skills;
- helps me to identify my strengths;
- motivates students;
- helps me in organising my studying;
- gives me a chance to discuss and of difficulty with my mentor;
- instills creativity and makes me to be confident.

The finding that the programme of University of Zululand is biased towards academic success is not surprising. Most programmes that support students at tertiary institutions, have as one of their aims, an intention to help students maximise their academic performance so that they become learners who are critical, independent, exploratory, creative, and effective in processing, organising and communicating facts (Academic Support Programme, Annual Report, in Agar, 1990 : 438). The prevailing programme at the University of Zululand is not deviating from the requirements of academic development, looking at the fact that aspects like facilitate independence; information processing skills, and instills creativity have been included in the programme.

In a study (Nyamapfene & Letseka, 1995) that looked into the problems of learning among South African universities, the results revealed among other things that the problems of first year students include failure to develop appropriate study skills. In the programme of the university this aspect has been catered for (helps in planning and organising my studying). Literature (Shay, Bond & Hughes, 1996) has revealed that students at tertiary institutions are confronted by a number of demands, a need to improve their language communication (English 2nd language) and to correct their language errors being one of those demands. The findings reveal that this learning practice prevails in the programme of the institution (helps me with English competence). The inclusion of this aspect (language support) suggest that the designers of the support programme are aware that students they admit come from different racial and cultural backgrounds and English for the majority of them is a second language. One can add that, the inclusion of language

support in a form of English, shows that the institution is sensitive to the fact that since English is medium of communication it cannot be ignored as it is the only tool for expressing ideas at tertiary level. Mentorship is an important component for inclusion in an intervention programme (Ntombela, *et al.,* 1994; Mahatey, *et al.,* 1994). This component make a difference in education development, by providing role models who will help disadvantaged students to succeed (Ntombela, *et al.,* 1994). The results show that mentorship has been included in the programme. To a large extent all the learning practices prevailing in this programme were designed for the students, with the students' needs in mind, as is usually the case with academic support programmes.

6.3.2 **Findings with regard to aim number two**

Results indicated that students at the University of Zululand preferred a whole range learning practices in their programme. Most common, however, were items directly related to academic success. Only two items were related to personal support. According to the findings, students prefer a programme that will :

- enable lecturers to give them feedback about their work;
- make them to be confident;
- help them to adjust to university life;
- motivate them;
- provide support for learning tasks;
- help them to identify their strengths;
- develop a sense of confidence in them;
- provide them with reading skills;
- provide opportunities for skills development;
- help them with English competence;
- provide personal development;
- provide them with mentors;
- gives them a chance to discuss areas of difficulty with their mentors;
- help them in planning and organizing their studying; and
- finally, instill creativity in them.

The preferred learning practices items can be grouped according to themes in order to capture what students would like be included in their programme. The issue of content-oriented support is revealed in their preference. This is implied when students state that they want to be supported in their learning tasks and to be given feedback about their work. Feedback is an aspect of helping students identify their strength.

Other items identified by students can be categorized as skills –oriented. Skills identified include: study skills, reading skills; adjustment skills; skills for building confidence; and skills to instill motivation. Language competence appears to be a theme on its own. This aspect cannot be neglected as all the issues in any learning programme are communicated through the English medium (written or spoken). The social oriented theme is also implied in the items identified by student. The items belonging to this category deal with the fact that students realized that they could not do without others who would act as role models – that is mentors. Mentors will give them an opportunity to discuss areas of difficulty with them.

Besides these themes which emerged from the preferred learning practices, it was noted that some of the items which prevailed in the University support programme were also preferred. For example, the following items appeared in both programmes:

- helps me to adjust to university life;
- helps me in planning and organizing my studying;
- helps me with English competence;
- gives me a chance to discuss areas of difficulty with my mentor;
- instills creativity;
- helps me identify my strengths;
- provides opportunities for skills development;
- promotes personal development;
- makes me to be confident;
- motivates students; and
- gives us feedback about our work.

This commonality of aspects indicated that what is prevailing in the support programme of students is not very remote from what students desire. This observation indicates that the prevailing programme has a potential to satisfy the needs of students because it has some items they desire to be included in an ideal programme.

6.3.3 Findings with regard to aim number three

This aim addressed the issues of the comparison between student's perception of the prevailing learning practice and the preferred learning practice. The results revealed that prevailing and preferred learning practices are perceived differently by students. The results show that sixty six percent of students hold a positive perception towards the preferred learning practice and (34%) of students hold a positive attitude towards the prevailing learning practice. The results also who that 57% of students hold a negative view towards the prevailing learning practice. This finding is suggestive that there is an inverse relationship between the nature of support and perception. The finding that students are positive towards preferred learning practices supports the idea that students must be involved in designing a support programme that is for them by themselves.

The findings that students perceive the prevailing support negatively, is similar to findings in literature. Pavlich, *et al.*, (1995) in his study of student views about academic support found that students displayed resentment about the way in which academic support singled out students and made them feel stupid. Lessing and Schulze (2002), on the other hand, conducted study on the perception of academic support by post-graduate students and their findings revealed that students felt that their expectations were not met.

The fact that the overall perception of the preferred learning practice is positive shows without doubt that students must be afforded an opportunity to evaluate the effectiveness of the programmes and to give input into the programmes.

6.3.4 Findings with regard to aim number four

The study intended to establish if variables such as gender, age, year level and faculty have influence on the student's perception of the prevailing and the preferred learning practices. The results show that males and females differ in their perception of the prevailing learning practices. The same findings apply to the preferred learning practices. With regard to the variable of age, the interesting finding is that both prevailing and preferred have no influence on perception. It is revealed that the variable of year level does have influence. This applies to both support programmes. With regard to prevailing learning practices it was discovered that the variables of faculty does not influence the student's perception. On the other hand the variable of faculty was revealed to have influence on the student's perception towards the preferred learning practice.

The findings has added to the body of knowledge about support programmes, that the variables of sex and faculty influence perception and that the variables of year level and age have no influence on perception.

6.3.5 Findings emanating from additional information regarding support

Students prefer that support should involve more than enhancing academic skills. This was evidenced by the fact that they mentioned issues like financial assistance, personal support, resources and protection. This is in line with the findings of Dickson and Fleet (2000) who mentioned that support practices must ensure that students receive the kind of support that will lead to development in the fullest sense.

6.4 Implication of findings

Generally the findings indicate that the support programme needs to be evaluated in order to establish what prevails in it. This exercise will give staff an opportunity to identify gaps in their programme. The evaluation of the existing programme will also give an indication as to whether the direction the staff is taking in terms of intervention is in line

with aims of student support. It is through evaluation of what prevails in programme that staff will know whether their programmes need "serious academic panel beating" (Masenya, 1997:7) or not.

The findings revealed that students as stakeholders have a preference regarding what should obtain in a support programme. The implication of this finding is that students should be given an opportunity to decide which aspects should be included in a support programme. A simple reason is that students know their problems, their needs and wants. Student input in designing an academic support programme will culminate into ownership of the programme and maximization of participation in the programme. The observation that some students who have to receive academic support reject or take it reluctantly (Tema, 1988) will be a thing of the past.

The research findings indicate that prevailing and preferred learning practices are perceived differently in favour of the preferred learning practice. The implication of this finding is that the existing programme needs a 'face lift'. In overhauling the programme, students' in-put must be considered.

In designing any programme the gender of students should be taken into consideration. The results show that a relationship exists between the students' perception and gender. Failure to consider gender in designing a programme will have negative impact on the prevailing and preferred learning practices.

The age of the student should not be taken into consideration since the results show that there is no relationship between the students' perception and age. The results also show that no relationship exists between the year level of study and the students' perception of the prevailing and the preferred learning practices. The implication is that any age group can have a view about intervention programmes. The year level of the student does not have influence on the students perception of what prevails and what is preferred. This implies that a student from any year level can participate in evaluating the programme. The results show that there is no relationship between the students' perception and

faculty. This implies that students from any faculty can give a view on prevailing practices. On the other hand, results show that a relationship exists between the students' perception of the preferred learning practice and faculty.

The implication of the findings is that when designing a programme one must bear in mind that there are certain variables which will influence the students perception of the programme. Also implied is that students must be considered as important stakeholders in the programme because their input is of value.

The findings also imply that in designing support programmes it is imperative that these programmes lead to development that is holistic.

6.5 Limitation of the study

There were limitations in the study, some of which were inherent in the research design and methodology and some which were independent of these.

- There was a limit in using the questionnaire as the tool to collect data. The questions might have been biased or loaded in one direction.

- A further limit relating to the questionnaire might have been that questions were understood differently by different respondents.

- It was a limitation that only a questionnaire was used as an instrument to collect data. Perhaps this limitation could have been avoided if a follow-up interview was conducted with each respondent. However for practical reasons, this was not possible.

- In section C of the questionnaire, the respondents were asked to mention additional information regarding what prevails and what is preferred. In the section that was intended for what prevails some students stated their wishes and

preferences rather than what prevails. Because the responses were not relevant to the section on what prevails, they were not considered.

- Some students did not complete the section on prevailing learning practices. They mentioned that they did not have an idea of what is prevailing and they are not aware of such support structure. As result of this a lot of questionnaire were discarded.

- The fact that this is a case-study, the results of which are non-generalizeable is a limitation on its own.

6.6 Avenues for future research

The study has succeeded in its objectives and has opened the following areas for future research.

- The sample of study was drawn from second to fourth year students. There is a need for a study involving first year students only, particularly on the issue of prevailing learning practice, then later on preferred areas.

- There will be a need also for study involving post-graduate students particularly on preferred learning practice.

- It will also be necessary to do an investigation where lecturers and practitioners of academic support will look into support they provide.

- Since the study was conducted at the University of Zululand, it will be useful to undertake one in another tertiary institution in KwaZulu-Natal to establish if there will be any significant differences between the learning practices they provide and those at the University of Zululand.

- A comparative study of prevailing practices in faculties and across faculties of universities will also make an interesting study.

6.7 Conclusion

In this chapter, findings of the study were discussed and the aims of the research study were achieved. Recommendations for future students were made and the limitations were listed. In spite of the mentioned limitations the study has managed to document the learning practices prevailing in student support at the University of Zululand. The study has also document preferred support practices. Factors which influence perception towards support have been identified. Also identified were factors which do not have an influence on students' perception of support initiatives. Finally, it provided avenues for future research for other researchers who are interested in the same field.

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APPENDIX A

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30 May 2005

The Registrar Academic and Research and Deans of Faculties
University of Zululand

REQUEST FOR PERMISSION TO CONDUCT RESEARCH WITH STUDENTS AS SUBJECTS

I am a staff member at the University of Zululand and has registered for a D.Ed degree in the Faculty of Education: Department of Educational Psychology and Special Education. My investigation is entitled "Prevailing and preferred learning practices in university student support programmes".

The proposed research is intended to contribute to the field of academic support by coming up with a preferred model for student support. The study attempts to answer the following questions:

1. What is the nature of learning practices prevalent at the University of Zululand support programme?
2. Which learning practices preferred by students?
3. What will be the students' perceptions of the prevailing and the preferred learning practices in university academic support programme?
4. Which factors influence students' perceptions regarding prevailing and preferred learning practices in university academic support programme?

Your permission to conduct research in your institution will be highly appreciated.

Yours faithfully

_____

JD ADAMS
SENIOR LECTURER : DEPARTMENT OF EDUCATIONAL PSYCHOLOGY AND SPECIAL EDUCATION

APPENDIX B

QUESTIONNAIRE

This is a questionnaire on: Prevailing and preferred learning practices in university student support programmes.

1. You are expected to assign values to reflect how you perceive your university academic support programme. The instructions on how to assign values on each item accompany this questionnaire.

2. Please rate every statement.

3. You are also requested to provide additional information in accordance with the instructions accompanying this questionnaire.

4. Your information will be confidential, therefore do not write your name or the name of your academic institution in this questionnaire.

Thank you for your cooperation.

JD ADAMS (Senior Lecturer)
Department of Educational Psychology and Special Education
University of Zululand
Private Bag X1001
KWA-DLANGEZWA
3886

Please turn on the next page.

SECTION A

A. BIOGRAPHICAL INFORMATION

Please make a cross (X) in the appropriate space or box provided.

1. Gender

1	2
Female	Male

2. Age

1	2	3	4	5
Below 20	21 - 30	31 - 40	41-50	50 and above

3. Faculty/School

1	2	3	4
Arts	Commerce/Administration/Law	Education	Science
5 Other.....			

4. Your level

1	2	3	4	5
1st year	2nd year	3rd year	4th year	5 year and more

SECTION B

How would you describe your University Academic Support Programme (UASP)?

INSTRUCTIONS :

Please assign a value 1, 2, 3, 4 or 5 to every one of the following characteristics by encircling the appropriate number in both section A and B.

A = My UASP at the moment (Prevailing)

B = The way I would like it to be (Preferred)

Key: Exactly like this **5** Somewhat like this **4** Not sure **3** Not like this **2** Not like this at all **1**

	ITEM	A PREVAILING (My UASP at the moment)					B PREFERRED (The way I would like my UASP to be)				
1.	Results oriented	1	2	3	4	5	1	2	3	4	5
2.	Develops a sense of responsibility in us	1	2	3	4	5	1	2	3	4	5
3.	Success oriented	1	2	3	4	5	1	2	3	4	5
4.	Helps to write my thoughts down clearly	1	2	3	4	5	1	2	3	4	5
5.	Helps me in planning and organising my studying	1	2	3	4	5	1	2	3	4	5
6.	Enables us to understand academic content	1	2	3	4	5	1	2	3	4	5
7.	Sets clear objectives	1	2	3	4	5	1	2	3	4	5
8.	Helps students with English competence	1	2	3	4	5	1	2	3	4	5
9.	Provides students with reading skills	1	2	3	4	5	1	2	3	4	5
10.	Helps students to improve their writing skills	1	2	3	4	5	1	2	3	4	5
11.	Leads to conceptual development	1	2	3	4	5	1	2	3	4	5
12.	Develops my cognitive abilities	1	2	3	4	5	1	2	3	4	5
13.	Clarifies elements of content	1	2	3	4	5	1	2	3	4	5
14.	Enables students to apply concepts	1	2	3	4	5	1	2	3	4	5
15.	Provides us with information processing skills	1	2	3	4	5	1	2	3	4	5
16.	Develops me academically	1	2	3	4	5	1	2	3	4	5
17.	Encourages critical thinking	1	2	3	4	5	1	2	3	4	5
18.	Equips one with communication skills	1	2	3	4	5	1	2	3	4	5
19.	Focuses on high risk students	1	2	3	4	5	1	2	3	4	5
20.	Gives me a chance to discuss areas of difficulty with my mentor	1	2	3	4	5	1	2	3	4	5

Key: Exactly like this **5** Somewhat like this **4** Not sure **3** Not like this **2** Not like this at all **1**

	ITEM	A PREVAILING (My UASP at the moment)					B PREFERRED (The way I would like my UASP to be)				
21.	Accommodate students problems	1	2	3	4	5	1	2	3	4	5
22.	Helps new students to adjust to university life	1	2	3	4	5	1	2	3	4	5
23.	Instills creativity	1	2	3	4	5	1	2	3	4	5
24.	Leads to self-reliance	1	2	3	4	5	1	2	3	4	5
25.	Helps me to identify my strengths	1	2	3	4	5	1	2	3	4	5
26.	Facilitates independence	1	2	3	4	5	1	2	3	4	5
27.	Develops a sense of confidence in me	1	2	3	4	5	1	2	3	4	5
28.	Provides opportunities for skills development	1	2	3	4	5	1	2	3	4	5
29.	Provides personal development	1	2	3	4	5	1	2	3	4	5
30.	Provides interpersonal skills	1	2	3	4	5	1	2	3	4	5
31.	Makes me to be confident	1	2	3	4	5	1	2	3	4	5
32.	Motivates students	1	2	3	4	5	1	2	3	4	5
33.	Has the well-being of students as a major objective	1	2	3	4	5	1	2	3	4	5
34.	Is very ethical	1	2	3	4	5	1	2	3	4	5
35.	Provides us with students mentors	1	2	3	4	5	1	2	3	4	5
36.	Focuses on high risk courses	1	2	3	4	5	1	2	3	4	5
37.	Check students progress	1	2	3	4	5	1	2	3	4	5
38.	Helps with study skills required for academic work	1	2	3	4	5	1	2	3	4	5
39.	Provides support for learning tasks	1	2	3	4	5	1	2	3	4	5
40.	Give us feedback about our work	1	2	3	4	5	1	2	3	4	5

SECTION C

1. Please mention any additional information regarding what prevails in your University academic support programme (UASP). Use the space below.

2. Please include any additional information regarding how you would like your academic support programme to be. Use the space below.

APPENDIX C

QUESTIONNAIRE

This is a questionnaire on: Prevailing and preferred learning practices in university student support programmes.

1. You are expected to assign values to reflect how you perceive your university academic support programme. The instructions on how to assign values on each item accompany this questionnaire .

2. Please rate every statement.

3. You are also requested to provide additional information in accordance with the instructions accompanying this questionnaire.

4. Your information will be confidential, therefore do not write your name or the name of your academic institution in this questionnaire.

Thank you for your cooperation.

JD ADAMS (Senior Lecturer)
Department of Educational Psychology and Special Education
University of Zululand
Private Bag X1001
KWA-DLANGEZWA
3886

Please turn on the next page.

SECTION A

B. BIOGRAPHICAL INFORMATION

Please make a cross (X) in the appropriate space or box provided.

1. Gender

1	2
Female	Male

2. Age

1	2	3	4	5
Below 20	21 - 30	31 – 40	41-50	50 and above

3. Faculty

1	2	3	4
Arts	Commerce/Administration/Law	Education	Science
5 Other.....			

4. Your level

1	2	3	4	5
1st year	2nd year	3rd year	4th year	5 year and more

SECTION B

How would you describe your University Academic Support Programme (UASP)?

INSTRUCTIONS :

Please assign a value 1, 2, 3, 4 or 5 to every one of the following characteristics by encircling the appropriate number in both section A and B.

A = My UASP at the moment (Prevailing)

B = The way I would like it to be (Preferred)

Key: Exactly like this **5** Somewhat like this **4** Not sure **3** Not like this **2** Not like this at all **1**

	ITEM	A PREVAILING (My UASP at the moment)					B PREFERRED (The way I would like my UASP to be)				
1.	Develops a sense of responsibility in us	1	2	3	4	5	1	2	3	4	5
2.	Success oriented						1	2	3	4	5
3.	Helps to write my thoughts down clearly	1	2	3	4	5	1	2	3	4	5
4.	Helps me in planning and organising my studying	1	2	3	4	5	1	2	3	4	5
5.	Enables us to understand academic content	1	2	3	4	5	1	2	3	4	5
6.	Sets clear objectives	1	2	3	4	5	1	2	3	4	5
7.	Helps students with English competence	1	2	3	4	5	1	2	3	4	5
8.	Provides students with reading skills	1	2	3	4	5	1	2	3	4	5
9.	Helps students to improve their writing skills	1	2	3	4	5	1	2	3	4	5
10.	Leads to conceptual development	1	2	3	4	5	1	2	3	4	5
11.	Develops my cognitive abilities	1	2	3	4	5	1	2	3	4	5
12.	Clarifies elements of content	1	2	3	4	5	1	2	3	4	5
13.	Enables students to apply concepts	1	2	3	4	5	1	2	3	4	5
14.	Provides us with information processing skills	1	2	3	4	5	1	2	3	4	5
15.	Develops me academically	1	2	3	4	5	1	2	3	4	5
16.	Encourages critical thinking						1	2	3	4	5
17.	Equips one with communication skills	1	2	3	4	5	1	2	3	4	5
18.	Focuses on high risk students	1	2	3	4	5					
19.	Gives me a chance to discuss areas of difficulty with my mentor	1	2	3	4	5	1	2	3	4	5

Key: Exactly like this **5** Somewhat like this **4** Not sure **3** Not like this **2** Not like this at all **1**

	ITEM	A PREVAILING (My UASP at the moment)					B PREFERRED (The way I would like my UASP to be)				
20.	Accommodate students problems						1	2	3	4	5
21.	Helps new students to adjust to university life	1	2	3	4	5	1	2	3	4	5
22.	Instills creativity	1	2	3	4	5	1	2	3	4	5
23.	Leads to self-reliance						1	2	3	4	5
24.	Helps me to identify my strengths	1	2	3	4	5	1	2	3	4	5
25.	Facilitates independence						1	2	3	4	5
26.	Develops a sense of confidence in me	1	2	3	4	5	1	2	3	4	5
27.	Provides opportunities for skills development	1	2	3	4	5	1	2	3	4	5
28.	Provides personal development	1	2	3	4	5	1	2	3	4	5
29.	Provides interpersonal skills						1	2	3	4	5
30.	Makes me to be confident	1	2	3	4	5	1	2	3	4	5
31.	Motivates students	1	2	3	4	5	1	2	3	4	5
32.	Has the well-being of students as a major objective	1	2	3	4	5	1	2	3	4	5
33.	Is very ethical						1	2	3	4	5
34.	Provides us with students mentors						1	2	3	4	5
35.	Check students progress	1	2	3	4	5	1	2	3	4	5
36.	Helps with study skills required for academic work	1	2	3	4	5	1	2	3	4	5
37.	Provides support for learning tasks						1	2	3	4	5
38.	Give us feedback about our work	1	2	3	4	5	1	2	3	4	5

SECTION C

1. Please mention any additional information regarding what prevails in your University academic support programme (UASP). Use the space below.

2. Please include any additional information regarding how you would like your academic support programme to be. Use the space below.

APPENDIX D

SECTION A: BIOGRAPHICAL INFORMATION

RESPONDENT NO.	SEX (F= Female, M= Male)	AGE IN YEARS	FACULTY	YEAR
1	M	21-30	Education	2
2	F	21-30	Education	2
3	F	B20	Education	4
4	F	21-30	Education	2
5	F	21-30	Education	2
6	M	21-30	Education	2
7	F	21-30	Education	2
8	F	21-30	Education	2
9	F	21-30	Education	2
10	M	21-30	Education	2
11	M	21-30	Education	2
12	M	B20	Education	2
13	M	21-30	Education	2
14	F	21-30	Education	2
15	M	21-30	Education	2
16	F	21-30	Education	2
17	F	B20	Education	2
18	F	31-40	Education	2
19	F	21-30	Education	2
20	F	21-30	Education	2
21	F	31-40	Education	2
22	M	B20	Education	2
23	F	B20	Arts	2
24	F	21-30	Arts	2
25	F	21-30	Education	2
26	F	21-30	Arts	2
27	M	21-30	Arts	2
28	F	21-30	Education	2
29	F	B20	Science	2
30	M	21-30	Science	3
31	M	21-30	Science	3
32	F	21-30	Education	3
33	F	B20	Science	3
34	F	21-30	Administration	3
35	F	B20	Arts	3
36	F	B20	Science	2
37	F	21-30	Science	3
38	F	21-30	Science	3
39	F	21-30	Science	3
40	F	21-30	Science	3
41	M	21-30	Science	3
42	F	B20	Science	3
43	F	B20	Science	2
44	F	21-30	Science	2
45	F	21-30	Science	2
46	F	B20	Science	2
47	F	B20	Science	2

48	F	21-30	Science	2
49	F	21-30	Science	2
50	F	21-30	Science	2
51	M	B20	Science	2
52	F	21-30	Science	3
53	F	B20	Science	2
54	F	21-30	Science	3
55	M	21-30	Science	3
56	F	21-30	Commerce	3
57	M	21-30	Commerce	3
58	F	21-30	Arts	2
59	F	21-30	Arts	2
60	F	21-30	Arts	3
61	F	21-30	Arts	2
62	F	21-30	Commerce	3
63	F	21-30	Commerce	3
64	F	21-30	Commerce	3
65	F	21-30	Commerce	3
66	F	21-30	Administration	3
67	F	21-30	Commerce	3
68	M	21-30	Commerce	3
69	M	21-30	Science	3
70	F	21-30	Commerce	3
71	M	B20	Commerce	3
72	F	21-30	Commerce	3
73	F	21-30	Commerce	3
74	F	B20	Science	2
75	F	21-30	Commerce	3
76	F	21-30	Commerce	3
77	F	21-30	Science	3
78	F	21-30	Commerce	3
79	F	B20	Education	2
80	F	21-30	Arts	2
81	F	21-30	Commerce	3
82	F	21-30	Administration	2
83	M	21-30	Administration	3
84	F	21-30	Administration	3
85	F	21-30	Administration	3
86	F	31-40	Administration	2
87	M	21-30	Administration	2
88	F	21-30	Administration	2
89	M	21-30	Administration	2
90	F	21-30	Administration	2
91	F	21-30	Administration	2
92	M	21-30	Administration	2
93	F	21-30	Administration	2
94	F	21-30	Administration	2
95	F	21-30	Administration	2
96	M	21-30	Administration	2
97	M	31-40	Administration	2
98	M	31-40	Administration	2
99	M	31-40	Administration	2

100	M	21-30	Administration	2
101	M	21-30	Commerce	2
102	F	21-30	Arts	2
103	M	21-30	Arts	2
104	M	B20	Arts	2
105	F	21-30	Arts	2
106	M	21-30	Arts	2
107	F	21-30	Arts	2
108	F	B20	Arts	2
109	M	21-30	Arts	2
110	M	21-30	Arts	2
111	M	B20	Arts	2
112	M	21-30	Arts	2
113	M	B20	Arts	2
114	F	B20	Arts	2
115	M	B20	Arts	2
116	F	B20	Arts	2
117	M	21-30	Arts	2
118	F	41-50	Arts	2
119	F	B20	Arts	2
120	F	21-30	Arts	2

APPENDIX E : NUMBER 2

SECTION C: RESPONSE TO SECTION B OF THE QUESTIONNAIRE ON PREFERRED PRACTICES PREFERED (THE WAY I WOULD LIKE MY UASP TO BE)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	TOTAL	Perception P = Positive N = Negative
1	4	5	5	5	5	5	5	5	4	3	5	3	1	5	3	3	2		3	1	4	5	5	5	3	4	3	2	5	5	5	5	3	4	5	5	5	5	160	P
2	1	5	4	2	4	2	3	4	4	3	2	1	3	3	4	2	4		3	5	5	5	3	4	1	1	3	2	3	3	2	3	2	3	3	5	1	5	113	N
3	2	4	2	5	3	3	4	5	5	2	2	5	3	3	4	1	5		5	5	4	2	5	4	3	1	1	5	5	2	2	3	4	3	4	3	2	5	126	P
4	5	5	5	5	4	5	5	5	5	4	5	5	5	5	5	5	5		5	5	5	4	5	4	5	5	5	4	5	5	5	5	5	5	5	5	5	5	180	P
5	4	3	3	5	5	4	5	5	5	4	5	5	5	4	5	5	5		5	5	5	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	175	P
6	1	3	4	4	4	1	4	4	3	3	5	2	5	4	3	5	4		5	5	5	5	3	5	1	3	5	4	3	5	4	4	3	5	2	3	3	1	133	P
7	4	3	3	4	1	1	2	4	2	2	3	2	4	3	2	5	3		2	1	3	5	4	2	1	3	3	3	2	5	5	5	2	4	3	4	5	5	115	N
8	4	4	1	4	4	3	3	4	4	3	5	5	4	5	5	3	4		5	1	4	5	5	5	5	5	5	5	4	5	4	1	3	5	3	4	3	5	147	P
9	5	5	5	5	5	4	4	5	5	5	5	5	4	5	5	4	3		3	3	5	5	4	3	4	4	3	2	1	5	4	5	2	1	5	5	5	3	151	P
10	5	4	5	5	5	5	5	5	3	5	5	5	4	3	5	4	5		1	4	5	2	4	3	3	1	5	5	3	5	5	5	3	2	4	4	4	5	151	P
11	4	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	178	P
12	5	4	5	5	3	3	5	5	5	3	3	3	3	5	5	4	3		5	5	5	3	3	4	5	5	5	5	4	5	5	3	3	3	5	4	3	5	164	P
13	5	4	3	5	3	4	5	3	4	5	5	3	4	3	5	4	3		3	5	5	5	4	4	3	5	5	5	5	3	5	5	3	5	5	5	3	5	156	P
14	5	4	5	5	3	4	3	5	5	3	5	5	4	5	5	5	5		5	5	3	4	5	5	5	3	5	3	5	5	5	4	5	5	5	5	5	5	168	P
15	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	3	3		4	5	4	5	5	5	5	5	3	3	4	4	3	1	1	5	5	3	5	5	146	P
16	5	4	3	5	4	3	5	5	5	1	3	4	5	5	5	5	5		5	4	5	3	2	5	2	5	5	2	4	5	5	4	2	2	3	5	4	4	148	P
17	5	2	4	5	4	5	4	4	5	4	5	3	2	5	5	5	5		5	4	5	3	2	5	2	5	5	2	4	5	5	4	2	2	3	5	4	3	119	N
18	3	4	4	3	3	3	4	3	4	2	3	5	3	2	2	3	4		3	4	3	3	2	3	3	4	3	3	3	4	4	3	3	3	4	3	3	3	119	N
19	5	5	4	5	5	5	5	5	5	5	5	3	3	5	5	5	5		5	5	4	4	5	3	5	4	4	4	5	4	4	4	3	5	4	4	5	4	166	P
20	5	3	4	4	5	4	4	4	4	5	3	5	5	5	5	3	5		4	5	5	5	2	3	5	5	5	5	5	3	3	4	4	5	5	5	5	5	160	P
21	5	5	5	5	4	5	4	4	4	5	5	2	5	5	3	5	5		5	5	3	5	5	5	4	3	5	5	5	5	5	4	4	4	5	5	5	5	168	P
22	5	5	5	3	4	3	5	5	4	5	3	3	4	5	3	5	3		4	5	5	4	5	5	1	2	3	3	4	5	3	3	4	1	5	5	4	2	143	P
23	4	2	4	2	1	4	2	4	2	1	2	5	2	4	2	4	2		4	1	3	2	3	5	4	4	2	4	4	2	2	4	2	4	4	2	2	2	107	N
24	5	3	5	5	5	5	5	5	5	5	5	5	5	5	5	3	5		5	3	5	5	3	2	4	5	5	5	5	5	5	5	5	2	5	5	5	5	170	P
25	5	5	5	5	5	5	5	5	5	5	5	5	3	3	5	5	4		5	5	5	4	5	4	5	3	4	4	5	5	5	4	4	5	5	4	5	5	171	P
26	5	5	5	5	5	5	5	5	5	5	5	4	4	5	5	5	5		5	5	5	4	3	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	178	P
27	5	5	4	5	5	5	5	5	5	5	5	4	4	5	5	5	5		5	5	5	4	3	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	175	P
28	5	5	4	5	5	5	5	5	5	5	5	4	4	5	5	5	5		5	5	5	4	3	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	178	P
29	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5		5	5	5	4	3	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	178	P
30	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		5	5	5	4	3	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	178	P
31	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		5	5	5	4	3	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	178	P
32	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		5	5	5	4	3	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	178	P
33	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		5	5	5	4	3	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	178	P
34	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		5	5	5	4	3	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	178	P
35	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		5	5	5	4	3	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	178	P
36	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		5	5	5	4	3	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	178	P
37	4	4	3	4	5	3	3	5	5	4	5	3	5	4	5	3	5		5	5	5	5	5	4	5	5	5	5	5	5	5	4	4	5	3	5	4	5	168	P
38	3	5	4	3	5	4	5	4	4	5	5	5	4	4	5	4	5		5	5	4	5	5	4	5	5	5	4	4	5	5	4	4	5	4	5	5	5	162	P
39	5	5	4	4	5	4	4	5	5	5	5	5	5	5	5	3	3		4	5	5	3	5	3	4	4	4	3	5	5	5	3	4	5	5	3	5	5	162	P
40	5	4	4	5	4	3	5	5	5	2	4	5	1	5	5	5	3		5	1	3	5	4	5	3	5	5	5	3	3	5	5	4	3	3	4	5	1	149	P
41	5	4	4	5	4	3	5	5	5	5	5	5	5	5	5	5	5		5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	171	P
42	5	3	3	3	2	4	5	5	5	5	5	4	5	4	5	4	5		5	5	5	5	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	171	P
43	3	3	3	4	4	3	3	3	3	3	3	3	3	3	3	3	3		3	3	3	3	5	5	5	4	5	4	5	5	4	3	4	5	4	5	5	5	138	P
44	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		3	5	5	5	5	3	5	5	5	5	5	5	5	5	5	4	5	5	5	5	148	N
45	5	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		5	5	5	5	5	5	5	6	5	5	5	5	5	5	5	4	5	5	6	5	162	P
46	5	5	4	4	3	4	5	5	5	5	5	5	5	5	5	5	3		4	3	4	5	5	4	4	5	5	5	5	5	5	4	3	5	5	5	5	5	168	P
47	3	3	3	3	5	3	3	3	3	3	3	3	3	3	3	3	3		3	5	5	5	5	4	4	4	4	4	5	5	4	5	4	5	5	5	5	5	143	P
48	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		3	5	3	4	5	5	4	4	5	4	5	5	5	5	4	4	4	5	5	5	140	P
49	3	3	3	4	4	4	5	5	5	4	4	5	5	5	5	4	5		5	5	5	5	5	5	4	4	5	5	5	4	5	5	5	5	5	4	4	4	168	P
50	5	5	5	4	4	4	4	5	5	5	5	4	4	5	5	5	5		5	3	5	4	4	5	5	5	5	4	5	5	5	4	5	5	5	5	5	4	171	P

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51	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	5	5	4	4	5	4	5	5	4	5	5	5	5	4	4	4	4	178	P
52	4	5	4	4	5	5	4	5	5	4	5	4	4	4	4	5	5	5	3	5	5	4	5	5	5	4	4	5	5	5	5	4	4	4	5	5	5	168	P
53	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	5	5	4	5	4	4	5	5	5	5	5	4	4	5	5	175	P
54	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	5	5	5	5	5	5	5	5	5	3	3	5	5	5	5	5	5	5	5	145	P
55	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	4	4	3	5	5	3	3	3	3	3	3	3	3	116	N
56	3	5	3	5	5	5	5	3	5	3	4	5	5	5	3	5	5	5	3	5	5	5	3	5	4	5	5	4	5	4	5	5	5	5	5	5	4	166	P
57	4	4	5	3	3	4	4	5	5	5	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	175	P
58	3	2	4	4	5	3	3	3	3	3	3	3	3	3	3	3	3	3	2	5	3	4	5	5	5	5	5	5	5	5	2	3	5	3	4	4	5	137	P
59	5	5	4	5	5	4	5	5	5	4	5	5	5	5	5	3	3	5	4	4	4	5	5	5	5	5	5	3	5	5	5	4	5	5	5	4	5	171	P
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61	3	3	5	5	4	5	5	5	5	4	5	5	4	5	5	5	5	4	5	5	4	3	4	4	5	3	4	5	5	5	3	3	5	5	5	5	5	165	P
62	3	5	5	3	5	4	5	4	4	4	5	5	3	5	3	5	4	5	4	2	4	5	5	5	5	5	4	5	5	5	5	5	4	5	5	5	5	165	P
63	5	5	4	4	4	5	5	5	5	5	4	4	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	2	5	5	5	5	175	P
64	5	5	5	4	5	2	2	1	5	1	5	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5	3	5	5	5	2	5	2	2	2	5	155	P
65	5	5	5	5	3	5	5	5	5	5	5	5	5	5	5	3	5	3	5	5	3	5	5	3	3	3	5	2	4	3	3	3	2	3	5	4	3	153	P
66	3	2	3	5	3	4	5	3	5	3	4	5	4	5	4	5	5	5	3	2	5	5	5	3	5	5	3	1	4	5	1	2	5	4	5	5	4	145	P
67	4	5	4	5	5	4	2	4	4	3	4	3	4	2	3	5	5	4	5	5	4	4	5	3	4	3	3	3	1	5	5	4	1	5	5	5	5	148	P
68	4	5	5	4	3	5	5	5	5	4	4	4	4	1	1	5	4	1	1	1	1	1	1	1	1	1	2	4	4	1	1	1	3	1	1	2	1	98	N
69	2	3	5	2	3	3	4	3	5	3	4	4	3	4	3	2	3	3	3	5	3	5	3	5	3	4	2	5	4	2	4	2	5	4	3	3	5	129	P
70	2	2	5	5	5	5	5	5	5	5	3	5	5	5	5	5	5	5	5	5	5	5	5	3	5	3	5	4	5	5	5	5	5	5	5	5	5	174	P
71	4	5	5	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	178	P
72	5	5	5	4	4	5	4	5	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	5	5	5	5	5	5	178	P
73	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	3	5	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	179	P
74	5	5	5	5	4	4	5	4	5	5	5	4	5	4	5	5	5	5	5	5	5	5	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	174	P
75	5	4	5	5	5	4	5	5	5	5	3	3	4	4	4	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5	172	P
76	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	185	P
77	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	185	P
78	3	3	4	2	5	5	5	5	4	3	3	4	4	4	5	5	5	5	1	5	2	5	5	5	4	4	4	3	4	3	4	5	5	5	5	5	5	153	P
79	3	3	5	5	2	5	3	1	4	5	5	5	5	3	5	1	5	5	4	4	2	3	4	5	5	5	3	5	5	5	2	2	5	5	5	4	4	147	P
80	5	5	5	5	5	5	5	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	183	P
81	4	4	3	3	4	3	3	5	5	4	3	3	4	4	2	1	5	5	5	3	4	5	3	4	3	4	5	3	4	5	5	3	4	2	5	5	2	139	P
82	5	5	5	5	5	5	5	5	4	4	5	4	5	5	4	5	5	4	5	5	5	5	4	3	5	4	3	4	4	3	4	4	5	3	5	4	4	164	P
83	4	4	4	5	5	5	5	4	4	5	4	4	5	4	5	4	5	5	4	5	5	4	4	5	5	4	4	5	5	5	5	4	4	4	5	5	5	168	P
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85	4	5	5	5	4	4	4	4	5	5	5	4	4	4	4	4	5	4	5	5	5	5	5	4	4	5	5	4	3	4	5	5	4	5	4	5	5	166	P
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87	5	4	4	5	5	5	5	4	5	5	4	4	5	4	5	5	4	5	5	5	4	4	4	5	5	5	5	5	5	3	4	4	4	4	4	5	5	168	P
88	4	4	5	5	3	4	4	4	4	5	4	5	4	4	5	5	4	5	5	5	4	5	4	4	5	5	4	5	5	4	4	4	5	5	5	5	5	166	P
89	4	4	4	5	5	5	5	4	5	5	5	4	5	5	4	4	5	5	4	5	5	4	4	4	4	4	4	5	5	4	4	4	4	5	5	5	5	167	P
90	5	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	5	5	5	4	4	178	P
91	5	4	4	4	4	4	5	5	5	5	4	4	4	5	5	5	4	4	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	167	P
92	4	5	4	5	5	4	5	4	5	4	4	4	5	5	5	4	4	4	5	4	4	4	5	5	4	4	5	4	5	5	4	4	4	5	5	5	5	166	P
93	4	4	4	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	5	5	4	4	4	4	4	4	4	4	4	5	5	5	5	4	4	5	5	164	P
94	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	4	5	4	5	3	4	5	4	4	5	4	4	4	4	4	4	5	5	160	P
95	4	4	4	5	5	4	5	5	4	4	5	5	4	5	4	5	4	5	5	3	3	4	4	5	5	5	5	5	4	4	4	5	4	5	3	4	4	162	P
96	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5	4	4	4	4	5	4	4	4	4	5	5	5	5	5	5	175	P
97	4	4	5	5	4	5	4	4	5	5	5	4	4	5	5	5	4	4	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	164	P
98	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	4	4	4	4	4	4	5	5	5	5	5	5	5	163	P
99	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	185	P
100	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	185	P
101	5	5	4	4	4	4	4	5	4	5	4	5	4	4	4	4	4	5	5	5	5	5	4	4	4	4	5	5	5	4	4	4	4	5	5	5	5	165	P
102	2	3	5	5	5	3	4	5	5	3	5	5	5	4	4	3	5	5	2	5	5	5	5	4	5	5	5	4	5	5	4	3	5	5	5	5	4	162	P
103	2	4	5	5	5	5	5	5	4	5	5	4	5	4	5	5	5	2	2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	172	P
104	5	4	2	3	5	5	5	4	5	3	3	5	5	5	3	4	5	5	5	5	4	4	4	5	5	4	3	5	5	4	3	5	5	5	5	5	5	162	P
105	1	2	1	4	4	4	1	4	1	2	2	4	1	1	1	2	2	4	5	4	1	4	2	4	4	1	2	4	4	4	2	4	5	5	5	5	5	111	P
106	5	5	5	4	5	1	5	4	5	5	4	2	5	5	5	5	5	5	5	5	5	5	4	5	3	5	4	3	3	4	4	5	4	5	5	5	5	164	P
107	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	183	P

108	5	3	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	182	P
109	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	3	5	5	5	4	5	5	5	5	182	P
110	5	4	5	4	5	4	5	5	5	4	5	5	4	5	5	5	4		4	4	5	4	5	4	4	5	4	5	5	5	4	4	5	5	5	5	5	5	5	5	5	5	171	P
111	4	5	4	5	5	5	5	5	4	4	5	4	4	5	4	5	5		5	5	5	4	2	5	5	4	5	5	4	5	4	5	3	5	5	5	5	5	5	5	5	5	169	P
112	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		2	5	5	5	5	5	5	5	5	5	5	5	5	5	3	5	5	5	5	5	5	5	5	5	180	P
113	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	185	P
114	4	4	5	5	5	5	5	5	4	4	5	5	5	4	4	5	4		5	3	5	5	5	4	5	5	5	5	5	5	5	4	4	3	4	5	5	5	5	4	4	4	170	P
115	1	2	2	1	1	2	1	3	1	2	2	2	1	1	5	1	1		1	5	5	4	5	5	5	4	5	5	5	5	5	4	4	4	4	5	5	5	5	4	4	4	120	P
116	3	2	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1		1	2	1	1	1	3	3	1	1	1	1	1	3	1	3	3	1	1	1	4	58	N				
117	3	5	4	5	5	5	5	5	4	3	5	4	4	4	4	4	3		3	3	4	4	3	3	2	2	3	3	3	5	5	4	3	3	3	4	5	5	142	P				
118	3	2	2	2	4	4	4	3	1	1	4	4	4	4	4	4	3		4	5	4	3	2	4	4	4	4	4	4	4	4	3	4	4	4	3	3	4	128	P				
119	4	5	4	5	5	4	4	4	4	4	4	5	3	3	3	5	5		4	5	5	4	5	5	4	4	4	4	4	4	4	5	3	4	5	5	4	5	188	P				
120	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		5	5	5	5	5	5	5	5	5	5	5	5	5	5	3	4	5	5	5	5	182	P				
	497	501	489	510	511	501	520	525	525	487	511	502	503	514	513	505	500	0	516	508	530	516	521	531	508	525	524	520	516	544	536	512	471	510	535	549	532	563	19115					

$$\Sigma\ 19115/120 = 159.2917$$

$$\Sigma 19115/37 = 516$$