

# LEARNER VARIABLES AS PREDICTORS OF ESL PROFICIENCY

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## **DEDICATION**

This study is dedicated to my grandmother, Margaret Prinsloo. Thank you for believing in my abilities and for all your love.

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## LIST OF ABBREVIATIONS

ASLPR	Australian Second Language Proficiency Ratings
AT	Ambiguity Tolerance
BICS	Basic Interpersonal Skills
CALP	Cognitive/Academic Language Ability
CELT	Comprehensive English Language Test
CLA	Communicative Language Ability
DLI	Defense Language Institute
EI	Extroversion/Introversion
ENG 111	Code for the ENG 111 Course
ENG 112	Code for the ENG 112 Course
EPI	Eysenck Personality Inventory
ESL	English Second Language
ESPO	Early School Personality Questionnaire
ETS	Educational Testing Service
FI/D	Field Independence/Dependence
FSI	Foreign Service Institute
GEFT	Group Embedded Figures Test
GFT	Gottschaldt Figures Test
HSPQ	High School Personality Questionnaire
HSRC	Human Sciences Research Council
IEA	International French Achievement Test Battery
JP	Judgement/Perception
JPQ	Jung Personality Questionnaire
LET	Literature Empathy Test
LLS	Language Learning Strategy
LLSs	Language Learning Strategies
L2	Second Language
MAT	Metropolitan Achievement Test
MLAT	Modern Language Aptitude Test
MME	Micro-Momentary Test
MTELP	Michigan Test of English Language Proficiency
N	Number of Subjects

NCL Str	Natural Communicative Language - Productive Structural Knowledge
PPT	Photographic Perception Test
PT	Personality Types/Traits
SAS	Statistical Analyses System
SD	Standard Deviation
SILL	Strategy Inventory for Language Learning
SLA	Second Language Acquisition
SN	Sensation/Intuition
TAT	Thematic Apperception Test
TF	Thinking/Feeling
TOEFL	Test of English as a Foreign Language
$\bar{X}$	Mean Score

## CHAPTER 1

### INTRODUCTION

#### 1.1 The Problem Defined

Since the early seventies research concerns in the field of second language learning and teaching have shifted from the methods of teaching to learner characteristics and their possible influence on the process of acquiring a second language. Researchers have attempted to isolate particular learner variables which might enhance or hinder progress in learning another language. Chapelle and Roberts (1986:28) state that more research is needed before statements can be made about which combination of learner variables is ultimately crucial to second language (L2) acquisition in a particular setting. The problem is, therefore, to identify those learner variables which might predict the English Second Language (ESL) proficiency of learners of English as a second language. This study is aimed in particular at investigating some variables which might be related to the ESL proficiency of first year Afrikaans university students studying English as a second language at the Potchefstroom University.

Teachers and researchers have all observed that **some** students are more "successful" (i.e. more proficient) than others in learning a second language. Some individuals appear to be endowed with abilities to succeed; others lack those abilities. This observation has led researchers (e.g. Rubin, 1975; Stern, 1975; O'Malley & Chamot, 1990; Oxford, 1990; Vann & Abraham, 1990) to describe "good" and "bad" language learners in terms of personal characteristics, learning styles and strategies.

A number of variables that account for some of the differences in how students learn have been identified:

- \* attitude and motivation (Gardner & Lambert, 1972; Gardner & Smythe, 1975; Gardner **et al.**, 1977),
- \* personality types/traits (Chastain, 1975; Guiora **et al.**, 1975; Brodkey & Shore, 1976; Busch, 1982),
- \* learning styles (especially the field independence/dependence distinction) (Witkin **et al.**, 1977a; 1977b; Birckbichler & Omaggio, 1978; Hosenfeld,

1979; Hansen & Stansfield, 1981; 1982; Chapelle & Roberts, 1986; Ramirez, 1986; Reid, 1987),

- \* language learning strategies (Bialystok & Fröhlich, 1978; Bialystok, 1981; Wenden, 1983; 1986a; 1986b; O'Malley et al., 1985a; 1985b; Wenden & Rubin, 1987; Oxford, 1989; O'Malley & Chamot, 1990; Oxford, 1990).

It is difficult to take all these learner variables into account when investigating their influence on ESL proficiency. The scope of this study is, therefore, limited to the investigation of three major learner variables, viz. field independence/dependence (FI/D), language learning strategies (LLSs) and personality types/traits (PT). A review of the literature indicates that variables such as attitude, aptitude and motivation have been extensively studied and documented with fairly consistent results, whereas research investigating FI/D, LLSs and PT offers mixed and somewhat inconsistent conclusions. For example, Hansen and Stansfield (1981:365) found positive linear correlations ranging from  $r=0,20$  to  $r=0,43$ ,  $p<0,001$  between student FI/D and performance on various measures of Spanish proficiency. It is clear that these correlations are rather modest. However, Chapelle and Roberts (1986:37) found correlations of  $r=0,55$  and  $r=0,75$ ,  $p<0,001$  between FI and TOEFL scores administered at the beginning and end of the semester, respectively. These correlations are significantly higher than those found by Hansen and Stansfield (1981:365), indicating a stronger relationship between field independence and proficiency. The findings of Bialystok and Fröhlich (1978:327-336), on the other hand, attributed a very minor role in second language learning to field independence.

O'Malley et al. (1985a:43) state that the findings from their study suggest that the extension of recent research on language learning strategies in Second Language Acquisition (SLA) is warranted. Language learning strategy research, for all its promise is, as Skehan (1989:98) points out, still "embryonic", with conflicting methods and results and few unequivocal findings. Oxford et al. (1988:327) state that it would be useful to replicate studies in similar kinds of settings (e.g. replicate a university study in another university) using the same research methods to see if the findings are the same.

According to Reiss (1985:511) personality variables are undoubtedly the most "elusive" of all the learner variables that have been studied. Brødkey and Shore

(1976:153-162) found student personality to be a strong predictor of good and poor language learning behaviour. Skehan (1989:100-118), on the other hand, concludes that personality plays a much more minor role than LLSs. Busch's (1982:109) hypothesis that extroverted students would be more proficient than introverted students was not supported. According to Brown (1987:110), however, Busch's study was done in one culture with one group of learners, and much more research is needed before conclusions can be drawn.

It is clear that the FI/D, LLSs and PT of students need to be investigated further in order to determine if there is a statistically significant as well as a practically significant relationship between these variables and ESL proficiency. The FI/D, LLSs and PT of Afrikaans first year students have not been investigated; therefore, the focus of this study will be on Afrikaans ESL learners in particular.

The following questions need to be addressed:

- \* Is there a statistically significant as well as a practically significant relationship between FI/D and ESL proficiency?
- \* Is there a statistically significant as well as a practically significant relationship between LLSs and ESL proficiency?
- \* Is there a statistically significant as well as a practically significant relationship between PT and ESL proficiency?

A relationship can be regarded as statistically significant if the results are significant at the specified alpha (i.e. probability of chance occurrence). Alpha is established as a criterion, and results either meet the criterion or they do not. In behavioural research, alpha is frequently set at  $p < 0,05$  or  $p < 0,01$  (i.e. the odds that the findings are due to chance are either 5 in 100 or 1 in 100) (cf. Thomas & Nelson, 1990:100-102). A relationship can be regarded as practically significant if the results are of practical value to the researcher, language practitioner or teacher. Cohen (1977:20-27; 77-81; 223-227) has established various scales according to which a relationship or difference between means can be regarded as practically significant. For example,  $r = 0,5$  indicates a large effect size which can, therefore, be regarded as practically significant (cf. section 6.6). Very few studies, if any, conducted in the SLA field have indicated the practical significance of the relationships that were investigated. According to Skehan (1991:290) researchers may be well advised to indicate the

statistical significance as well as the practical significance of a relationship, because it is necessary to know whether a statistically significant relationship is also practically significant, especially if researchers want to implement some of their research findings in, for example, the classroom (cf. section 6.6).

Field independence/dependence and personality types/traits are variables derived from work in mainstream psychology which have been adapted for language learning, whereas language learning strategies are directly related to language learning. As a result, a number of specific questions regarding language learning strategies are investigated. Various researchers (e.g. Ehrman & Oxford, 1989; Oxford & Nyikos, 1989; Oxford, 1989; O'Malley & Chamot, 1990) have shown that variables such as level of proficiency, sex, course status and major field of study can influence the choice of language learning strategies as well as their use (cf. section 4.7). In addition, Skehan (1991:276-277) considers learner strategies to be important and relevant for acquisition research. Therefore, the following questions regarding LLS use will also be addressed specifically:

- \* Is there a practically significant difference in LLS use between ENG 111 and ENG 112 students?
- \* Is there a practically significant difference in LLS use between males and females?
- \* Does course status and major field have a practically significant influence on LLS use?

## **1.2 Purpose of this Study**

The aim or purpose of this study is to establish the relationship between FI/D, LLSs, PT and ESL proficiency. The aim is, therefore, to determine which of these variables can be considered to be the most significant predictor(s) of English Second Language proficiency.

## **1.3 Hypotheses**

This study is based on the following hypotheses:

- \* There is a statistically significant relationship between FI/D and ESL proficiency, as measured by the TOEFL.

- \* There is a statistically significant relationship between LLSs and ESL proficiency, as measured by the TOEFL.
- \* There is a statistically significant relationship between personality types (JPQ) and personality traits (HSPQ) and ESL proficiency, as measured by the TOEFL.
- \* LLSs are the most significant predictors of ESL proficiency within the context of the variables investigated in this study.

#### **1.4 Method of Research**

Relevant literature on the importance of individual learner differences and also the three variables that were investigated in this study, viz. field independence/dependence, language learning strategies and personality types/traits were reviewed in detail. A total number of 305 Afrikaans first year students at the Potchefstroom University taking English were included in this study. Correlational and multivariate research designs were used. The data were analysed by using the "Statistical Analyses System" (SAS) programmes (1988). The analyses used in this study (e.g. Pearson product-moment correlations, canonical correlations and stepwise multiple regression) were done with the assistance of the statistical consultation service of the PU for CHE.

#### **1.5 Programme of Study**

Chapter 2 provides a brief introduction to some of the most commonly occurring learner differences which might influence the proficiency of English second language learners and the problems experienced by most researchers with regard to the identification and classification of learner variables.

Chapter 3 focuses on the field independence/dependence construct and its relationship with SLA. Various studies which have attempted to provide evidence for a relationship between FI/D and SLA are discussed critically.

Chapter 4 focuses on the language learning strategies used by second language learners. In this chapter an attempt is made to place LLSs within a cognitive framework, various classification systems of LLSs are discussed and evaluated, and the importance of LLSs for second language proficiency is established.

Chapter 5 focuses on the relationship between various personality types/traits and SLA. Various studies which have attempted to provide evidence for a relationship between personality and SLA are discussed critically.

Chapter 6 focuses on the methodology employed in this study.

In chapter 7 the collected data are presented and discussed.

Chapter 8 contains a conclusion, implications for second language acquisition and second language teaching as well as recommendations for future research.

## **CHAPTER 2**

### **INDIVIDUAL LEARNER DIFFERENCES**

#### **2.1 Introduction**

One of the major conundrums in the SLA field is the question of differential success among language learners. Most research in applied linguistics and SLA has been experimental in nature. In contrast, far fewer studies have been conducted into the **differences** between language learners (cf. Skehan, 1991:276). Teachers and researchers have observed that all children with normal faculties and given normal circumstances master their mother tongue. Unfortunately, language mastery is not often the outcome of SLA. Furthermore, second language learners achieve a much broader range of language proficiency (e.g. beginning, intermediate and advanced levels) than first language learners. Research on Second Language Acquisition has identified a variety of variables hypothesized to account for some of the variance in the level of proficiency attained by individuals learning a second language. It is important that teachers understand more thoroughly the individual differences which characterize second language learning, because as Genesee (1978:490) mentions, "individual differences in learning is a basic educational concern". A host of factors have been proffered to explain differential success among second language learners. Only a few of these factors are discussed in order to illustrate the complexity of this issue.

The aim of this chapter is to illustrate the difficulties facing researchers with regard to the identification and classification of learner variables and to provide a brief introduction to some of the most commonly occurring learner differences which might influence the proficiency of English second language learners. The concept of proficiency is also discussed briefly, because ESL "proficiency" functions as the criterion measure in this study.

#### **2.2 Identification and Classification of Learner Variables**

According to Brown (1981:113) the process of learning a second language is one that involves a total commitment from the learner. A total physical, intellectual and emotional response is necessary to send and receive linguistic messages successfully. Language is inextricably bound up in virtually every aspect of human behaviour. The identification and classification of the different individual learner variables have,

therefore, proved to be problematic, because it is difficult to isolate one component without reference to other domains.

A major problem is that it is not always possible to observe directly qualities such as aptitude, empathy, anxiety, adventuresomeness or motivation. Ellis (1986:106) mentions that these "qualities" are merely labels for clusters of behaviours and consequently different researchers have used these labels to describe different sets of behavioural traits. As a result, a wide variety of terms have been used to describe the different phenomena. For example, Chastain (1975:153) uses the terms "affective and ability factors", Tucker *et al.* (1976:214) use the terms "affective, cognitive and social factors", while Gardner *et al.* (1979:305) use the terms "attitudinal/motivational characteristics". It is clear that researchers are confronted with a plethora of terms which are very often interrelated and as a result, various tests chosen to measure a particular concept have been regarded as invalid.

Various attempts have been made to impose some order on the wide variety of terms that are used. Ellis (1986:100) proposes a distinction between personal and general factors. Ellis (1986:100) states that: "Personal factors are highly idiosyncratic features of each individual's approach to learning a L2". Researchers (e.g. Naiman *et al.*, 1978; Schumann, 1980) have made use of questionnaires/interviews and diary studies in order to gain access to the personal experiences of learners in learning a L2. According to Ellis (1986:101) personal factors are heterogeneous, but can, nevertheless, be grouped under three headings: (1) group dynamics, (2) attitudes to the teacher and course materials, and (3) individual learning techniques. Personal factors are, therefore, an indication of how each individual approaches the language learning task. For example, learners will inevitably differ in their views about the kind of teacher they think is best for them. Some prefer a teacher who allows them "space" to pursue their own learning paths. Others prefer a teacher who structures the learning tasks more tightly (cf. Bailey, 1980).

Ellis (1986:100) states that general factors are "variables that are characteristic of all learners. They differ not in whether they are present in a particular individual's learning, but in the extent to which they are present, or the manner in which they are realized". General factors include: age, aptitude, cognitive style, motivation and personality. These are only a few of the factors which Ellis (1986:104) discusses; he mentions that many more factors can be included under the heading "general

factors". Table 1 provides a summarized version of Ellis' (1986) classification system.

Brown (1987:78-144) makes use of the more conventional distinction, namely between the cognitive and affective domains. Brown (1987:79-97) divides the cognitive domain into three sections: processes, cognitive styles and strategies of learning (cf. Table 2). According to Brown (1987:79-79) all human beings engage in certain universal "processes". For example, "we universally use principles of **transfer** in the process of learning and retention". Cognitive style is a term that "refers to consistent and rather enduring tendencies or preferences **within** an individual" (Brown, 1987:79). For example, an individual might be more visually oriented, or more tolerant of ambiguity. Strategies are "specific methods of approaching a problem or task". They are contextualized 'battle plans' (Brown, 1987:79). Brown further divides the affective domain into two facets: firstly, the intrinsic side of affectivity (e.g. personality factors within a person that contribute in some way to the success of language learning) and secondly, extrinsic factors (e.g. sociocultural variables that emerge as the second language learner brings two languages and also two cultures into contact) (cf. Table 2).

**Table 1: ELLIS' CLASSIFICATION OF LEARNER VARIABLES**

Classification Domain	Learner Variables
Personal factors	Group dynamics; Attitudes to the teacher and course materials; Individual learning techniques.
General factors	Age; Aptitude; Cognitive style; Motivation; Personality.

(Adapted from Ellis, 1986:100-104).

**Table 2: BROWN'S CLASSIFICATION OF LEARNER VARIABLES**

Classification Domain	Learner Variables
Cognitive	<b>Processes:</b> types of learning; transfer; interference; over-generalization; inductive and deductive reasoning. <b>Cognitive styles:</b> field independence/dependence; left- and right-brain functioning; tolerance of ambiguity; reflectivity and impulsivity. <b>Strategies of Learning:</b> cognitive, socioaffective and communicative strategies.
Affective (Intrinsic)	Personality: self-esteem; empathy; inhibition; anxiety; risk-taking; Motivation; Myers-Briggs character types.
Affective (Extrinsic)	Sociocultural variables: cultural stereotypes; acculturation; social distance; language; thought; culture.

(Adapted from Brown, 1987:78-141).

According to Ellis (1986:100) personal and general factors have social, cognitive and affective "aspects". If the two classification systems mentioned above are compared, it would seem as if Ellis' classification system "encompasses" the more conventional distinction used by Brown. In spite of the problems confronting researchers with regard to the identification and classification of learner variables, various research studies (e.g. Stern, 1975; Naiman et al., 1978; Genesee & Hamayan, 1980; Hansen & Stansfield, 1981; Chapelle & Roberts, 1986; Reid, 1987; O'Malley & Chamot, 1990; Oxford, 1990) have shown that individual learner differences are important when considering second language proficiency, as well as second language acquisition.

In the following two sections various studies, which have investigated the influence of a number of learner variables on English Second Language proficiency, are reviewed.

### **2.3 Personal Factors and ESL Proficiency**

A very important "personal factor" is the **language learning strategies** which students use to facilitate their language learning. Investigation of students' learning strategies is a relatively new endeavour in the field of second language learning. Rigney (1978:165-205) defines learning strategies as steps taken by the learner to aid the acquisition, storage and retrieval of information. Strategies are referred to as learning techniques, behaviours, or actions; or learning-to-learn, problem-solving, or study skills. Regardless of what they are called, Oxford and Crookall (1989:404) point out that "strategies can make learning more efficient and effective". Unlike most other characteristics of the learner, such as aptitude, attitude, personality and general cognitive style, learning strategies are readily teachable. This may prove to be an important fact for teachers to consider when trying to help the unsuccessful language learner.

Various researchers (e.g. Rubin, 1975; Stern, 1975; O'Malley et al., 1985a; Oxford, 1989; 1990) have identified certain strategies used by "good language learners". Appropriate learning strategies, therefore, help explain the performance of good language learners; similarly, inappropriate learning strategies aid in understanding the frequent failures of poor language learners (Hosenfeld, 1979:51-57; Reiss, 1981:121-128).

According to Wenden (1985:1-7) teachers can benefit from an understanding of what makes learners successful and unsuccessful and establish in the classroom a milieu for the realization of successful strategies. A more comprehensive discussion on language learning strategies is given in chapter 4.

## **2.4 General Factors and ESL Proficiency**

The possibility that certain cognitive or affective variables may explain individual learner differences in second language learning has been investigated by many researchers (e.g. Gardner & Lambert, 1972; Guiora *et al.*, 1972; 1975; Chastain, 1975; Schumann, 1975; Tucker *et al.*, 1976; Chihara & Oller, 1978; Brown, 1981; Hansen & Stansfield, 1981; Chapelle & Roberts, 1986; Chapelle, 1988). Researchers have tried to describe these individual differences in a systematic way. In the following sub-sections reference is made to age and various cognitive and affective (extrinsic and intrinsic) variables which have been found to influence the proficiency of language learners.

### **2.4.1 Age**

Does the age at which someone is first exposed to a second language, in the classroom or naturalistically, affect the acquisition of that language in any way? This question has generated a great deal of controversy. There is a noticeable lack of agreement in the conclusions reached by most researchers. This is a reflection of the complexity of the age issue. Some researchers claim that the SLA process does not differ for children and adults, and/or that adults are really better learners because they start off faster (e.g. Genesee, 1976; Neufeld, 1979; Flege, 1987). Others think the data ambiguous and/or that adults are at a disadvantage only in a few areas, especially phonology (e.g. Hatch, 1983).

A review of literature on the age issue reveals inconsistent conclusions among researchers. Some studies appear to show child superiority, some favour adults. Short-term studies seem to indicate that older learners have an advantage where rate of acquisition is concerned. That is, if learners at different ages are matched according to the amount of time they have been exposed to the L2, it is the older learners who reach higher levels of proficiency. However, the rate advantage is limited. Snow and Hoefnagel-Höhle (1978:1114-1128) found that age was a factor only when it came to morphology and syntax. They found that the adolescent and

adult groups outperformed the children after three months. Similar results favouring adults have also been found in short-term studies of phonology involving either teaching and testing phonemic contrasts in a new language (Olsen & Samuels, 1973:263-268) or simply testing subjects' ability to imitate target language sounds in nonsense words (Snow & Hoefnagel-Höhle, 1977:357-365). However, Tahta *et al.* (1981:363-372), for example, found that the ability of a group (N=231) of English school children, ranging in age from 5 to 15, to imitate French and Armenian pronunciation of isolated words and phrases **declined** steadily with increasing age.

According to Krashen *et al.* (1979:573-582) older children (i.e. adolescents) acquire a second language faster than younger children. Ervin-Tripp (1974:111-127) and Snow and Hoefnagel-Höhle (1978:1114-1128) have reported the superiority of older learners on rule-governed aspects of language. Longitudinal studies, on the other hand, have revealed that "younger is better" in the area of ultimate attainment, with only younger learners being able to achieve accent-free, native-like performance in a second language. Ellis (1986:105) states that "the longer the exposure to the L2, the more native-like L2 proficiency becomes". Burstall (1975:17), reviewing the results of the NFER project on the teaching of French in the primary school, concludes "the achievement of skill in a foreign language is primarily a function of the amount of time spent studying that language ...". Thus those children who started French in the primary school tended to outperform those who did not start until the secondary school.

The studies mentioned in this section indicate the complexity as well as the importance of the age issue.

#### **2.4.2 Cognitive Variables**

In this section the focus is on aptitude and cognitive/learner styles.

Studies examining the effects of cognitive variables have assigned a prominent role to language learning **aptitude**. It is, however, as Ellis (1986:112) mentions, not easy to define aptitude. Traditionally Carroll and Sapon's (1959) Modern Language Aptitude Test and Pimsleur's (1966) Language Aptitude Battery have been used to provide a measure of aptitude. These tests measure skills such as phonemic coding ability, grammatical sensitivity, associative memory and inductive language learning ability (i.e. the four-factor model) (cf. Skehan, 1991:277-280). According to Stern

(1983:369) the view of language aptitude, as reflected in these tests, is that aptitude is not a single entity, but a "composite of different characteristics" which come into play in second language learning. This view harmonizes with the theory that proficiency is a composite term. The concept of proficiency is discussed in more detail in section 2.6. Language aptitude then consists of several constituents which learners possess to varying degrees.

Several studies (e.g. Carroll, 1973; Green, 1975; Petersen & Al-Haik, 1976) have aimed at identifying the components of language aptitude and have assumed that these components aggregate in cumulative fashion to influence language learning success. In contrast, Skehan (1986:81-94) investigated whether success can be achieved by different routes, and by using the technique of cluster analysis (cf. Everitt, 1978), was able to find evidence for the existence of different *profiles* of language aptitude. Skehan identified analytic language learners (i.e. those learners who achieve success by considering language learning to be a pattern-making problem, with rules and analysis being important) and memory-oriented learners (i.e. those learners who see language as an "accumulation of chunks", where these chunks provide communicative potential directly). According to Skehan (1991:279) it is not only necessary to consider the importance of individual differences, but also essential to examine whether "learner types" exist.

The effects of aptitude on language learning have been measured in terms of the proficiency levels achieved by different classroom learners. Researchers such as Gardner and Lambert (1972) and Smythe *et al.* (1972) have replicated the finding of Carroll (1966:12-42) that language aptitude is important in predicting the success with which individuals, mostly adolescents and adults, may master a second language in a formal learning setting. Gardner (1980:255-270) reports a median correlation of  $r=0,41$  between the Modern Language Aptitude Test scores of English speaking Canadian school children and their grade levels in French. Therefore, approximately 16% of the total variance in the grade levels could be accounted for by aptitude. Gardner claims that this constitutes a strong relationship between aptitude and proficiency.

Although the results of studies such as Gardner's can be used to support claims about the importance of aptitude as a factor in SLA, many doubts remain. The main problem is one of definition. According to Stern (1983:373) it is important to note that language aptitude tests like the MLAT only probe the cognitive, academic, or

analytical aspects of language learning and do not capture the intuitive and non-analytical aspects nor the communicative and social features of language learning which are characteristic of language proficiency and which also play a part in second language learning.

Another cognitive variable, namely **learner** or **cognitive style**, has also been postulated to affect second language acquisition. Witkin et al. (1971:3) have defined cognitive style as a "characteristic self-consistent mode of functioning which individuals show in their perceptual and intellectual activities". Several cognitive style features which may have bearing on second language learning have been identified. However, only a few of the possible number of cognitive styles have received the attention of second language researchers in recent years.

One such characteristic is *field independence/dependence*. This variable is discussed in detail in chapter 3. Another cognitive style variable, *tolerance of ambiguity*, has been defined by Chapelle and Roberts (1986:30) as a person's ability to function rationally and calmly in a situation in which interpretation of all stimuli is not clear. According to Budner (1962:29-50) people who have little or no ambiguity tolerance (AT) perceive ambiguous situations as sources of psychological discomfort or threat. Frenkel-Brunswik (1949:108-143) states that AT students tend to jump to conclusions rather than take time to consider all of the essential elements of an unclear situation.

A few research findings on tolerance of ambiguity are available in second language learning. Naiman et al. (1978:259-260) found that tolerance of ambiguity was one of only two significant factors in predicting the success of their high school learners of French in Toronto. It was found that ambiguity tolerance was positively related to L2 success, as measured by an imitation task and a listening task. Chapelle and Roberts (1986:37) found a positive correlation ( $r=0,23$ ,  $p < 0,05$ ) between ambiguity tolerance and ESL proficiency as measured by the TOEFL test. Thus, the limited amount of research that has been done suggests, though not strongly so, that when a valid measure of AT is used and there is a large variance within the group tested, the relationship between AT and L2 proficiency is positive. Other cognitive styles, such as broad and narrow categorizing and proneness to interference, have not been demonstrated to affect second language proficiency (Naiman et al., 1978:250-260).

### 2.4.3 Affective Variables

In this section the focus is on attitude, motivation and personality types/traits.

The examination of the effect of **attitude** and **motivation** has constituted an extensive research effort (e.g. Gardner & Lambert, 1972; Gardner & Smythe, 1975; Smythe et al., 1972). These studies were conducted in the context of traditional second language programmes where students study the language as part of their standard school curriculum. In general these studies are in agreement showing that measures of achievement in the second language are substantially related to measures of attitudes and motivation. According to Gardner et al. (1977:243-261) the motivational and attitudinal characteristics relevant to success in second language learning refer to group specific attitudes, for example, attitudes toward French speaking people, motivational indices including the desire to learn French and integrative orientation, and generalized attitudes, such as interest in foreign languages, lack of ethnocentrism and need achievement.

Oller et al. (1977b:1-27), Oller and Perkins (1978:85-97) and Chihara and Oller (1978:55-68) conducted several large-scale studies of the relationship between attitudes and language success. They looked at the relationship between Chinese, Japanese and Mexican students' achievement in English and their attitudes toward self, the native language group, the target language group, their reasons for learning English and their reasons for travelling to the United States. Each of the three studies yielded slightly differing conclusions, but for the most part, positive attitudes toward self, the native language group and the target language group enhanced proficiency.

Brown (1987:114) states that motivation is commonly thought of as an inner drive, impulse, emotion, or desire that moves one to a particular action. The work of Robert Gardner has been of considerable importance in the field of motivation both for his findings and the methodological standards he has set. Gardner (1979:193-220) proposed that motivation is strongly influenced by two orientations to language learning: **instrumental** motivation refers to motivation to acquire a language as a means for attaining instrumental goals (e.g. furthering a career, reading technical material, translation, etc.), and **integrative** motivation is employed when a learner wishes to integrate himself within the culture of the second language group, to identify himself with and become a part of that society. Many of Lambert's studies

(cf. Lambert, 1972) found that integrative motivation generally accompanied higher scores on proficiency tests. However, Lukmani (1972:261-274) demonstrated that among Marathi-speaking Indian students learning English in India, those with higher instrumental motivation scored higher in tests of English proficiency. These findings seem to suggest that the two types of motivation are not necessarily mutually exclusive. Brown (1987:116) states that second language learning is rarely motivated by attitudes which are exclusively instrumental, or exclusively integrative. Most situations involve a mixture of each type of motivation.

Gardner's work has clarified considerably the nature of motivational orientation and appropriate measurement and statistical techniques (cf. Gardner, 1980). It has, however, not gone without criticism. Oller (1981:14-27), for example, attacked Gardner's methods of measuring motivation. The ensuing debate usefully clarified many measurement concepts, and Gardner (1980:255-270) argued that some of the criticism (cf. Oller et al., 1977a; 1977b; Chihara & Oller, 1978) could be explained because unvalidated and single-item measures were used by his critics when they should not have been. The research on motivation can be summed up by saying that considerable progress has been made, but that great scope for research remains.

In general psychology, **personality** has been explored in terms of a number of personal types/traits, which in aggregate are said to constitute the personality of an individual. In chapter 5 various personality types/traits are discussed in detail and these traits are also related to ESL proficiency.

Depending on the language learning context and the particular predictor variables under investigation, these studies report that specific affective and cognitive variables can account for some of the variance which characterizes levels of second language learning. Evidence for the positive effect of both cognitive and affective factors in second language learning suggests that each makes a unique, if not specialized, contribution to learning.

## **2.5 Learner Variables to be Studied**

In the previous sections a variety of variables, which can have an influence on proficiency, were identified and discussed. As mentioned in chapter 1 the focus of this study is on the following learner variables: field independence/dependence, language learning strategies and personality types/traits. These variables were

chosen because of their importance and relevance for acquisition research (cf. Skehan, 1991:276-277). In this study they function as independent (predictor) variables (cf. section 6.3).

In the next section a brief discussion of the concept of proficiency is given, because ESL proficiency functions as the dependent (criterion) variable in this study.

## 2.6 The Concept of Proficiency

The definition and assessment of proficiency have presented researchers as well as teachers with a number of problems. Stern (1983:341) mentions that variations in second language learning outcome have been conceptualized in a variety of ways ranging from conceptual schemes of proficiency through impressionistic ratings of proficiency and descriptions of different mastery levels to performance on tests.

Stern (1983:341) states that:

Proficiency can be looked at as a **goal** and thus be defined in terms of objectives or standards. These can then serve as criteria by which to assess proficiency as an empirical **fact**, that is the actual performance of given individual learners or groups of learners.

It is, therefore, essential to note that the conceptualization and description of proficiency is an important step in the study of second language learning.

According to Stern (1983:346) proficiency in the first or second language can be summarized as follows:

- \* the intuitive mastery of the **forms** of the language,
- \* the intuitive mastery of the linguistic, cognitive, affective and sociocultural **meanings**, expressed by the language forms,
- \* the capacity to use the language with maximum attention to **communication** and minimum attention to form, and
- \* the **creativity** of language use.

In the following section some of the approaches used to conceptualize and describe second language proficiency are considered.

## **2.6.1 Approaches to Second Language Proficiency**

A number of approaches to the phenomenon of language proficiency have characterized the past decade or two. In this section the focus is on theoretical conceptions, rating scales and standardized tests.

### **2.6.1.1 Theoretical Conceptions**

Proficiency has often been defined as linguistic content, therefore, terms such as phonology, vocabulary, grammar and form have predominated. However, definitions of proficiency have changed in recent years and now include semantic, discourse and sociolinguistic features (e.g. Canale, 1983; Bachman & Palmer, 1985; Bachman, 1990). According to Richards (1978:94-116) proficiency comprises grammatical well-formedness as well as speech act rules, language functions and language varieties. Many researchers (e.g. Morrow, 1977; Canale & Swain, 1980) suggest that the emphasis on communication does not mean that the grammatical component of proficiency can be ignored. Morrow (1977:1) states that: "There should not be a polarisation between a concentration on form and a concentration on meaning. Without meaning, form is valueless; but there can be no meaning without form".

Many researchers (e.g. Cummins, 1979; 1980; Canale & Swain, 1980; Canale, 1983; Bachman & Palmer, 1985; Bachman, 1990) have tried to define proficiency in terms of the components of proficiency. Baker (1989:29-40) states that the psychometric approach, to defining language proficiency, was based upon the identification of a number of independent dimensions of language proficiency and the construction of a battery of tests to measure each parameter separately. The discrete-point test format was used for most of the tests. An important tool in the validation of the tests was the correlation coefficient; a low coefficient between tests purporting to measure different things was evidence that they did, in fact, measure different aspects of proficiency. However, high correlations were found between a number of discrete-point tests of grammar and vocabulary and integrative tests like dictation which were much less specific in their targets. Frequently, the correlations between discrete-point and integrative tests were higher than between discrete-point tests which were supposed to measure the same thing. Oller (1979) interpreted these results as an indication of the fundamental inadequacy of the psychometric analysis of language proficiency and the tests used to measure it.

Oller (1976; 1979), therefore, challenged this view by hypothesizing that language proficiency is a unitary trait, i.e. it cannot be divided into distinct components. Briefly what Oller said was that language proficiency was indivisible, that tests only differed in their effectiveness at measuring this one factor and that the tests used by the psychometrists could be replaced by one test which would directly tap the single indivisible faculty of language proficiency. Oller called these tests "pragmatic"; they included cloze tests and dictation. Since making the initial claim, however, Oller (1983a:352) himself has rejected the unitary factor hypothesis, stating that "the strongest form of the unitary trait hypothesis was wrong".

This debate highlighted the complex nature of language proficiency. Today most researchers (e.g. Canale, 1983; Bachman, 1990) prefer to define proficiency in terms of various components.

Cummins (1980:176) has introduced a twofold division between a more academic and a more communicative component. The first language ability he identifies is CALP (cognitive/academic language ability); this dimension of language proficiency is related to overall cognitive and academic skills. To complement this, Cummins identifies a second, independent dimension of language proficiency. This factor he calls BICS (basic interpersonal skills); these are the skills required for oral fluency and also include sociolinguistic aspects of competence. Larsen-Freeman and Long (1991:39) state that: "Cummins' inclusion of sociolinguistic competence reminds us that it is commonplace these days to speak of students' developing communicative competence rather than mere linguistic proficiency".

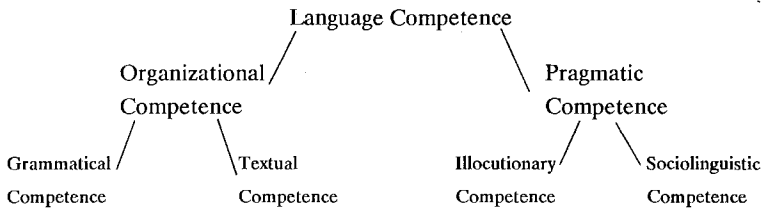
Originally Canale and Swain (1980:1-47) suggested that there were three components to communicative competence: grammatical competence (i.e. the knowledge and skill required to understand and express the literal meaning of utterances), sociolinguistic competence (i.e. the appropriateness of both meaning and form; this includes rules of address, questions of politeness, selection and formulation of topic, rules of discourse, etc.) and strategic competence (i.e. having a repertoire of communication strategies to invoke to compensate for breakdowns in communication). However, in a revision of his original analysis, Canale (1983:9-10) included a fourth component, namely discourse competence (i.e. concerned with cohesion and coherence in the structure of texts).

Bachman (1990:81-108) proposes a very comprehensive framework for describing communicative language ability (CLA) as both knowledge of language and the capacity for implementing that knowledge in communicative language use. This is also how Candlin (1986:40) describes communicative competence:

The ability to create meanings by exploring the potential inherent in any language for continual modification in response to change, negotiating the value of convention rather than conforming to established principle. In sum, ... a coming together of organized knowledge structures with a set of procedures for adapting this knowledge to solve new problems of communication that do not have ready-made and tailored solutions.

According to Bachman (1990:84) CLA consists of language competence, strategic competence and psychophysiological mechanisms. Figure 1 shows the different components of Bachman's language competence.

**Figure 1:** Components of Language Competence



(Bachman, 1990:87).

Bachman (1990:86) classifies **language competence** into two types: organizational competence and pragmatic competence. Bachman (1990:87) states that: "Organizational competence comprises those abilities involved in controlling the formal structure of language for producing or recognizing grammatically correct sentences, comprehending their propositional context, and ordering them to form texts". Two types of abilities are distinguished: grammatical and textual. Grammatical competence includes those competencies involved in language usage, as described by Widdowson (1978:1-21). These consist of a number of relatively independent competencies such as the knowledge of vocabulary, morphology, syntax and phonology/graphology. Textual competence includes the knowledge of the

conventions for joining utterances together to form a text, which is essentially a unit of language - spoken or written - consisting of two or more utterances or sentences that are structured according to rules of cohesion and rhetorical organization.

According to Bachman (1990:89-90) pragmatics is concerned with the "relationships between utterances and the acts or functions that speakers (or writers) intend to perform through these utterances, which can be called the illocutionary force of the utterances, and the characteristics of the context of language use that determine the appropriateness of utterances". Pragmatic competence, therefore, includes illocutionary competence, (the knowledge of the pragmatic conventions for performing acceptable language functions) and sociolinguistic competence (knowledge of the sociolinguistic conventions for performing language functions appropriately in a given context).

Bachman (1990:107) states that **strategic competence** is seen as "the capacity that relates language competence, or knowledge of language, to the language user's knowledge structures and the features of the context in which communication takes place". Strategic competence, therefore, "performs assessment, planning, and execution functions in determining the most effective means of achieving a communicative goal". Bachman (1990:108) also states that **psychophysiological mechanisms** characterize "the channel (auditory, visual) and mode (receptive, productive) in which competence is implemented".

#### **2.6.1.2 Proficiency Levels as determined by Rating Scales and Standardized Tests**

According to Stern (1983:353) rating scales are divided in terms of communication skills into listening, speaking, reading and writing. Rating scales, therefore, fulfil certain functions. Firstly, they can indicate standards expected for given purposes. For example, standards of reading or writing can be set for the diplomatic service. The S-3 level, distinguished by the FSI (Foreign Service Institute), is summarized as "the ability to participate effectively in most formal and informal conversations on practical, social and professional topics". Rating scales can also be used as descriptions or analyses of levels reached by second language learners.

Language tests have often been criticized because they reflect what learners at school or university are expected to be able to do. Stern (1983:353) states that "it is arguable that proficiency is more than that and that language tests only partially

cover what constitutes proficiency". However, attempts have been made to develop communicative tests (cf. Morrow, 1979; Carroll, 1980). A variety of standardized tests, for example, TOEFL, IEA English tests and the MLA cooperative tests, are also available for assessing second language proficiency. It, therefore, seems to be necessary to establish the validity and reliability of a test to assess certain aspects or components of proficiency. This also indicates the importance of conceptualizing or defining the concept of proficiency at the start of a study. In chapter 6 the concept of proficiency, as it is to be used in this study, is defined.

## **2.7 Conclusion**

In this chapter a number of both relevant and salient personal and general factors in the learning of a second language have been considered. It should by now be apparent that the variables discussed in this section represent a quagmire of factors which must be channeled into an understanding of the SLA process. The awareness of learner characteristics and individual differences among language learners can sensitize teachers to possible variations in learner reactions to teaching and to differences in language learning strategies. Not all learners are alike. Brown (1987:95) mentions that learners can't be "pigeon-holed" into either a cognitive or affective type. If it were possible to discover some overriding and all-pervading variable that could classify learners neatly into categories of "successful" and "unsuccessful", then it would be possible to typify language learners. However, all the characteristics of the "good language learner" have not yet been identified. Until that definition is found, teachers need to recognize and understand a multiplicity of variables active in the second language learning process. Brown (1987:95) mentions that teachers should make "appropriate judgements about individual learners, meeting them where they are and providing them with the best possible opportunities for learning".

With regard to the concept of proficiency it would seem reasonable to assume that proficiency in a language is complex and multifaceted, and that it can best be understood by identifying two or more components rather than to expect it to be expressed as a single concept. It also seems to be essential to conceptualize the concept "proficiency" if it is to be used in a study as either a predictor variable or as a criterion measure.

In chapter 3 the cognitive style variable, field independence/dependence, is discussed in more detail.

## CHAPTER 3

### FIELD INDEPENDENCE/DEPENDENCE AND ESL PROFICIENCY

#### 3.1 Introduction

While most humans acquire a basic competence in their first language, second language learners display great variability in the level of proficiency they attain in the target language. During the last twenty years a significant amount of attention has been focused on the individual learner as a central element in the complex process of learning another language. As pointed out in section 2.4.2, a learner variable which has received considerable attention from researchers is the cognitive style construct known as field independence/dependence (FI/D). In this chapter the focus is on the FI/D construct and its relationship with second language acquisition (SLA). Field independence/dependence is described briefly and various studies which have attempted to provide evidence for a relationship between FI/D and SLA are discussed critically. The aim of this chapter is to reach a conclusion regarding the importance, if any, of field independence/dependence for second language acquisition.

#### 3.2 Cognitive Style

Cognitive style is a psychological term used to describe individual differences in the way one habitually tends to perceive, organize, analyze, or recall information and experience (Hansen & Stansfield, 1982:263; McLaughlin, 1985:165). According to Ellis (1986:114) various dimensions of cognitive style have been identified and presented as dichotomies. The dichotomy which has received the greatest attention where SLA is concerned is that of field independence/dependence. In the following two sections the FI/D cognitive styles are explained briefly.

##### 3.2.1 The Field Independent Cognitive Style

Brown (1987:85) describes **field independence** as the ability to perceive a particular, relevant item or factor in a "field" of distracting items. According to Brown (1987:85) the "field" may be perceptual or it may be more abstract in referring to a set of thoughts, ideas or feelings from which your task is to perceive specific relevant subsets".

The perceptual task that the student faces (e.g. in the Gottschaldt Figures Test) is to break up an organized visual field and keep a part of it separate from that field. The field independent person must, therefore, overcome the organizational context, "disembedding" discrete, relevant information from the "field". Tasks involving senses other than sight also show similar field independent or dependent responses. De Fazio (1973:351-356) mentions that the student who has difficulty in performing the perceptual task of identifying simple figures, also has difficulty in solving problems which require isolating an essential element from the context in which it is presented and using it in a different context. Witkin et al. (1977a:9) state that FI students are able to locate and abstract the element from its context, to restructure a given organizational field, or even impose structure on a field with little inherent structure/organization.

According to the interpretation of Hansen and Stansfield (1982:263) field independence and field dependence signify contrasting tendencies to rely, respectively, on either internal or external frames of reference in processing information. Witkin et al. (1979:1127-1145) state that the FI person has developed a definite boundary between the outer world and the inner self. With regard to personality correlates Witkin and Goodenough (1977:672) and Hansen (1984:312) state that FI persons tend to be independent, competitive, aloof, individualistic, distant in relation with others and self-reliant. Witkin et al. (1977a:12) suggest that this self-reliance leads to a more autonomous and impersonal orientation among field independent people. Witkin and Goodenough (1977:681-682) suggest that the characteristics associated with field independence may result in reduced effectiveness in the interpersonal arena.

An FI person consequently approaches problem solving situations analytically, focusing attention on individual parts of the whole, giving little thought or attention to the global aspect (Witkin et al., 1977a:7; Hansen & Stansfield, 1982:264; McLaughlin, 1985:166). With regard to educational-vocational choices relatively FI persons favour impersonal and analytical domains. Thus, in the academic setting, FI graduate students have been found likely to specialize in such fields as mathematics, the sciences, engineering, mathematics-and-science teaching, art and architecture (Witkin & Goodenough, 1977:676-677).

### **3.2.2 The Field Dependent Cognitive Style**

Brown (1987:85) describes **field dependence** as the tendency to be "dependent" on the total field such that the parts embedded within the field are not easily perceived, though the total field is perceived more clearly as a unified whole. A field dependent person perceives all parts of the organized field as a total experience and is dominated by the overall field. According to Naiman et al. (1978:30) field dependent subjects are very much tied to the context in which they first meet the element.

The field dependent person takes an integrative view to information processing. He/she is considered to have greater skill in interpersonal relations and social behaviours which leads to competence in understanding and dealing with others (Hansen & Stansfield, 1981:350; McLaughlin, 1985:166). With regard to personality correlates Witkin and Goodenough (1977:672) conclude that FD persons are seen as outgoing by other people, apt to display emotional openness, sensitive to social cues, have wide acquaintanceship and they tend to derive their self-identity from the people around them. A FD person approaches problem solving situations globally and as a result tends to get lost in the totality of the stimuli (Chapelle & Roberts, 1986:28). With regard to educational-vocational choices relatively FD persons favour interpersonal and non-analytical domains. Thus, in the academic setting, FD students have been found likely to choose as their specialities such fields as elementary school teaching, social work and law (Witkin & Goodenough, 1977:676-677).

In the following section variables which can influence a person's field independence/dependence are discussed.

### **3.3 Variables influencing the FI/D Cognitive Styles**

The literature on field independence/dependence (e.g. Witkin et al., 1977a; 1977b; Witkin & Goodenough, 1977; Hansen & Stansfield, 1981, 1982; Hansen, 1984; Chapelle & Roberts, 1986; Chapelle, 1988) reveals that persons tend to be dominant in one mode of field independence/dependence or the other, that field independence/dependence is a relatively stable trait, and that field independence increases as a child matures to adulthood. It, therefore, seems as if FI/D can be influenced by a number of variables such as age, sex and culture.

Chapelle and Roberts (1986:29) state that in western societies children become increasingly FI until about the age of 15. Field independence then stabilizes until approximately age 30 when it gradually begins to decrease. Naiman *et al.* (1978:49) found that the proficiency of students in grades 8 and 10 was not influenced by cognitive style, whereas the students in grade 12 who were more FI scored higher on the various tasks. A possible explanation could be that the effects of cognitive style are age-related, in other words, that field independence may be important for young adults, but that it doesn't affect young children. However, more research is needed in order to confirm such an interpretation.

It has been found in western societies that men tend to be slightly more FI than women (Witkin *et al.*, 1977a:7). Hansen (1984:317) conducted a study using six South Pacific cultures. She found that in all of the South Pacific groups the males were significantly more FI than the females. For example, the mean GEFT (Group Embedded Figures Test) scores for Samoan men and women were 10,92 and 6,47, respectively. The level of statistical significance of the sex difference as determined by a t-test was 4,45,  $p < 0,01$ .

Cross-culturally the extent of the development of a field independent style as children mature is a factor of the type of society and home in which the child is reared (Hansen, 1984:313). According to various researchers (Berry, 1976; Witkin & Goodenough, 1981; Hansen, 1984; Brown, 1987) agrarian or authoritarian societies, which are usually highly socialized and have strict rearing norms, tend to produce more FD persons. Democratic, industrialized societies in which technology plays an important role and individual freedom is stressed, advocating more relaxed rearing practices, tend to produce more FI persons.

The question that now arises is: How does all this relate to Second Language Acquisition? In the following section various studies which have attempted to provide evidence for a relationship between field independence/dependence and second language acquisition are discussed.

### **3.4 The Role of FI/D in SLA**

Ellis (1989:249) states that field dependent learners are strongly influenced by context; they prefer an integrative approach. Field independent learners, on the other hand, tend to be more analytical. A number of studies (e.g. Tucker *et al.*,

1976; Hansen & Stansfield, 1981; Day, 1984; Chappelle & Roberts, 1986) have been carried out to test the hypothesis that field independent learners have an advantage in formal language learning and do better in language tests that encourage a focus on form, while field dependent learners have an advantage in informal language learning and do better in tests of oral communication.

Several studies researched FI/D as a cognitive disembedding ability which might affect the second language performance of secondary school students studying French as a second language in Canada. The results of the study conducted by Naiman et al. (1978:52-53) indicated that field independence correlated significantly with imitation ( $r=0,24$ ,  $p<0,05$ ) and listening comprehension tasks ( $r=0,31$ ,  $p<0,01$ ). Naiman et al. (1978:54-55) also found that the proficiency of students in grades 8 and 10 was not influenced by cognitive style, whereas the students in grade 12 who were FI scored higher on the proficiency tests. Tucker et al. (1976: 222-223) did not find this same relationship for younger students on listening comprehension, reading comprehension or oral production tasks. However, Tucker et al. (1976:222) did find a correlation between field independence and an achievement test of general language skills ( $r=0,45$ ,  $p<0,05$ ). Bialystok and Fröhlich (1978:333), in their work with English Canadian high school students learning French, did not find any support for claiming that field independence was a factor for predicting success on the second language reading, listening and writing tasks which they had selected. They found that field independence accounted for the following: 1,7% of the variance on the reading task, 1% of the variance on the writing task and 0,1% of the variance on the listening task.

Hansen and Stansfield (1981:358) investigated the relationship between the FI/D of Anglo students and various measures of Spanish proficiency (e.g. linguistic, communicative and integrative). Their results indicated a positive relationship, although modest, between FI and the acquisition of linguistic ( $r=0,28$ ,  $p<0,001$ ) and integrative competence, as measured by a cloze test, ( $r=0,43$ ,  $p<0,001$ ). A cloze test is a reading passage (150 to 300 words) in which every *n*th word has been deleted; the testee is required to supply words to fit into those blanks. The ratio of deletion usually ranges from every fifth word to every eighth word. Scoring of cloze tests can vary from requiring the testee to supply the exact word that was deleted, to supplying an appropriate word which "makes sense" in the context of the passage. Oller (1976:141-166) has claimed that cloze test results are good measures of overall

proficiency. The correlation between FI and communicative competence ( $r=0,21$ ,  $p<0,001$ ), while not as strong as the correlations between FI and linguistic and integrative competence, was also positive.

In a study using ESL students, Day (1984:83-84) found a significant correlation between FI and performance on a cloze test ( $r=0,26$ ,  $p<0,05$ ) but not between FI and performance on a test of communicative competence ( $r=0,10$ ,  $p<0,05$ ). Hansen (1984:319), examining primarily ESL students, found a significant positive correlation between FI and performance on a cloze test ( $r=0,42$ ,  $p<0,001$ ). Chapelle and Roberts (1986:37) found correlations of  $r=0,55$  and  $r=0,75$ ,  $p<0,001$  between FI and TOEFL scores administered at the beginning and end of the semester, respectively. These correlations are significantly higher than those found by, for example, Hansen and Stansfield (1981:358), indicating a stronger relationship between field independence and proficiency.

The research studies mentioned in this section offer mixed and also somewhat inconsistent conclusions regarding the role and influence that field independence/dependence has upon second language acquisition. The mixed results may stem from limitations inherent in the various studies. These limitations are discussed in the following section. It is also obvious that there is very little research which indicates that FD learners actually perform better in oral communication tests or tests which focus on communicative competence. However, it seems as if most research supports the hypothesis that FI/D is related to second language acquisition as measured by a number of different proficiency tests.

### **3.5 A Critique of the Empirical Studies**

The mixed and inconsistent results found by the various studies mentioned in the previous section may stem from such factors as the use of different instruments for testing FI/D, the choice of different second language tasks, the selection of learners with varying ages and second language proficiency levels, and in some instances, small sample groups.

The study conducted by Naiman et al. (1978) has certain limitations in its methodology. Reliability and validity measures for the tests used in their study are not given. According to Brown (1988:50) it is essential to mention the reliability and validity of tests used in the studies, because they indicate the appropriateness of the

tests for testing a particular aspect it is supposed to be testing. Naiman et al. (1978:66) mention that the IEA test of French achievement was developed as an international test and that some of the vocabulary items included in the test may have been unfamiliar to the students in the Ontario school system. They also mention that the imitation test was designed for use with young children in an "immersion" programme, while their subjects were grade 8, 10 and 12 secondary school students studying French as a second language in Canada. The weaknesses identified in the construct validity of the criterion measures might indicate why there were so few differences in the nature of the variables that were related to the two aspects of linguistic competence (productive vs receptive competence). According to Bachman (1990:6) John Oller's work (1976; 1979; 1983b), as well as the research it stimulated, firmly established construct validation as a central concern of language testing research.

The process of test validation is very important and is addressed to specific test uses and specific groups of test takers. Within these groups there may be subgroups that differ in ways other than the language ability of interest (e.g. reading comprehension). Bachman (1990:271) states that these differences may affect the test performance of the individuals taking the test, and hence the validity of inferences that can be made on the basis of the test scores. Thus, even though the test scores may appear to provide a valid indication of ability for the group of interest (i.e. subjects being investigated), there may be systematic differences in test performance that are the result of differences in individual characteristics, other than the ability being tested, of test takers. When this happens, test bias is usually an aspect to consider.

Hansen and Stansfield (1981:349-367) and Stansfield and Hansen (1983:29-38) studied the relationship between field independence and language achievement among college students studying Spanish as a second language. They analysed correlations between scores on the GEFT, scholastic ability and several different indicators of language achievement (e.g. written exam grade average, oral skill evaluation, final course grade, cloze test, etc.). After taking into account differences in scholastic aptitude in mathematics, they found no significant correlations between GEFT scores and final course grades and grades for oral and written Spanish. However, they did find a significant correlation between GEFT and cloze test scores ( $r = 0,43$ ,  $p < 0,001$ ). Their results seem to indicate that field independent individuals

are better able to complete the blanks in cloze tests than are field dependent persons. Hansen (1984:311-324) examined the relationship between field dependence and performance on tests of language proficiency among members of six Pacific island cultures. Her results generally support those of Stansfield and Hansen (1983), in that she found significant positive correlations between GEFT scores and all her measures of language proficiency (e.g. an English standardized discrete-point test, MTELP, English grade, cloze test, etc.) the highest of which was that between the GEFT and the cloze test ( $r=0,42$ ,  $p<0,001$ ).

The study by Chapelle and Roberts (1986:27-45) found significant correlations between GEFT scores and scores on a wide range of English proficiency tests (e.g. TOEFL, a dictation test, a cloze test and an oral interview). In their study, however, the highest correlations were between the GEFT and multiple-choice tests of structure ( $r=0,60$ ,  $p<0,001$ ), although the correlations between the GEFT and the cloze were nearly as high ( $r=0,55$ ,  $p<0,001$ ).

These studies indicate that field independence influences performance on some language tests. The results seem to support the hypothesis that field independent learners appear to perform better in general on language tests than do their field dependent counterparts. However, as Bachman (1990:276) mentions, "the results are not consistent with regard to the relative effect of field independence on different types of language tests".

Another factor which can be criticized in the studies of both Naiman *et al.* (1978) and Day (1984) is the fact that their sample sizes were very small: 72 and 58 subjects respectively. Butler (1985:61-63) states that small sample sizes can have an adverse effect on test results. It is, therefore, necessary that studies with such small sample sizes should be cross-validated.

Despite the limitations inherent in these studies, it does seem as if field independence/dependence is a learner characteristic which teachers, researchers and syllabus designers have to be aware of for L2 progress. For example, proposals have been made to adapt second language instruction methods and materials to accommodate these learner differences (Birckbichler & Omaggio, 1978:336-344). However, more research is needed, because there are still a number of uncertainties regarding this whole issue.

### 3.6 Conclusion

Is it possible that field independence and field dependence can be equally important for SLA? Palmer (1979:169-180) points out that second language proficiency ultimately involves not only skill in linguistic analyses and restructuring, but also competence in authentic social communication. These two constructs (FI/D) seem to imply two different kinds of language learning. The first kind of learning involves the familiar and traditional classroom language learning where the focus is on activities such as, drills, exercises and tests. The second kind of learning implies natural communication (i.e. that which usually occurs beyond the constraints of the classroom), the kind of communication where the participants are on equal footing and can initiate interactions whenever they want to, that occurs very seldom in the average language classroom because of teacher dominance (Dreyer, 1990:147-148).

If the results of the research studies mentioned in this chapter are taken into consideration it seems as if teachers, lecturers, researchers, etc., would be well advised to be aware of their students FI/D, because this cognitive style construct might influence their ESL proficiency. However, it would be premature to address the question of what aspect of SLA is influenced by cognitive style, because existing research does not conclusively show that it is a major variable where success is concerned. Ellis (1986:116) suggests that, due to the holistic/analytic distinction inherent in FI/D, cognitive style may eventually turn out to be an important variable determining rate of development.

## CHAPTER 4

### LANGUAGE LEARNING STRATEGIES AND ESL PROFICIENCY

#### 4.1 Introduction

The research literature on language learning strategies (LLSs) in Second Language Acquisition (SLA) emerged from a concern for identifying the characteristics of successful language learners. The suggestion that the "good language learner" might be doing something special or different that other learners could learn from was introduced in the work of Rubin (1975) and Stern (1975). These researchers identified strategies reported by students or observed in language learning situations that appeared to contribute to learning. Various research efforts (e.g. Rubin, 1975; Stern, 1975; Naiman *et al.*, 1978; Wenden & Rubin, 1987; O'Malley & Chamot, 1990; Oxford, 1990) demonstrated that students do apply learning strategies while learning a second language. However, teachers and researchers have all observed that some students approach the language learning task in more successful ways than others. The differential success of second language learners suggests a need to examine in detail what strategies "successful" language learners employ. However, a fundamental issue that needs to be considered at the outset is that of the theoretical basis for language learning strategies. In this chapter the focus is on language learning strategies.

The aim of this chapter is to determine:

- \* how LLSs can be described within a cognitive theory of language learning,
- \* how LLSs can be defined and classified (various frameworks/systems for classifying LLSs are mentioned briefly and Oxford's (1990) system receives special attention because of its comprehensive nature),
- \* which factors ultimately influence the choice of LLSs,
- \* the importance of LLSs, and
- \* whether a relationship exists between LLSs and second language (L2) proficiency.

## **4.2 A Theoretical Basis for Language Learning Strategies**

Several issues have become important within the learner strategies research (e.g. the definition and classification of strategies, applications of learner strategies, strategy training, etc.), and their resolution would benefit the way languages are taught. According to Skehan (1991:287) an issue which needs to be considered is that of the theoretical basis for learning strategies. The most relevant work that has been done is that of O'Malley and Chamot (1990), who tried to establish strategy research within the cognitive theory of John Anderson (1985).

### **4.2.1 Cognitive Theory**

A cognitive theory views language learning as a complex skill which involves use of various information-processing techniques to overcome limitations in mental capacity which inhibit the performance of various tasks. Learning takes place when the learner is able to carry out tasks automatically as a result of practice.

According to Ellis (1990:176) cognitive theory seeks to explain three principal aspects of learning:

- \* how knowledge is initially represented,
- \* how the ability to use this knowledge develops, and
- \* how new knowledge is integrated into the learner's existing cognitive system.

#### **4.2.1.1 The Representation of New Knowledge**

According to Weinstein and Mayer (1986:315-327) new knowledge is acquired in two stages. Firstly, the learner pays attention to certain features occurring in the environment and then transfers this information into the short-term memory. Secondly, the learner acquires some or all of these features permanently by transferring the information into long-term memory.

#### **4.2.1.2 Developing the Ability to Use Knowledge**

Information which has been transferred into long-term memory is not initially available for use under all circumstances. According to Ellis (1990:176-177) there are two accounts of how learners achieve control over new information: the first

concerns the distinction between controlled and automatic processing and the second that between declarative and procedural knowledge.

A number of researchers (cf. Posner & Snyder, 1975; Shiffrin & Schneider, 1977) distinguish the mental operations that a person is able to perform easily and automatically from those that can only be performed with great difficulty and fairly slowly. Automatic processing is a learned response that has been built up through the repeated mapping of the same input to the same pattern of activation over a period of time. Once learned, an automatic process occurs rapidly and is difficult to suppress or alter. Controlled processing is under the attentional control of the subject and is, therefore, not a learned response. Since attention is required, only one such sequence can normally be controlled at a time without interference occurring. Controlled processing can, therefore, be regarded as "stepping stones" for automatic processing as the learner moves to more difficult levels (McLaughlin, 1987:135).

According to O'Malley and Chamot (1990:20) declarative knowledge involves all the things "we know about". It consists of such information as the definitions of words, facts, rules and memory of images and sequences of events. Declarative knowledge is maintained in memory through "propositional representations". Propositional representations maintain the meaning of information while ignoring unimportant details. Procedural knowledge is "knowing how". It is represented in memory in terms of "production systems" consisting of a condition (IF) and an action (THEN). Procedural knowledge is acquired gradually and only with extensive opportunities for practice.

Anderson (1985:226-235) identifies three stages in the learning process:

- \* In the **cognitive** stage the learner makes use of conscious activity. The knowledge acquired is declarative in nature and can often be described verbally by the learner.
- \* In the **associative** stage, errors in the original declarative knowledge are detected and corrected and the knowledge is also proceduralized.
- \* In the **autonomous** stage performance becomes more or less totally automatic and errors disappear.

#### **4.2.1.3 Integrating Knowledge**

The third aspect of learning involves the way in which the acquisition of new information leads to a restructuring of the learner's existing knowledge system. As learning takes place, the existing system is modified in order to take account of the new information. Karmiloff-Smith (1986:164-188) describes how the process of restructuring takes place. At first components of a new task are mastered, but no overall organization is composed on the information. Later, however, organization is created as learners attempt to simplify, unify and gain control over the internal representation of their knowledge. In the first stage learners are influenced by input data and are responsive to corrective feedback, while in the second stage they are more strongly influenced by their own mental schemas and under-utilize external feedback. In the third stage the learner is able to balance environmental and mentalistic influences without threatening the stability of the knowledge system.

The next section illustrates how language learning strategies can be accommodated within a cognitive theory of language learning.

#### **4.2.2 Strategies as Cognitive Processes**

Certain questions about learning strategies are raised by Anderson's cognitive theory: How can strategies be described within the context of the theory? How can the strategies be learned by a person who does not make use of them on a specific task where they might in fact facilitate learning? Examples of metacognitive and cognitive strategies are used to illustrate the way in which strategies can be described within the context of the theory.

O'Malley and Chamot (1990:47) state that procedural knowledge is the basic mechanism through which control over cognition is exercised in Anderson's theory. Procedural knowledge, as represented in production systems is used to examine, test and modify the procedural system as well as to extend the system's range of control. Production systems by definition have a goal statement as the condition (IF) preceding an action (THEN), and therefore provide direction in planning future thoughts or behaviour. Planning (a metacognitive strategy) may be influenced by goals or by input features that might be useful for performing a task.

A number of cognitive strategies can also be explained by Anderson's theory: imagery, organization, inferencing, elaboration and transfer. According to Anderson

(1985:63-93), information can be stored in memory by means of images. Anderson's theoretical description of images is concerned primarily with topics such as the ability of the learner to link patterns similar to an original figure, although these patterns may be rotated or segmented, and to identify patterns with and without supporting organization or context.

### **4.2.3 Strategy Acquisition in Cognitive Theory**

Research on learning strategies is based on the assertion that strategies begin as declarative knowledge that can become proceduralized with practice and, like complex cognitive skills, proceed through the cognitive, associative and autonomous stages of learning.

Strategies are complex skills and a learner attempting to apply a new strategy to a demanding task will experience difficulties in controlled processing because he is performing two complex tasks simultaneously. It is, therefore, difficult to teach students to use new strategies with cognitive tasks, because controlled processing requires additional attentional processes (cf. section 4.2.1.2). The learner might compensate and reduce the cognitive load by not using the strategy or by using a more familiar but less efficient strategy.

The learner who sees the task as too familiar or too difficult may not be inclined to use a new strategy, but may rely upon strategies that have already been learned. Thus, one of the problems of strategy training is that learners will avoid new strategies with tasks that are too easy or too difficult.

According to Skehan (1991:287) a further issue which needs some attention is that of the definition and classification of language learning strategies. This issue is discussed in the next two sections.

### **4.3 A Definition of Language Learning Strategies**

Learning strategies have been broadly defined as any set of operations or steps used by a learner that will facilitate the acquisition, storage, retrieval, or use of information (Rigney, 1978:165-205; Dansereau, 1985:209-240). Oxford (1990:8) feels the need to expand these definitions because of the "richness" of learning strategies. According to Oxford (1990:8) learning strategies are "specific actions

taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferrable to new situations".

In the literature, learning strategies have been referred to as "techniques", "tactics", "potentially conscious plans", "consciously employed operations", "learning skills", "basic skills" and "problem solving procedures" (Wenden, 1987a:7). These multiple designations point to the elusive nature of the term. In their discussion of five different views on strategies, Naiman et al. (1975:59) acknowledge that "a consensus on a definition of the term is lacking". Eight years later, Bialystok (1983:100) makes an almost identical statement: "There is little consensus in the literature concerning either the definition or the identification of language learning strategies". Oxford and Crookall (1989:404) state that no matter what they are called, "strategies can make learning more efficient and effective". Research in this respect reveals that learning strategies can influence the degree of proficiency obtained in a second language.

#### **4.4 Classification of Language Learning Strategies**

According to Oxford (1990:17) "classification conflicts are inevitable". There is no complete agreement on exactly what strategies are; how many strategies exist; how they should be demarcated and categorized; and whether it is, or ever will be, possible to create a real, scientifically validated hierarchy of strategies. Oxford (1990:16) states that, "any existing system of strategies is only a proposal to be tested through practical classroom use and through research".

In the next four sections various classification systems are discussed.

##### **4.4.1 Naiman, Fröhlich, Stern and Todesco (1978)**

The classification scheme proposed by Naiman et al. (1978:5-25) contains five broad categories of learning strategies and a number of secondary categories. The primary classification includes: (1) an active task approach, (2) realization of language as a system, (3) realization of language as a means of communication and interaction, (4) management of affective demands and, (5) monitoring of second language performance. An example of one of their secondary categories is: seeking communicative situations with L2 speakers. Naiman et al. (1978:5-25) based their classification scheme on interviews with thirty-four good language learners and an initial strategy scheme suggested earlier by Stern (1975:311-317). For a more

detailed discussion of this classification scheme Naiman et al. (1978:5-25) can be consulted.

#### **4.4.2 Rubin (1981)**

An alternative classification scheme proposed by Rubin (1981:117-131) subsumes learning strategies under two primary groupings and a number of subgroups. Rubin's first primary category, consisting of strategies that directly affect learning, includes clarification/verification, monitoring, memorization, guessing/inductive reasoning, deductive reasoning and practice. The second primary category, consisting of strategies that contribute indirectly to learning, includes creating practice opportunities and using production tricks such as communication strategies. Rubin based her strategies on fairly extensive data collection in varied settings, which included about fifty hours of classroom observation, analysis of self-reports from "a few students" instructed to write down what they did to learn a second language, and analysis of daily journal entries of two students who were directed to report on strategies after having been given strategy examples. For a more detailed discussion of this classification scheme Rubin (1981:117-131) can be consulted.

#### **4.4.3 O'Malley, Chamot, Stewner-Manzanares, Russo, Rocco and Kupper (1985b)**

O'Malley et al. (1985b:557-584) studied the use of some twenty-four strategies by learners of English as a second language in the United States. They divided their strategies into three main categories (depending on the level or type of processing involved), namely metacognitive, cognitive and socioaffective. The *metacognitive strategies* include: advance organizers, directed attention, selective attention, self-management, functional planning, self-monitoring, delayed production and self-evaluation. The *cognitive strategies* include: repetition, resourcing, translation, grouping, note taking, deduction, recombination, imagery, auditory representation, keyword, contextualization, elaboration, transfer and inferencing. *Socioaffective strategies* include: cooperation and question for clarification. The degree of overlap between this classification system and that of Oxford (1990) (cf. section 4.4.4) is considerable. Oxford's cognitive and memory strategies are easily located within the O'Malley et al. (1985b) cognitive category, just as her social and affective strategies seem to be an extension of the O'Malley et al. (1985b) social category. In this view, the major addition in the Oxford classification system is the compensation category (cf. section 4.4.4.1.3).

#### 4.3.4 Oxford (1990)

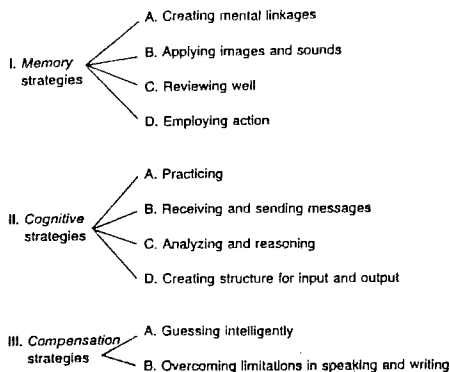
Oxford (1990:239) acknowledges that her classification system owes a great deal to the work of various researchers (e.g. Rubin, 1975; Naiman *et al.*, 1978; Dansereau, 1978; Bialystok & Fröhlich, 1978; Bialystok, 1981; O'Malley *et al.*, 1985b). In Oxford's classification system strategies are divided into two major classes: direct and indirect. These two classes are subdivided into a total of six groups (memory, cognitive, and compensation under the direct class; metacognitive, affective and social under the indirect class). Oxford (1990:14) mentions that the direct strategies and indirect strategies support each other, and that each strategy group is capable of connecting with and assisting every other strategy group.

In the following sub-sections direct and indirect strategies are discussed separately.

##### 4.4.4.1 Direct Strategies

According to Oxford (1990:37) **direct strategies** are language learning strategies that directly involve the target language. The three groups of direct strategies do the mental processing of language in different ways and also for different purposes. *Memory strategies*, such as grouping or using imagery, help students store new information in memory and retrieve it later. *Cognitive strategies*, such as taking notes or summarizing, enable learners to understand and produce new language by many different means. *Compensation strategies*, like guessing or using synonyms, allow learners to use the language despite their often large gaps in knowledge. Figure 2 gives a schematic representation of the direct strategies.

**Figure 2: Diagram of the Direct Strategies**



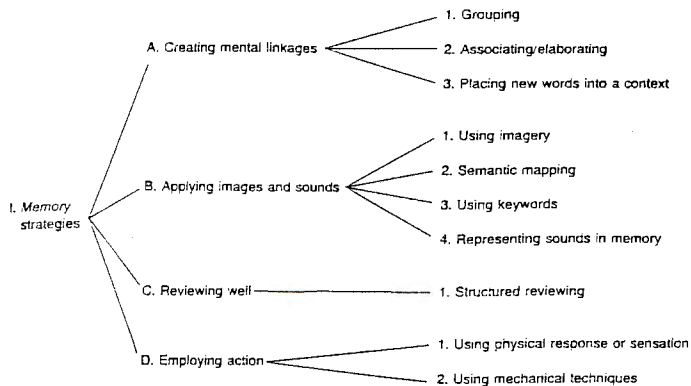
(Oxford, 1990:38).

#### **4.4.4.1.1 Memory Strategies**

According to Oxford (1990:39) memory strategies (mnemonics) reflect very simple principles, such as arranging things in order, making associations and reviewing. However, the precise physical workings of memory are much more complex and are not as easily understood as these principles. According to Begley et al. (1986:48) memory is still the "black hole in the center of neurobiology".

Figure 3 gives a schematic representation of the memory strategies.

**Figure 3: Diagram of the Memory Strategies**



(Oxford, 1990:39).

Oxford (1990:40-43) defines memory strategies in the following way:

### **A. Creating Mental Linkages**

#### **1. Grouping**

Classifying or reclassifying language material into meaningful units, either mentally or in writing, to make the material easier to remember by reducing the number of discrete elements.

#### **2. Associating/Elaborating**

Relating new language information to concepts already in memory, or relating one piece of information to another, to create associations in memory.

#### **3. Placing New Words into a Context**

Placing a word or phrase in a meaningful sentence, conversation, or story in order to remember it.

## **B Applying Images and Sounds**

### 1. *Using Imagery*

Relating new language information to concepts in memory by means of meaningful visual imagery, either in the mind or in an actual drawing.

### 2. *Semantic Mapping*

Making an arrangement of words into a picture, which has a key concept at the centre or at the top, and related words and concepts linked with the key concept by means of lines or arrows.

### 3. *Using Keywords*

Remembering a new word by using auditory and visual links.

### 4. *Representing Sounds in Memory*

Remembering new language information according to its sound.

## **C Reviewing Well**

### 1. *Structured Reviewing*

Reviewing in carefully spaced intervals, at first close together and then more widely spaced apart.

## **D Employing Action**

### 1. *Using Physical Response or Sensation*

Physically acting out a new expression (e.g. going to the door), or meaningfully relating a new expression to a physical feeling or sensation (e.g. warmth).

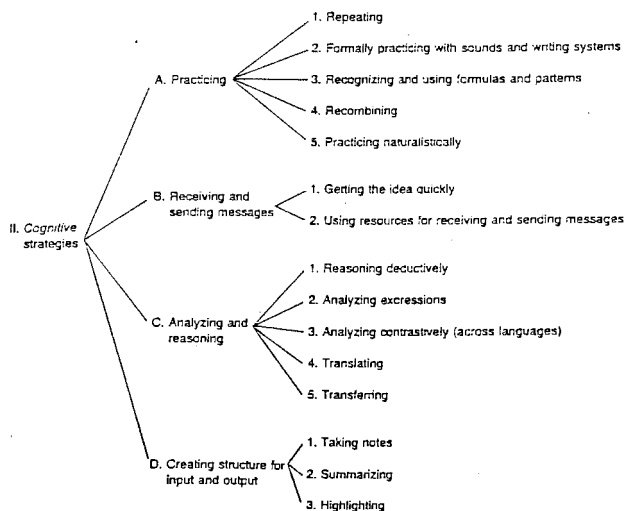
### 2. *Using Mechanical Techniques*

Using creative but tangible techniques, especially involving moving or changing something which is concrete, in order to remember new target language information.

#### 4.4.4.1.2 Cognitive Strategies

There are a wide variety of cognitive strategies, ranging from repeating to analyzing expressions to summarizing. However, these strategies have a common function: manipulation or transformation of the target language by the learner. Cognitive strategies seem to be the most popular strategies with language learners. O'Malley et al. (1985a:21-46) found that high school ESL students and university foreign language students used considerably more cognitive strategies than metacognitive strategies. Figure 4 gives a schematic representation of the cognitive strategies.

Figure 4: Diagram of the Cognitive Strategies



(Oxford, 1990:44).

Oxford (1990:45-47) defines cognitive strategies in the following way:

#### **A Practising**

##### **1. Repeating**

Saying or doing something over and over: imitating a native speaker.

2. *Formally Practising with Sounds and Writing Systems*

Practising sounds (pronunciation, intonation, etc.) in a variety of ways, but not yet in naturalistic communicative practice; or practising the new writing system of the target language.

3. *Recognizing and Using Formulas and Patterns*

Being aware of and/or using routine formulas such as "Hello, how are you?"; and unanalysed patterns, such as, "It's time to ----".

4. *Recombining*

Combining known elements in new ways to produce a longer sequence.

5. *Practising Naturalistically*

Practising the new language in natural settings, as in participating in a conversation, or writing a letter in the new language.

**B Receiving and Sending Messages**

1. *Getting the Idea Quickly*

Using skimming to determine the main ideas or scanning to find specific details of interest.

2. *Using Resources for Receiving and Sending Messages*

Using print or nonprint resources to understand incoming messages or produce outgoing messages.

**C Analysing and Reasoning**

1. *Reasoning Deductively*

Using general rules and applying them to new target language situations.

2. *Analysing Expressions*

Determining the meaning of a new expression by breaking it down into parts.

### 3. *Analysing Contrastively*

Comparing elements (vocabulary) of the new language with elements of one's own language to determine similarities and differences.

### 4. *Translating*

Converting a target language expression into the native language; or converting the native language into the target language.

### 5. *Transferring*

Directly applying knowledge of words, concepts, or structures from one language to another in order to understand or produce an expression in the new language.

## **D Creating Structure for Input and Output**

### 1. *Taking Notes*

Writing down the main idea or specific points.

### 2. *Summarizing*

Making a summary or abstract of a longer passage.

### 3. *Highlighting*

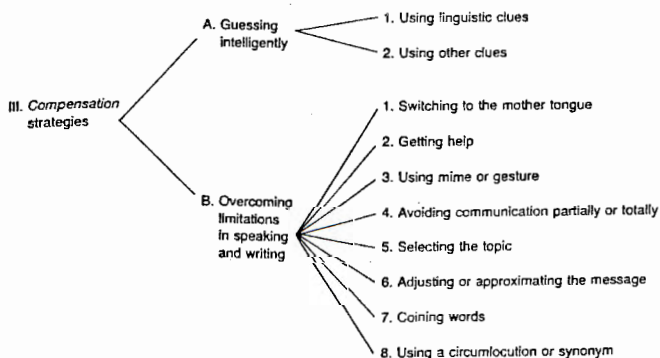
Using a variety of emphasis techniques (e.g. colour-coding) to focus on important information in a passage.

#### **4.4.4.1.3 Compensation Strategies**

Compensation strategies enable learners to use the new language for either comprehension or production despite limitations in knowledge. Compensation strategies are intended to make up for an inadequate repertoire of grammar and, especially, of vocabulary. Compensation strategies allow learners to produce spoken or written expression in the new language without complete knowledge. According to Oxford (1990:49) less proficient language learners need compensatory strategies, because they run into knowledge roadblocks more often than do individuals who are skilled in the language. Researchers have used the term *communication strategies* in

a very restricted sense, referring to strategies which compensate for missing knowledge only during conversational speech production. Tarone's (1977; 1980; 1983) list of communication strategies includes *paraphrasing* (approximating, word coinage and circumlocution), *borrowing* (literal translation, language switch, appeal for assistance and mime), and *avoidance* (topic avoidance and message abandonment). As Tarone uses it, the term *communication strategies* refers only to the speaking situation, and this usage might seem to imply that communication does not occur when the learner is engaged in the other three skills, listening, reading and writing - certainly an erroneous implication. According to Oxford (1990:243) the argument that communication strategies cannot also be learning strategies is inaccurate. It is often impossible to determine whether the learner intends to use a given strategy to communicate or to learn; often the motivations are mixed, and besides, learning often results even if communication is the main goal (cf. Tarone, 1983; Rubin, 1987). According to Faerch and Kasper (1983:xvii) "learning takes place **through** communication". Candlin (1983:x) states that "communication, learning, and instruction interact and influence each other". Oxford (1990:90-95) has used the term **compensation strategies** to avoid the split between communication strategies and learning strategies, as well as the overly narrow (one-skill) interpretation of communication embodied in most uses of the term communication strategies. Figure 5 gives a schematic representation of the compensation strategies.

**Figure 5: Diagram of the Compensation Strategies**



(Oxford, 1990:48).

Oxford (1990:49-51) defines compensation strategies in the following way:

**A     *Guessing Intelligently in Listening and Reading***

1.     *Using Linguistic Clues*

Seeking and using language-based clues in order to guess the meaning of what is heard or read in the target language, in the absence of complete knowledge of vocabulary, grammar, or other target language elements.

2.     *Using Other Clues*

Seeking and using clues that are not language-based. Nonlanguage clues include: knowledge of context, text structure, personal relationships, or "general world knowledge".

**B     *Overcoming Limitations in Speaking and Writing***

1.     *Switching to the Mother Tongue*

Using the mother tongue for an expression without translating it, as in "Ich bin eine girl".

2.     *Getting Help*

Asking someone for help by hesitating or explicitly asking the person to provide the missing expression in the target language.

3.     *Using Mime or Gesture*

Using physical motion in place of an expression to indicate the meaning.

4.     *Avoiding Communication Partially or Totally*

Partially or totally avoiding communication when difficulties are anticipated.

5.     *Selecting the Topic*

Choosing the topic of conversation in order to direct the communication to one's own interests and making sure the topic is one in which the learner has sufficient vocabulary and grammar to converse.

#### 6. *Adjusting or Approximating the Message*

Altering the message by omitting some items of information, making ideas simpler or less precise, or saying something slightly different that means almost the same thing, such as saying pencil for pen.

#### 7. *Coining Words*

Making up new words to communicate the desired idea.

#### 8. *Using a Circumlocution or Synonym*

Getting the meaning across by describing the concept (circumlocution) or using a word that means the same thing (synonym).

### **4.4.4.2 Application of the Direct Strategies to the Four Language Skills**

The advantage of Oxford's (1990) classification system is that it makes it possible to link all the strategies to the relevant language skills. Owing to the comprehensive nature of her classification system only a few examples, showing how the direct strategies can be applied to the four language skills (listening(L); speaking(S); reading(R); writing(W)), are mentioned. The examples mentioned in this section (4.4.4.2) were all devised by Oxford (1990). For a more detailed discussion Oxford (1990:57-133) can be consulted.

#### **4.4.4.2.1 Memory Strategies**

##### **A Creating Mental Linkages**

An example of associating/elaborating in the listening (L) area is as follows: Mike wants to remember the name of Solange, the university librarian, who has just been introduced in French. He associates the name Solange with something else about her by saying, "So long, library, I'm leaving!" or "Solange's face is so long".

#### **4.4.4.2.2 Cognitive Strategies**

##### **A Practising**

In the speaking (S) area, practising naturalistically involves practice in speaking the language for realistic communication. Casual chatting with friends in the target

language helps improve communication skills. Role-plays, drama activities, games, simulations and structured communication exercises offer practice that directs learners' attention toward the communication of meaning.

## **B Creating Structure for Input and Output**

At the early stages of language learning, summarizing can be as simple as just giving a title to what has been read (R). The title functions as a kind of summary of the story.

### **4.4.4.2.3 Compensation Strategies**

## **B Overcoming Limitations in Speaking and Writing**

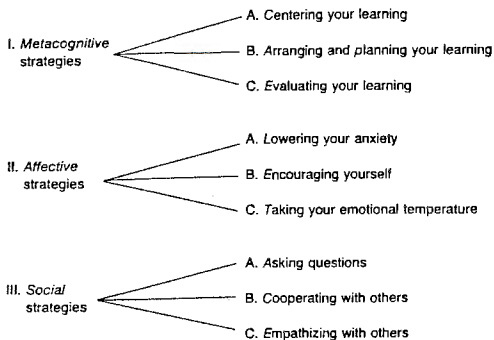
When there is no time to look up the correct word, writers sometimes make up their own words (coining words) to get the meaning across. For example, Stavros uses the term **tooth doctor** instead of **dentist** when writing (W) a note to indicate where he is going this afternoon.

In this section it was shown how some direct strategies can be used to enhance performance in the four language skills. However, as Oxford (1990:98) mentions, "these strategies, to be used most effectively, require their allies, the indirect strategies".

### **4.4.4.3 Indirect Strategies**

Indirect strategies are divided into metacognitive, affective and social strategies (cf. Figure 6). **Metacognitive strategies** allow learners to regulate their own learning and control their own cognition, that is, to coordinate the learning process by using functions such as centring, arranging, planning and evaluating. **Affective strategies** help to regulate emotions, motivations and attitudes. **Social strategies** help students learn through interaction with others. According to Oxford (1990:135) all these strategies are called "indirect" because they "support and manage language learning without (in many instances) directly involving the target language".

**Figure 6: Diagram of the Indirect Strategies**

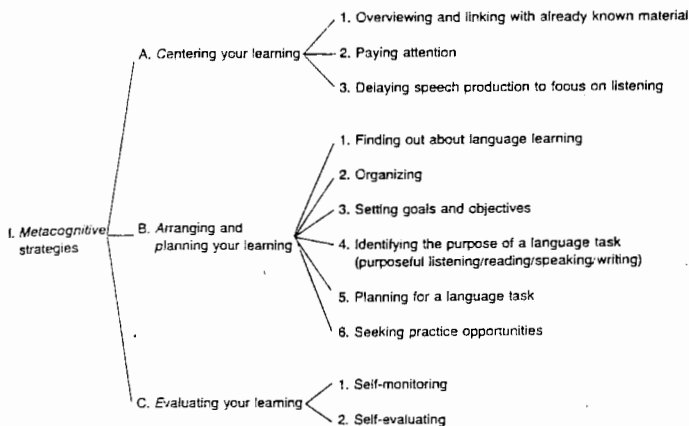


(Oxford, 1990:136).

#### **4.4.4.3.1 Metacognitive Strategies**

According to Oxford (1990:136) "metacognitive means beyond, beside, or with the cognitive". Metacognitive strategies, therefore, provide learners with a way to coordinate their own learning process. Language learners are sometimes confronted with a wealth of new information, such as unfamiliar vocabulary, different writing systems, and so on. With all this "newness" many learners tend to lose their focus, which can only be regained by making use of metacognitive strategies (O'Malley et al., 1985a; 1985b; Oxford, 1990). According to O'Malley and Chamot (1990:99) "students without metacognitive approaches are essentially learners without direction and ability to review their progress, accomplishments, and future learning directions". Figure 7 gives a schematic representation of the metacognitive strategies.

**Figure 7: Diagram of the Metacognitive Strategies**



(Oxford, 1990:137).

Oxford (1990:138-140) defines metacognitive strategies in the following way:

### **A Centring Your Learning**

#### **1. *Overviewing and Linking with Already Known Material***

Overviewing comprehensively a key concept, principle, or set of materials in an upcoming language activity and associating it with what is already known.

#### **2. *Paying Attention***

Deciding in advance to pay attention in general to a language learning task and to ignore distractors (directed attention) and/or to pay attention to specific aspects of the language or to situational details (selective attention).

#### **3. *Delaying Speech Production to Focus on Listening***

Deciding in advance to delay speech production in the new language either totally or partially, until listening comprehension skills are better developed.

## **B Arranging and Planning Your Learning**

### *1. Finding out about Language Learning*

Making efforts to find out how language learning works by reading books and talking with other people, and then using this information to help improve one's own language learning.

### *2. Organizing*

Understanding and using conditions related to optimal learning of the new language; organizing one's schedule, physical environment and language learning notebook.

### *3. Setting Goals and Objectives*

Setting aims for language learning, including long-term goals (e.g. being able to use the language for informal conversation by the end of the year) or short-term objectives (e.g. finishing reading a short story by Friday).

### *4. Identifying the Purpose of a Language Task*

Deciding the purpose of a particular language task involving listening, reading, speaking, or writing. For example, listening to the radio to get the latest news on the stock exchange, reading a play for enjoyment, speaking to the cashier to buy a train ticket, writing a letter to persuade a friend not to do something rash.

### *5. Planning for a Language Task*

Planning for the language elements and functions necessary for an anticipated language task or situation. This strategy includes four steps: describing the task or situation, determining its requirements, checking one's own linguistic resources, and determining additional language elements or functions necessary for the task or situation.

### *6. Seeking Practise Opportunities*

Seeking out or creating opportunities to practise the new language in naturalistic situations, such as going to a second/foreign language cinema, attending a party where the language will be spoken, or joining an international social club.

## **C Evaluating Your Learning**

### 1. *Self-Monitoring*

Identifying errors in understanding or producing the new language, determining which ones are important, tracking the source of important errors, and trying to eliminate such errors.

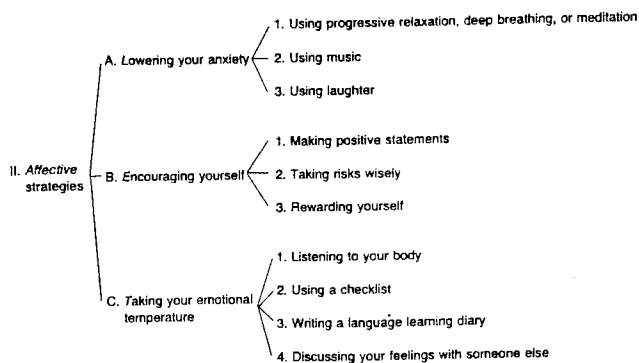
### 2. *Self-Evaluating*

Evaluating one's own progress in the new language, for instance, by checking to see whether one is reading faster and understanding more than one month or six months ago, or whether one is understanding a greater percentage of each conversation.

#### **4.4.4.3.2 Affective Strategies**

The term "affective" refers to emotions, attitudes, motivations and values. According to Brown (1987:99) "the affective domain is impossible to describe within definable limits". The affective side of the learner is probably one of the biggest influences on language learning success or failure. Good language learners are often those who know how to control their emotions and attitudes about learning (cf. Naiman *et al.*, 1975; Wenden, 1986a; 1986b). According to Krashen (1985:3) an affective filter controls how much input the learner comes into contact with, and how much input is converted into intake. It is "affective" because the factors which determine its strength have to do with the learner's motivation, self-confidence or anxiety state. Learners with high motivation and self-confidence and with low anxiety have low filters and so obtain and let in plenty of input. Learners with low motivation, little self-confidence and high anxiety have high filters and so receive little input and allow even less in. The Affective Filter influences the rate of development, but it does not affect the route. Figure 8 gives a schematic representation of affective strategies.

**Figure 8: Diagram of the Affective Strategies**



(Oxford, 1990:141).

Oxford (1990:143-144) defines affective strategies in the following way:

### **A Lowering Your Anxiety**

#### **1. *Using Progressive Relaxation, Deep Breathing, or Meditation***

Using the technique of alternately tensing and relaxing all of the major muscle groups in the body, as well as the muscles in the neck and face, in order to relax; or the technique of breathing deeply from the diaphragm; or the technique of meditating by focusing on a mental image or sound.

#### **2. *Using Music***

Listening to soothing music, such as classical concert, as a way to relax.

#### **3. *Using Laughter***

Using laughter to relax by watching a funny movie, reading a humorous book, listening to jokes, and so on.

## **B Encouraging Yourself**

### 1. *Making Positive Statements*

Saying or writing positive statements to oneself in order to feel more confident in learning the new language.

### 2. *Taking Risks Wisely*

Pushing oneself to take risks in a language learning situation, even though there is a chance of making a mistake or looking foolish. Risks must be tempered with good judgment.

### 3. *Rewarding Yourself*

Giving oneself a valuable reward for a particularly good performance in the new language.

## **C Taking Your Emotional Temperature**

### 1. *Listening to Your Body*

Paying attention to signals given by the body. These signals may be negative, reflecting stress, tension, worry, fear and anger; or they may be positive, indicating happiness, interest, calmness and pleasure.

### 2. *Using a Checklist*

Using a checklist to discover feelings, attitudes and motivations concerning language learning in general, as well as concerning specific language tasks.

### 3. *Writing a Language Learning Diary*

Writing a diary or journal to keep track of events and feelings in the process of learning a new language.

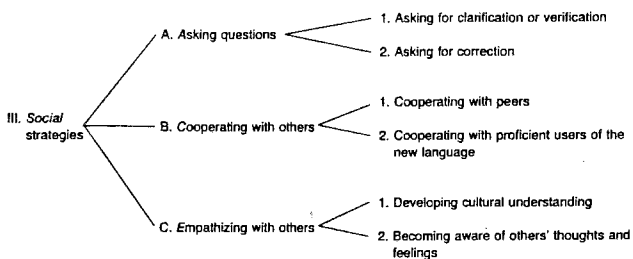
### 4. *Discussing Your Feelings with Someone Else*

Talking with another person to discover and express feelings about language learning.

#### 4.4.4.3.3 Social Strategies

Language is a form of social behaviour; it is communication, and communication involves people. Social learning strategies are important for exposing the learner to the target language, increasing the amount of interaction with native speakers, and enhancing motivation. Figure 9 gives a schematic representation of social strategies.

**Figure 9: Diagram of the Social Strategies**



(Oxford, 1990:145).

Oxford (1990:146-147) defines social strategies in the following way:

#### **A Asking Questions**

##### 1. *Asking for Clarification or Verification*

Asking the speaker to repeat, paraphrase, explain, slow down, or give examples; asking if a specific utterance is correct or if a rule fits a particular case; paraphrasing or repeating to get feedback on whether something is correct.

##### 2. *Asking for Correction*

Asking someone for correction in a conversation.

## **B Cooperating with Others**

### 1. *Cooperating with Peers*

Working with other language learners to improve language skills. This strategy can involve a regular learning partner or a temporary pair or small group.

### 2. *Cooperating with Proficient Users of the New Language*

Working with native speakers or other proficient users of the new language, usually outside of the language classroom. This strategy involves particular attention to the conversational roles each person takes.

## **C Empathizing with Others**

### 1. *Developing Cultural Understanding*

Trying to empathize with another person through learning about the culture, and trying to understand the other person's relation to that culture.

### 2. *Becoming Aware of Others' Thoughts and Feelings*

Observing the behaviour of others as a possible expression of their thoughts and feelings; and when appropriate, asking about thoughts and feelings of others.

In the following section the indirect strategies are applied to the four language skills.

#### **4.4.4.4 Application of the Indirect Strategies to the Four Language skills**

Owing to the comprehensive nature of Oxford's (1990) classification system only a few examples, showing how the indirect strategies can be applied to the four language skills, are discussed. The examples mentioned in this section (4.4.4.4) were all devised by Oxford (1990). For a more detailed discussion of the application possibilities Oxford (1990:151-191) can be consulted.

##### **4.4.4.4.1 Metacognitive Strategies**

## **B Arranging and Planning Your Learning**

Goals and objectives are expressions of students' aims for language learning. Speaking (S) goals might be to develop sufficient speaking skill to survive in a

second language environment, to communicate occasionally with acquaintances who speak the target language, to negotiate foreign travel arrangements, and so on. For example, Alfonso will speak English for half an hour with his teacher and will apply some of the new conversation management techniques he has just learned.

Goals for writing (W) might include developing enough writing skill to maintain correspondence with foreign friends, to succeed in school or university courses conducted entirely in the target language, to write acceptable business letters or even articles for journals. For example, Edward hopes to meet his early and intermediate writing deadlines, so that he can avoid a "crash" writing effort at the end.

#### **4.4.4.4.2 Affective Strategies**

##### **A Lowering Your Anxiety**

This strategy is useful before any stressful language task. Music (L) can calm learners and put them in a positive mood for learning. For example, Sarah relaxes with classical music before her German study lessons.

#### **4.4.4.4.3 Social Strategies**

##### **A Asking Questions**

When reading (R), learners can ask someone more proficient in the target language for clarification or verification. For example, Vicki, reading a French passage, does not comprehend the meaning of the phrase **a toute allure**, confusing it with **a tout a l'heure**. She asks Helene for clarification and is told that the first expression means "at great speed" and the second means "see you very soon".

Oxford (1990:173) states that: "These strategies (indirect strategies) provide a rich and powerful support to any language learning effort". In order to get the best results they must be used together with the direct strategies (cf. sections 4.4.4.1 and 4.4.4.2).

In the following section a brief critique of the various classification systems is given.

#### 4.5 A Critique of the Classification Systems

The method of data collection seems to be the biggest problem with most classification systems when one considers the varied degrees of success of different methodologies in eliciting strategies and the varied types of strategies that have emerged depending on the data collection procedure employed. Both Naiman et al. (1978:5-25) and Rubin (1981:117-131) feel that classroom observation is the least useful of the methods for identifying strategies. Naiman et al. (1978:65) state that classroom observation is a complete "failure".

O'Malley and Chamot (1990:7) criticize the classification systems of Naiman et al. (1978) and Rubin (1981) because they "do not have any grounding in the theories of second language acquisition or cognition. Consequently, it is difficult to winnow out from the extensive listing of strategies and techniques which ones are fundamental for learning, which ones might be most useful to other learners, and which should be combined with others to maximize learning effectiveness".

Wenden (1983:103-121) recommends using classification systems like Rubin's in future research and proposes refining the classification based on the results of new data collection. One possibility is to add a specific metacognitive component to the strategies Rubin suggested. In the work of O'Malley et al. (1985b:285-296) the metacognitive component is added. It seems as if classification systems tend to change as soon as new research findings occur. It is, therefore, difficult to choose one specific classification system, because there is hardly any consensus among researchers regarding questions such as: What are strategies? Can a hierarchy of strategies exist? Which strategies are the most important? For whom are they important?

However, Oxford's (1990:14-191) classification system is more comprehensive and detailed than earlier classification systems. It is also more systematic in linking individual strategies, as well as strategy groups, with each of the four language skills (listening, speaking, reading and writing). It uses less technical terminology. Oxford's (1990:14-191) classification system has several advantages in that it:

- \* Contains a two-part organization rather than a more complex organization.
- \* Covers the whole range of L2 learning strategies within the two-part classification.

- \* Clearly defines the strategies contained in it.
- \* Applies every strategy to each relevant language skill.
- \* Is based on an extensive review of empirical research, not just on personal experience or classroom observation.
- \* Is designed for practical use.

Oxford's (1990) classification system can be used by students, language teachers, curriculum developers and researchers in a variety of ways. For example, students are likely to find new strategy ideas in the system and may be in a position to judge which ones would be most useful and comfortable for them as learners. Teachers can use the system to help structure strategy training, or simply to become more aware of their students' strategies. Curriculum developers can create strategy training plans using the system. Researchers can obtain fresh ideas for investigations based on the system. The classification system is also useful as a quick aid for understanding any given strategy (i.e. in terms of definition and application to the language skills).

The field of LLS research would be helped considerably if researchers could come to some consensus on definitions of various strategies. As yet there is neither agreement on an overall, hierarchically organized typology or system, nor on ways to delimit or define a given strategy or cluster of strategies. Different researchers use different terms and concepts. Greater agreement and more standardized procedures will increase comparability across studies, allowing results to have greater generalizability and explanatory power.

Even though there has been, and still is, a great deal of controversy regarding the definition and classification of language learning strategies, researchers seem to agree that language learning strategies are important when learning a second language. In the following section the importance of language learning strategies is considered.

#### **4.6 The Importance of Language Learning Strategies**

Language learning strategies are steps taken by students to enhance their own learning. Oxford (1990:1) states that "strategies are especially important for

language learning because they are tools for active, self-directed involvement, which is essential for developing communicative competence". According to most researchers (e.g. O'Malley et al., 1985a:21-46; Wenden, 1987b:103-115; Oxford & Nyikos, 1989:291-297) appropriate use of language learning strategies results in improved proficiency and greater self-confidence.

Wenden (1985:1-7) provides four explanations for the significance of learning strategies. First, learning strategies are the key to learner autonomy. Second, one of the goals of L2 training should be to facilitate learner autonomy, although this facilitation might require overcoming the learner's belief that learning is classroom-dependent or teacher-dependent. Third, learning strategies are a source of insight into the difficulties of unsuccessful learners, whose learning problems are often related to not having an appropriate repertoire of learning strategies. Fourth, teachers should become attuned to their students' learning strategies through observation and formal strategy assessment.

Several facts gleaned from existing research can be used to support Wenden's arguments for the importance of learning strategies. First, studies show that learning strategies can be improved or modified through training (Dansereau, 1978; O'Malley, Russo & Chamot, 1983a; O'Malley et al., 1983b; Weinstein et al., 1984). According to Mayer (1980:770-784) instructional manipulation is often most effective for low-ability students. Second, successful language learners tend to use "good" strategies more often than unsuccessful language learners (Naiman et al., 1975; Rubin, 1975; Rubin & Thompson, 1982; Reiss, 1981; 1985). Third, awareness of the strategies which are most relevant to an individual's own set of L2 needs is likely to enhance the L2 learning of the individual. Oxford (1986:2) states that learning strategies are highly individualized and personalized.

Language learning strategies have certain features which also contribute to their importance. Communicative competence is an aim all language learners strive for. In order to develop communicative competence, realistic interaction among learners, using meaningful, contextualized language, is required. Learning strategies can help learners to participate actively in such authentic situations.

Oxford (1990:8) mentions that LLSs can stimulate the growth of communicative competence in general. For example, metacognitive strategies help learners to regulate their own cognition and to focus, plan and evaluate their progress as they

move toward communicative competence. Affective strategies develop the self-confidence and perseverance needed for learners to involve themselves actively in language learning, a requirement for attaining communicative competence. Social strategies provide increased interaction and more empathetic understanding, two qualities necessary to reach communicative competence. Certain cognitive strategies are highly useful for understanding and recalling new information. Compensation strategies aid learners in overcoming knowledge gaps and continuing to communicate authentically.

As the learner's competence grows, strategies can act in specific ways to foster particular aspects of that competence: grammatical, sociolinguistic, discourse and strategic elements. For example, memory strategies, such as using imagery and structured review, and cognitive strategies, such as reasoning deductively and using contrastive analysis, strengthen grammatical accuracy. Compensation strategies, such as guessing when the meaning is not known, or using synonyms or gestures to express meaning of an unknown word or expression, are the heart of strategic competence (Oxford, Lavine & Crookall, 1989:29-39).

Language learning strategies encourage greater overall self-direction for learners (Dickinson, 1987:49-62). Self-direction is particularly important for language learners, because they will not always have the teacher around to guide them when they use the language outside the classroom. Owing to conditioning by the culture and the educational system, however, many language students are passive and accustomed to being spoon-fed (Knowles, 1975:44-121). They like to be told what to do, and they do only what is clearly essential to get good results - even if they fail to develop useful skills in the process. Self-directed students gradually gain greater confidence, involvement and proficiency.

Language learning strategies are tools. They are used because there is a problem to solve, a task to accomplish, an objective to meet, or a goal to attain. For example, a learner uses one of the reasoning or guessing strategies to better understand a second language reading passage. Memory strategies are used because there is something that must be remembered.

Some aspects of the learner's makeup, like general learning style or personality traits, are very difficult to change. In contrast, learning strategies are easier to teach and modify. This can be done through strategy training which, according to Oxford

(1990:12), is an essential part of language training. Strategy training helps guide learners to become more conscious of strategy use and more adept at employing appropriate strategies.

Language learning strategies are flexible; that is, they are not always found in predictable sequences or in precise patterns. There is a great deal of individuality in the way learners choose, combine and sequence strategies. Currently, this is the subject of much research (cf. Wenden & Rubin, 1987; O'Malley & Chamot, 1990; Vann & Abraham, 1990).

#### **4.7 The Good Language Learner vs The Poor Language Learner**

In the 1970s a vast amount of research on second language acquisition was done, resulting in the realization that no single research finding and no single method of language teaching would usher in an era of utopia of absolute, predictable success in teaching a second language. Certain learners appeared to be endowed with abilities to succeed, others lacked those abilities. This observation led researchers (e.g. Rubin, 1975; Stern, 1975; Naiman et al., 1978; Ellis, 1986) to describe what "good" language learners did and what "poor" language learners did not do. This was, therefore, an attempt to help "poor" learners to improve their language learning abilities.

What strategies do good language learners use to move from zero to a workable competence? Rubin (1975:44-48) listed seven "good" language learner characteristics:

- \* Willing and accurate guesser,
- \* Strong drive to communicate,
- \* Uninhibited,
- \* Attends to form,
- \* Practises - seeks out conversations,
- \* Monitors own speech and the speech of others,
- \* Attends to meaning.

Stern's (1975:311-316) list was remarkably similar, with ten characteristics:

- \* A personal learning style or positive learning strategies,
- \* An active approach to the learning task,
- \* A tolerant and outgoing approach to the target language and empathy with its speakers,
- \* Technical know-how about how to tackle a language,
- \* Strategies of experimentation and planning with the object of developing the new language into an ordered system and of revising this system progressively,
- \* Constantly searching for meaning,
- \* Willingness to practise,
- \* Willingness to use the language in real communication,
- \* Self-monitoring and critical sensitivity to language use,
- \* Developing the target language more and more as a separate reference system and learning to think in it.

It must be remembered that these characteristics are still highly speculative. Brown (1987:95) states that: "We have much to learn in the area of discovering optimal learning strategies for successful acquisition of a second language". It is by a better understanding of learners and especially their learning strategies during the learning process, their successes as well as their difficulties and failures, that gradually a better understanding of language learning and teaching can be reached.

A very large amount of research (e.g. Rubin, 1975; Stern, 1975; Naiman et al., 1978; Politzer, 1983; O'Malley et al., 1985a; 1985b; Wenden, 1985; Wenden & Rubin, 1987) has been conducted in order to establish a "profile" of the "good language learner", but what about the "poor language learner"? There is a definite gap in research regarding the "poor language learner". The basis for training has typically been descriptions of the strategies of successful language learners (cf. Naiman et al., 1975; Rubin, 1975; Stern, 1975) on the assumption that poor language learners lack

these strategies. Only in a few studies (e.g. Hosenfeld, 1976; Abraham & Vann, 1987; Chamot & Kupper, 1989) have unsuccessful language learners been observed. These researchers found that the poor language learners were not "inactive", but that they also had a repertoire of strategies. However, it is also true that they did not automatically use the best, or widest range of strategies.

It would, therefore, seem as if more research is necessary before it can be possible to make a case for typifying language learners. The "good language learner" has not yet been defined, although it would seem as if the "successful" learners use more and better learning strategies than do "unsuccessful" language learners. A few early attempts to train unsuccessful learners to use the strategies of their more successful peers resulted in improved performance (cf. Cohen & Aphek, 1980; Hosenfeld, 1984).

The following section focuses on factors affecting the choice of language learning strategies.

#### **4.8 Factors Influencing Strategy Choice**

Various researchers (e.g. Bialystok, 1981; Politzer, 1983; Wenden, 1986a; Ehrman & Oxford, 1989; Oxford & Nyikos, 1989) have identified several factors which might affect the choice of LLSs. Some of these factors are briefly discussed below.

##### **4.8.1 Language being Learned**

The language being studied has an influence on the strategies that are used. Chamot et al. (1987:40-121) found that students of Russian reported greater strategy use than students of Spanish. Likewise Politzer (1983:54-65), in examining the learning strategies of students of French, Spanish and German, discovered that students of Spanish engaged in fewer positive strategies than did students of the other languages. However, as Oxford (1989:236) mentions, it is likely that language of study interacts with a host of other variables.

##### **4.8.2 Duration**

Duration includes both course level and number of years of language study. As language students progress to higher course levels, they use somewhat different strategies, according to several researchers. For example, Politzer (1983:54-65)

discovered that course level influenced the use of foreign language learning strategies, with higher-level students using more positive strategies. Chamot *et al.* (1987:40-121) found that cognitive strategy use decreased and metacognitive strategy use increased as the foreign language course level increased, but social-affective strategy use remained very low across all course levels.

According to Tyacke and Mendelsohn (1986:171-183) more advanced language learners diminished their use of less useful strategies and geared their strategy use more directly to the language learning task at hand. Tyacke and Mendelsohn's (1986:171-183) diary study showed that lower-level students generally depended much more on their teacher and on the linguistic code than did higher-level students.

Bialystok (1981:24-35) found differences in strategy use as learners advanced in French. Formal practice with rules and forms was less and less effective as students advanced, but functional practice with authentic, communicative language displayed no such limitation. The findings of Oxford and Nyikos (1989:293-297) support Bialystok's finding; these researchers discovered that foreign language students who had studied the new language for a minimum of four or five years used communication-oriented strategies significantly more often than did less experienced students.

Advancement in course level or years of study does not necessarily mean that students use better strategies in every instance. Cohen and Aphek (1981:221-236), in studying English speakers who were learning Hebrew, discovered that both good and bad learning strategies appeared across course levels. Nevertheless, most of the research does indeed show that, in general, the more advanced the language learner, the better the strategies used.

#### **4.8.3 Sex**

The omission of sex as a variable in language learning strategy research is rather surprising, since sex is a classic and significant predictor in other educational, psychological and linguistic research (cf. Maccoby & Jacklin, 1974). Most researchers have not investigated sex differences in language learning strategy use, or have ignored the sex differences they found.

In a review of some eighty articles, papers and chapters describing language learning strategy research, Oxford (1989:235-247) found only four studies which directly examined sex differences in strategy use. In the four studies which examined sex as a variable in the use of LLSs, significant sex differences almost always occurred in a single direction, reflecting greater use of language learning strategies by females.

Politzer (1983:54-65) conducted a study of the LLSs of 90 undergraduate students enrolled in French, Spanish and German. He reported that females used social learning strategies significantly more often than males. Politzer's (1983:62) only comment was: "Variance due to sex of learner seems relatively minor, but does exist with regard to such variables as social interaction". With this he appears to have dismissed the entire question of sex differences. Oxford et al. (1988:322) speculate that Politzer's demonstration of greater social LLS use by females than males might relate to the fact that females generally display greater social orientation than males. In a review by Maccoby and Jacklin (1974:10-100) it was revealed that females showed more interest than males in social activities, females' tastes were more directed toward "gentler" aspects of interpersonal relationships and less toward aggression and action, and females were more cooperative and less competitive than males.

A factor-analytic study of 1200 university students was conducted by Oxford and Nyikos (1989:291-300). The factors which emerged in this study were:

- \* formal rule-related practice strategies (1),
- \* functional practice (authentic language use) strategies (2),
- \* resourceful, independent strategies (3),
- \* general study strategies (4), and
- \* conversational/input elicitation strategies (5).

Profound sex differences were among the most interesting results of this study. With highly significant probabilities, females showed greater strategy use than males for three of the five factors: general study strategies ( $p < 0,0001$ ), formal rule-related practice ( $p < 0,002$ ), and conversational/input elicitation strategies ( $p < 0,002$ ). Males showed no greater strategy use than females on any factor. According to Oxford and

Nyikos (1989:324) the fact that women, more than men, used general study strategies might reflect a desire for signs of social approval, such as good results. The stronger preference of females for these two types of strategies might also reflect women's willingness to fit in with conventional norms, both linguistic and academic (cf. Bardwick, 1971; Kramarae, 1981). The greater use of formal rule-related practice strategies by women might also echo women's demonstrated superiority in verbal ability. Tyler (1965:57) has shown that females typically excel at verbal fluency.

It is, therefore, important that if sex differences are found in future research, either in initial studies or replications, they should not be ignored, but rather examined from theoretical and practical viewpoints.

#### **4.8.4 Attitudes**

Attitudes strongly influence language learning in general and are, therefore, likely to influence the choice of strategies. Bialystok (1981:24-35) found that learners' attitude was highly influential in their choice of LLS - more influential than language aptitude. Little other empirical research has been done on the influence of attitudes on strategy choice, but Wenden (1987a:3-13) has convincingly argued that unless negative attitudes toward learner self-direction are changed, no amount of training in better learning strategies will have a sustained effect on learning strategy use.

#### **4.8.5 Course Status, Major Field of Study and Self-Perceptions of Proficiency**

In Oxford and Nyikos' (1989:291-300) study clear differences were found for elective versus required course status for functional practice strategies ( $p < 0,002$ ) and general study strategies ( $p < 0,04$ ). For both, students who elected to learn the language rather than taking it as a graduation requirement used these kinds of strategies more often. Oxford and Nyikos (1989:295) also found that university major made a highly significant difference for resourceful, independent strategies ( $p < 0,01$ ) with humanities/social, science/education majors using them more often than the technical or business majors. Oxford and Nyikos (1989:294) mention that language proficiency self-ratings in speaking, reading and listening strongly affected strategy choice. For instance, speaking proficiency ratings were highly influential for factors two, three, four and five (cf. section 4.8.3) and had a nearly significant effect

on factor one ( $p < 0,0001$ ;  $p < 0,02$ ;  $p < 0,002$ ;  $p < 0,001$ ). Reading proficiency ratings had very highly significant effects; on factors one ( $p < 0,0001$ ), two ( $p < 0,002$ ), four ( $p < 0,0001$ ) and five ( $p < 0,0008$ ). Listening proficiency ratings powerfully influenced learners' choice of strategies in factors three ( $p < 0,0009$ ) and four ( $p < 0,004$ ). The higher the students' self-perceived proficiency in each of these three skills, the more frequently the students chose to use learning strategies in the factors mentioned above. Oxford and Nyikos (1989:294-295) state that: "Greater strategy use accompanied perceptions of higher proficiency, and a causal relationship actually existed between proficiency self-ratings and strategy use".

#### **4.8.6 Language Teaching Methods**

Language teaching methods, as well as unspoken expectations permeating the instructional environment, often influence language learning strategy use. Oxford and Nyikos (1989:294-300) found that students' LLSs mirrored analytical, rule-based language instructional methods used in the university. In contrast with the learning strategies revealed by the university studies, greater use of communication-oriented strategies was found by Ehrman and Oxford (1989:4-13) among adults who were expected to learn languages for later use on the job and whose teachers used more communicative instructional methods. Cooperative instructional methods have been shown to facilitate cooperative and communicative learner behaviours and to improve attitudes toward language learning (cf. Gunderson & Johnson, 1980; Bejarano, 1987).

It has been shown that language teaching methods frequently affect use of language learning strategies. However, most language teachers are not aware of their students' learning strategies or how these strategies result in particular kinds of errors (Cohen & Robbins, 1976; Cohen et al., 1979; O'Malley et al., 1985a; O'Malley et al., 1985b). Oxford (1989:243) points out that, "because teaching methods often influence how students learn, teachers should become more aware of their students' learning strategies in order to orient teaching methods more appropriately".

#### **4.8.7 Task Requirements**

The immediate requirements of language tasks can influence the use of LLSs. Bialystok (1981:24-35) found that students responded to different task requirements

with different strategies. Some strategies were useful only for certain kinds of tasks; for example, monitoring one's errors was more useful for writing tasks than reading or speaking tasks. As noted earlier (cf. section 4.8.2), more advanced students keyed their strategy use to particular language task requirements, whereas the less advanced students did so to a lesser extent.

In this section (4.8) a myriad of factors related to language learning strategy use was mentioned. However, it is essential to mention that more research is needed to either substantiate or refute the findings of existing research. The research findings that exist do not conclusively prove that all these variables have an influence on the choice of language learning strategies.

The question that now arises is: Do language learning strategies really have an effect on the L2 proficiency of language learners? In the following section various studies which have attempted to provide evidence for a relationship between LLSs and L2 proficiency are discussed.

#### **4.9 The Relationship between LLSs and L2 Proficiency**

Various studies (e.g. Bialystok, 1981; O'Malley et al., 1985a; 1985b; Abraham & Vann, 1987) have attempted to show that a positive relationship exists between language learning strategies and the different levels of language proficiency of students.

To assess the extent to which the use of the learning strategies affected proficiency on four different criterion measures (standardized International Educational Achievement, IEA, tests - reading, listening, writing and grammar) Bialystok (1981:27-35) used stepwise regression analyses to analyse the data. Her subjects included 76 grade 10 students and 71 grade 12 students. The findings showed that the strategies (monitoring, functional practice, formal practice and inferencing) had positive effects on proficiency in certain kinds of tests. A small positive relationship existed between strategy use and proficiency in grade 10, but a significant positive relationship existed between strategy use and proficiency in the listening ( $p < 0,01$ ), writing ( $p < 0,01$ ) and grammar tests ( $p < 0,01$ ). The strategy most responsible for proficiency on all tasks was functional practice. However, it should also be noted that the extent of use of strategies made a greater difference to proficiency in grade 12 than in grade 10.

One of the purposes of the O'Malley et al. (1985a:21-46) study was to determine whether the strategies used interact with the level of proficiency of the students. The subjects were 70 high school age students enrolled in ESL classes. The students were divided into two levels: Beginning level (students who have little or no proficiency in English) and Intermediate level (students with limited proficiency). Results revealed that intermediate level students tended to use proportionately more metacognitive strategies than students with beginning level proficiency. Whereas intermediate level students used 34,9% metacognitive strategies, beginning level students used 27,4% metacognitive strategies. However, overall, both beginning and intermediate level students used cognitive strategies more than they did metacognitive strategies. It is also interesting that beginning level students find it difficult to contextualize because it presumes some level of proficiency (Cohen & Aphek, 1981:221-235).

Abraham and Vann (1987:85-99) were interested in students who had enrolled for an intensive English as a Second Language (ESL) programme at a university, where "success" meant passing the Test of English as a Foreign Language (TOEFL) and being able to function adequately in a university environment. In their case study they chose two subjects: Gerardo (successful) and Pedro (unsuccessful). Gerardo obtained a final TOEFL score of 523, whereas Pedro obtained a TOEFL score of 473 (a more detailed discussion of TOEFL scores is given in chapter 6). The results of Abraham and Vann's (1987) study indicate that Gerardo used a greater variety of strategies, as well as several strategies far more frequently than Pedro. Strategies were identified in two ways. Firstly, by means of interviews and secondly, by presenting the subjects with tasks typical of those assigned in their English classes. Gerardo used a total number of 317 strategies during the interviews, whereas Pedro only used 81. Gerardo also used 32 different strategies, whereas Pedro only used 19.

It would, therefore, seem as if there is a certain pattern or relationship between LLSs and L2 proficiency. In all the above studies it was shown that more proficient language learners use more strategies. The more proficient language learners also used a greater variety of strategies and the frequency of use was also higher. An important point to bear in mind is that the "poor" language learners also used a number of strategies; they are, therefore, not "inactive". It would seem as if they have a problem with applying the correct strategy to the particular task at hand. It might also be that their repertoire of strategies is very limited. More research is needed to find out exactly what the poor language learner does.

#### 4.10 Conclusion

Much of the early research on learning strategies in second language acquisition (SLA) was concerned with definitions and classifications in which varied methodologies were used to identify strategies or to group strategies into common categories. It is quite conceivable that the debates about which specific definition of a particular strategy or which classification scheme is best could continue in the literature for some time. However, while these debates about definitions and classifications are productive, they should not occupy the exclusive attention of researchers. There are good reasons why differences might be expected in strategy definitions and classification schemes based on theory as opposed to definitions and classifications based on various methodologies of data collection. The studies mentioned in this chapter seem to indicate that a positive relationship exists between LLSs and L2 proficiency. However, it would seem as if the strategies used by "unsuccessful" language learners need to be investigated further. It is essential that future LLS research should concentrate on strategy training in order to make ESL learners more adept at employing appropriate strategies.

## CHAPTER 5

### PERSONALITY CHARACTERISTICS AND ESL PROFICIENCY

#### 5.1 Introduction

The previous two chapters dealt with two facets of the cognitive domain of language learning: field independence/dependence and language learning strategies. However, if theories of second language acquisition or teaching methods were devised only on cognitive considerations, a fundamental side of human behaviour would be omitted. Ernest Hilgard (1963:267), well known for his study of human learning and cognition, notes that "purely cognitive theories of learning will be rejected unless a role is assigned to affectivity". In recent years there has been an increasing awareness of the necessity in second language research and teaching to examine human personality in order to find solutions to perplexing problems. In this chapter the focus is on various personality characteristics and their relationship with SLA. Various studies which have attempted to provide evidence for a relationship between personality and SLA are discussed critically. The aim of this chapter is to reach a conclusion regarding the importance, if any, of various personality types/traits for second language acquisition.

#### 5.2 The Problem of Defining Personality Characteristics

In general psychology, personality has been explored in terms of a number of personal types/traits, which in total are said to constitute the personality of an individual. Personality has been measured in a variety of ways by researchers (cf. section 5.2.1). The Institute for Psychometric Research of the Human Sciences Research Council adapted the High School Personality Questionnaire, originally devised by Cattell and Cattell, for use in South Africa. This questionnaire makes use of a series of dichotomies, seen as poles on a continuum, such as cool/warm, shy/venturesome, relaxed/tense, and so on. Jung's personality typology (cf. du Toit, 1983:3-4) contains four different scales, namely extroversion/introversion, thinking/feeling, sensation/intuition and judgment/perception. Various SLA researchers have chosen to develop their own battery of personality traits, calling them anything from "egocentric factors" (Brown, 1973:232) to "social styles" (Strong, 1983:246). According to Ellis (1986:120) "this confusion is the result of both the many-faceted nature of personality and the need that individual researchers have felt to investigate traits which intuitively strike them as important".

Researchers are often guilty of using rather sweeping terms as if they were carefully defined. For example, it is easy to say that "extroversion" or "self-esteem" is important for SLA, but it is quite another matter to define such terms with precision. Abstract concepts such as empathy, aggression, outgoingness, and other common terms are difficult to define operationally. Brown (1987:100) mentions that standardized psychological tests often form an empirical definition of such concepts, but constant revisions are evidence of an ongoing struggle for validity.

Nevertheless, the multi-faceted nature of these personality types/traits has not prevented researchers from trying to find out if there is any specific type of personality type/trait related to the successful acquiring of a second language.

### 5.2.1 Definitions and Measurements of Personality Types/Traits

In this section the definitions and tests used by various researchers (e.g. Pritchard, 1952; Guijora et al., 1972; Chastain, 1975; Tucker, Hamayan & Genesee, 1976; Suter, 1977; Genesee & Hamayan, 1980; Busch, 1982; Strong, 1983) to measure personality types/traits are reviewed. It is important to bear in mind that some researchers chose to define their personality types/traits in terms of the tests, or other methods of observation, used in their respective studies.

Pritchard (1952:147-148) measured *sociability* by taking time-samplings of observed social behaviour on the playground during breaks. Before any timings were made, playground activities were carefully watched with a view to deciding on those which could be regarded as indicative of sociability. The following were timed when the subject under consideration at the moment played the active part:

- \* Mild horseplay of a friendly nature;
- \* Spontaneous engagement in a game;
- \* Conversational approach to another boy when the subject actually changed his position to speak.

The subjects (thirty-two boys) were watched in random order, and unknown to themselves, for periods of four minutes each. They were then placed in the rank order of the sum of the results of three series of such observations.

*Empathy*, like so many personality variables, defies adequate definition. In common terminology, empathy is the process of "putting yourself into someone else's shoes". Guiora et al. (1972:142) define empathy as "a process of comprehending in which a temporary fusion of self-object boundaries permits an immediate emotional apprehension of the affective experience of another". Despite the difficulty of defining the concept, there is general consensus on what empathy is. Psychologists generally agree with Guiora's definition above, and add that there are two necessary aspects to the development and exercising of empathy: first, an awareness and knowledge of one's own feelings, and second, identification with another person (Hogan, 1969:307-316). Guiora et al. (1972:118-121) made use of a variety of materials to test empathy, such as: Micro-Momentary Test (MME), Thematic Apperception Test (TAT), Photographic Perception Test (PPT) and the Literature Empathy Test (LET).

Tucker et al. (1976:214-226) made use of the High School Personality Questionnaire (HSPQ) in order to attain a general assessment of personality development (mentioned in section 5.2).

The terms *extroversion* and *introversion* are often misunderstood because of a tendency to stereotype extroversion. An extroverted person is often regarded as a "life of the party" person. Introverted people, conversely, are thought of as quiet and reserved, with tendencies toward reclusiveness. Busch (1982:113) defines extroversion as "high sociability and impulsivity". Suter (1977:233-253) used the Eysenck Personality Inventory (EPI) test to measure extroversion/introversion. Chastain (1975:153-161) used the Marlowe-Crowne scale of reserved versus outgoing personality. Brown (1973:236) states that "it is common belief among teachers in general, particularly in Western society, that introversion is an undesirable behaviour". It seems as if the stereotypical extrovert is favoured. However, is it indeed true that the "proficiency" of a more introverted person is qualitatively lower than his extroverted counterpart? This question is looked at in section 5.3.

Genesee and Hamayan (1980:95-110) and also Strong (1983:241-258) made use of the Early School Personality Questionnaire (ESPQ) in order to assess various personality traits. According to Strong (1983:248) "*extroversion* refers to the degree of sociability that a child exhibits, both through a positive emotional response to people and a tendency to interact freely and boldly".

In his study Strong (1983:247-248) defined various personality traits. *Talkativeness* was defined as "the relative tendency to initiate conversations". *Responsiveness* was defined as "the relative tendency to respond to the verbal initiations of others". *Gregariousness* was defined as "the relative propensity to interact with a wide variety of different peers". *Assertiveness* was defined as "the degree to which a child is active, assertive, and aggressive, as opposed to being docile". *Social competence* was defined as "the adequacy of a child's interpersonal behaviour and the degree to which that child can assume social responsibility". *Popularity* was defined as "the relative degree to which a child is nominated by peers as a best friend or as a person they like to play with or sit next to in class".

This section indicates the wide variety of terms and definitions used and measuring instruments available to assess various personality traits. It would seem as if mixed conclusions regarding the value of personality traits are inevitable. Consensus should be reached regarding the measuring instruments of predictor variables and the criterion measures to be used. Only then will a measure of comparison and generalizability be possible.

The question that now arises is: Are there any specific personality traits that might be important for SLA? In the following section various studies which have attempted to provide evidence for a relationship between personality traits and second language acquisition are discussed.

### **5.3 The Relationship between Personality Types/Traits and SLA**

The notion of examining the possible relationships between learners' personality characteristics and their rate and degree of success in language acquisition is not new, but the findings of the studies which have been conducted to date have been contradictory (cf. section 1.1). The studies which are discussed in this section are displayed in Table 3. The table indicates the researcher(s) who conducted the study, the age of the learner, the setting, the personality trait investigated, and whether or not that trait correlated with proficiency.

**Table 3: Studies That Have Measured Personality Traits and their Relationship with SLA**

Researchers	Age	Setting	Trait	Correlation
Pritchard (1952)	A	FL	Sociability	+
Smart et al. (1970)	A	FL	Extroversion	-
Guiora et al. (1972)	A	FL	Empathy	+
Chastain (1975)	A	FL	Outgoingness	+ -
Suter (1977)	A	Nat	Extroversion	-
Busch (1982)	A	FL	Extroversion	-
Genesee & Hamayan (1980)	C	FL	Apprehensiveness, etc.	-
Strong (1983)	C	FL	Responsiveness, etc.	+

Note: A = Adult/Adolescent

C = Child

FL = Classroom setting

Nat = Naturalistic setting

+ = Positive correlation

- = Negative correlation

(Adapted from: Strong, 1983:242).

Among the studies of adults or adolescents, Pritchard (1952:148) found an association between sociability and fluency in French in a British school setting. Pritchard (1952:148) found a correlation of  $r=0,59$  between time-samplings on sociability (cf. section 5.2.1) and a French fluency test. Smart et al. (1970:415-420) measured personality traits among female freshman and sophomores in a university French programme in an attempt to identify over- and underachievers. Their main finding was that those who achieved above their predicted grade tended to be introverted. Guiora et al. (1972:111-130) found a weak correlation between their concept of empathy and pronunciation. The subjects were students engaged in an intensive three month course in one of five languages: Japanese, Chinese-Mandarin, Thai, Spanish and Russian. The scores on the MME (cf. section 5.2.1) correlated differently for different languages. The correlations were positive for Spanish ( $r=0,49$ ), Russian ( $r=0,16$ ) and Japanese ( $r=0,42$ ), while they were negative for Chinese-Mandarin ( $r= -0,35$ ) and Thai ( $r= -0,54$ ). Chastain (1975:153-161), in

contrast to Smart et al. (1970), found that outgoing students tended to have better grades in certain foreign languages, but not in others. For example, in Spanish the correlations were significant at the  $p < 0,01$  level, whereas in French they were not significant. Suter (1977:233-253) measured English pronunciation skills among university-level students from a variety of backgrounds and found no significant correlation with extroversion ( $r = 0,17$ ,  $p = 0,10$ ). Busch (1982:109-132) explored the relationship between the extroversion - introversion tendencies of Japanese students and their proficiency in English as a foreign language. Her hypothesis that extroverts were more proficient in English was not supported. None of the reported relationships between extroversion and English proficiency scores were significant.

Genesee and Hamayan (1980:95-110) found no significant relationship between five personality indices (apprehensive, tense, enthusiastic, assertive and dependent) and any of their language measures in a study of 54 first graders in an early French immersion programme. The relationship between these five variables and the Metropolitan Achievement Test (MAT) was  $r = -0,07$ ,  $r = -0,08$ ,  $r = 0,05$ ,  $r = -0,08$ ,  $r = 0,03$  respectively. Strong (1983:241-258) found a positive relationship between various personality traits and natural communicative skills among "kindergartners" learning English as a second language in the United States. The following relationships were found: A correlation of  $r = 0,72$ ,  $p < 0,05$  between talkativeness and NCL Str (natural communicative language, productive structural knowledge);  $r = 0,65$ ,  $p < 0,05$  between responsiveness and NCL Str;  $r = 0,82$ ,  $p < 0,05$  between responsiveness and play vocabulary;  $r = 0,67$ ,  $p < 0,05$  between gregariousness and play vocabulary and  $r = 0,73$ ,  $p < 0,05$  between responsiveness and pronunciation.

The above findings present what appears to be a very conflicting picture of the relationship between second language acquisition and personality characteristics, especially with regard to extroversion/introversion. Strong (1983:244) hypothesizes that all of the discrepancies in findings could be due to differences in the nature of the language being assessed. For example, when "natural communicative language" is being assessed, a relationship is demonstrated between extroversion and performance, but when "linguistic task language" is being assessed, often no relationship is found. Thus Strong's explanation, reminiscent of Cummins' distinction between CALP and BICS (cf. section 2.6.1.1), leaves intact the intuitively appealing link between extroversion and language learning, while at the same time offering a hypothesis which is testable. It would, therefore, seem as if certain

personality traits can contribute to SLA, but certain factors need to be kept in mind (e.g. the nature of the language being assessed, and different tests used to assess both predictor and criterion measures).

#### **5.4 A Critique of the Empirical Studies**

In the previous section it was mentioned that the results of the empirical research were inconclusive. However, Larsen-Freeman and Long (1991:185) mention that these studies are worth examining further for some of the issues they raise when researchers attempt to investigate the relationship between personality and SLA.

The first issue involves the measurement of the personality traits. Several researchers (e.g. Suter, 1977; Busch, 1982) have, for example, used the Eysenck Personality Inventory in order to assess personality traits. However, Naiman et al. (1978:67) voiced their concern about the construct validity of this test, that is, whether the test adequately measures the degree to which a person is extroverted. Naiman et al. (1978:67) noted the discrepancy between the researchers' opinions of the students and the results of the test. It is also significant to note that very few researchers actually mention the reliability and validity of the tests they use. If these tests are invalid, or not sufficiently valid, then obviously any relation to SLA they reveal is not likely to be authentic.

A second issue involves the SLA criterion measures used. A wide variety of tests were used to assess proficiency in the studies mentioned in section 5.3. For example, Suter (1977) correlated extroversion with a test of English pronunciation. Busch (1982) used a standardized examination with additional tests of grammar, vocabulary and comprehension. Genesee and Hamayan (1980) used a listening comprehension test, an oral production test and an achievement test. While all these tests may be valid, none of them may provide a good indication of language proficiency. The wide variety of tests used also make comparison difficult and generalizability is not always possible.

A third issue pertains to differences arising from context. Some of the studies (e.g. Chastain, 1975) dealt with speakers of European languages learning other European languages as a second language. When it is considered that national levels of extroversion are higher for Western countries than for a country such as Japan (cf. Iwawaki et al., 1977; Lynn & Hampson, 1975), it is conceivable that extroversion

might not be as significant a variable for Westerners as it might be for the Japanese. Therefore, the particular correlations that were obtained between extroversion and SLA support all kinds of interesting speculations.

Larsen-Freeman and Long (1991:186) also mention the possibility that personality traits may influence SLA indirectly as opposed to directly. For example, Busch (1982:126) reported a positive correlation ( $p < 0,02$ ) between the length of time spent studying English and extroversion. Therefore, extroversion may not in itself lead to second language proficiency, but it may be a trait that encourages people to continue with their study, which in turn promotes SLA.

Other factors that could account for the mixed findings are different sample sizes and lack of cross-validation.

## **5.5 Conclusion**

In general the available research does not show a clearly defined effect of personality on SLA. The major difficulty in investigating the effects of personality, however, remains that of identification and measurement. At the moment, a failure to find an expected relationship (e.g. between extroversion and proficiency) may be because the test used to measure the personality type/trait lacks validity. The relationships that have been found may be artefacts of the measurements used. It would seem that researchers have not been able to identify any one personality trait that can be considered to be an important predictor of SLA. However, the possibility that certain personality types/traits play important roles in the second language acquisition process cannot be discounted. Researchers simply need to find other ways to measure them. In this study two different personality questionnaires are used in order to investigate a wide variety of personality characteristics (cf. sections 6.4.3 and 6.4.4). The questionnaires that are used (the JPQ and the HSPQ) have been standardized for South African conditions and have high reliability and validity indications (cf. sections 6.4.3.2 and 6.4.4.2).

## **CHAPTER 6**

### **METHOD OF RESEARCH**

#### **6.1 Introduction**

The methodology employed in this study is discussed under four main headings: subjects, instrumentation, data collection procedure and design and analysis. The aim of this chapter is, therefore, to discuss:

- \* the characteristics of the subjects,
- \* the various instruments that are used in this study as well as their validity and reliability,
- \* how the data were collected and administered, and
- \* the designs and statistical analysis techniques used in this study.

#### **6.2 Subjects**

The subjects of this study were all Afrikaans (native language) first year students at the Potchefstroom University taking English as a second language. All the first year students taking ENG 111 (81 students) and ENG 112 (224 students) in 1991 were included in the study. Originally all the students (320) took part in this study. However, those students who were absent when the second battery of tests was administered, as well as those students who failed to complete some of the tests were not included in the study. A total number of 305 students, ranging in age from 18 to 21 years, completed all the tests successfully. A total of 179 females and 126 males took part in the study. The background information on the subjects (e.g. age, sex, course status and major field of study) was obtained by means of administering a biographical questionnaire (cf. Appendix A). ENG 111 refers to the conventional academic English course, whereas ENG 112 refers to the practical English course taken mostly by law students. Owing to the differences between ENG 111 and ENG 112 courses, the subjects did not represent a homogeneous group. It was, therefore, possible to compare the two groups. The comparison of these two groups represents a secondary issue in this study.

In this study the subjects that were selected can be regarded as either a population or a sample. The reasons for this are: Firstly, the group of students can be regarded

as a population, because the entire first year group was included in the study. It is, therefore, possible to draw conclusions about this group of students. Secondly, the subjects can be regarded as a sample, because the first year students (ENG 111 and ENG 112) chosen for this study represent a typical first year intake of students taking English at the Potchefstroom University. The 1991 first year group was chosen at random from first-year English groups.

### **6.3 Variables**

The independent (predictor) variables are: Field Independence/Dependence (FI/D); Language Learning Strategies (LLSs); and Personality Types/Traits (PT).

The dependent (criterion) variable in this study is English Second Language (ESL) proficiency.

### **6.4 Instrumentation**

Five paper-and-pencil instruments were used in this study:

- (1) The Gottschaldt Figures Test (GFT) for determining field independence/dependence,
- (2) The Strategy Inventory for Language Learning (SILL), a self-report survey of preferred language learning strategies,
- (3) The Jung Personality Questionnaire (JPQ) for personality type,
- (4) The High School Personality Questionnaire (HSPQ) for a variety of personality traits, and
- (5) The Test of English as a Foreign Language (TOEFL) for determining English Second Language (ESL) proficiency.

In the following sections each instrument is described briefly.

## 6.4.1 The Gottschaldt Figures Test

### 6.4.1.1 Introduction

The Gottschaldt Figures Test is a test of analytical ability in which the student is required to find embedded figures in more complex diagrams. The student's ability to find the simple figures without becoming distracted by the complex figure indicates the extent to which he/she is field independent.

### 6.4.1.2 Validity and Reliability

The Gottschaldt Figures Test has been standardized by the HSRC and is considered suitable for Standard 8 and higher. The test statistics of the Gottschaldt Figures Test were obtained during a project conducted by the HSRC in 1980, 1981 and 1983 (cf. Table 4).

**Table 4: Test Statistics of the Gottschaldt Figures Test**

Number of items in test	45
Mean ( $\bar{X}$ ) score	11,71
Mean ( $\bar{X}$ ) age	19,58
Number of subjects (N)	369
Standard Deviation (SD)	4,68
Obtained range	2-28
Reliability Coefficient	KR <sub>21</sub> = 0,622 *KR <sub>21</sub> (corrected) = 0,793.

\* Kuder-Richardson Formula 21 (corrected with Tucker's correction for uniform distribution).

The reliability coefficient ( $r=0,79$ ) obtained seems to indicate that the GFT is a reliable test. The question now arises: What does it test? When doing the GFT, subjects are required to use their FI style to find the simple figures in the more complex ones. Some subjects have a greater ability to use their FI style to perform this task; they get high scores on the test. However, they are never called upon to use a FD style and a measure of the extent to which they are FD is, therefore, not available. According to Chapelle and Roberts (1986:42) it is inappropriate to label a lack of FI as FD (i.e. a low score on the GFT). It may, therefore, not be possible to make claims about the relationship between FD and SLA. It seems as if the GFT

can be regarded as a relatively valid test for assessing field independence, but not field dependence.

#### **6.4.1.3 Method of Scoring**

The Gottschaldt Figures Test is scored by means of counting the number of correct answers (raw score) obtained by each student. The raw score is converted to a stanine score, in order to make the statistical analysis easier. Students who obtain a score ranging from 6-9 on the stanine scale are considered to be field independent, while students who obtain a score ranging from 1-4 on the stanine scale are considered to be "field dependent" (lack field independence) (cf. section 6.4.1.2). Students who obtain a stanine of 5 are considered to be a little of both.

### **6.4.2 The Strategy Inventory for Language Learning**

#### **6.4.2.1 Introduction**

The SILL is a Likert-scaled, self-report instrument which assesses the frequency with which the respondent uses a variety of different strategies for learning a second language. A typical SILL item asks the respondent to indicate the frequency of use (**almost always to almost never**, on a five-point scale) of a given strategy. Strategy descriptions on the SILL were drawn from a comprehensive taxonomy (cf. Oxford, 1985:1-6) of LLSs that systematically cover the four language skill areas of listening, reading, speaking and writing.

#### **6.4.2.2 Validity and Reliability**

The SILL was field tested at the Defense Language Institute (DLI) in Monterey, California in November 1985. The total number of participants was 483. The participants were asked to indicate the frequency with which they used strategies (cf. sections 6.4.2.1 and 6.4.2.3). A factor analysis of the student responses was conducted to determine which factor patterns and item-on-factor loadings existed in the data. Criteria for retaining factors included: a minimum eigenvalue (characteristic root) of 1; a maximum of 10 factors; and an 80% proportion of variance accounted for by the factors (cf. Oxford, 1986:20-34). According to Oxford (1986:26) the results of the factor analysis support the construct validity of the survey.

Oxford and an independent language expert and teacher of Spanish, Mildred Cuevas, conducted a content validity assessment of the SILL. They concluded that the SILL adequately and clearly represented the range of potential strategies.

Concurrent, and to some extent construct, validity can be assumed, based on the demonstration of strong relationships between SILL factors and self-ratings of language proficiency and language motivation, as reported in Oxford and Nyikos (1989:291-300). Additional evidence supporting validity is found in a study by Ehrman and Oxford (1989:1-13), in which more highly trained linguists, in contrast to less highly trained linguists, predictably reported significantly more frequent and more wide-ranging use of strategies on the SILL.

The reliability of the SILL was assessed using Cronbach's alpha on the field test data. Oxford (1986:31) points out that: "Cronbach's alpha is the most popular 'internal consistency reliability estimation' method". The internal consistency reliability was 0,95 based on the DLI field test sample, and 0,96 based on a 1200-person university sample (Oxford & Nyikos, 1989:291-300).

#### **6.4.2.3 Method of Scoring**

The Strategy Inventory for Language Learning (SILL) (version 7.0; ESL) is divided into six parts. Each part represents a group of strategies:

Part A: Remembering more effectively (Memory strategies)

Part B: Using all your mental processes (Cognitive strategies)

Part C: Compensating for missing knowledge (Compensation strategies)

Part D: Organizing and evaluating your learning (Metacognitive strategies)

Part E: Managing your emotions (Affective strategies)

Part F: Learning with others (Social strategies) (cf. sections 4.4.4.1 and 4.4.4.3).

Students answer in terms of how well a certain statement describes them. For example, a typical statement would be: "I use rhymes to remember new English words". The student must then choose one of the following:

1. Never or almost never true of me

2. Usually not true of me
3. Somewhat true of me
4. Usually true of me
5. Always or almost always true of me.

Each of the six parts is then summed to get the total for each part. The sum of each part is then divided by the number of items contained in each part (e.g. Part A - 9) in order to get the students' average use of that particular group of strategies. In order to get an overall strategy use average the **sums** for the different parts of the SILL are added up and then divided by 50.

Table 5 gives an indication of the means by which the subjects can assess the frequency of their strategy use.

**Table 5: A Strategy Use Guide**

High	Always or almost always used	4,5 to 5,0
	Usually used	3,5 to 4,4
Medium	Sometimes used	2,5 to 3,4
Low	Usually not used	1,5 to 2,4
	Never or almost never used	1,0 to 1,4

(cf. Oxford, 1990:300).

## 6.4.3 The Jung Personality Questionnaire

### 6.4.3.1 Introduction

The Jung Personality Questionnaire (JPQ) was constructed in order to give a delineation of an individual's personality structure in terms of Jung's theory of personality. Jung's personality typology entails his concepts of the **attitudes** of extroversion and introversion and the psychological **functions** of thinking, feeling, sensing and intuiting.

According to Nordby and Hall (1974:101) an **extroverted** person is oriented toward the external, objective world; such a person lives "outside" himself. An **introverted** person, on the other hand, lives "within" himself. **Thinking** consists of relating ideas to each other in order to arrive at a general concept or solution to a problem. It is an intellectual function that aims to understand things. **Feeling** is an evaluative function. It either accepts or rejects an idea on the basis of whether the idea arouses a pleasant or an unpleasant feeling. Jung uses the term **sensation** to indicate sense perception, which comprises all conscious experience produced by stimulation of the sense-organs - sight, sound, smell, taste and touch. Intuition is an experience which is immediately given rather than produced by thinking or feeling. **Intuition** differs from sensation because the person who has an intuition does not know where it comes from or how it originates. It appears "out of the blue". In the rational functions (thinking and feeling) **judgment** is used to arrive at a decision. In the irrational functions some kind of **perception** is used, a sensory perception (sensation) or an inner, unconscious perception (intuition). The terms judgment and perception are, therefore, used to distinguish between the rational and irrational functions.

The JPQ contains four different scales:

- (i) Extroversion-Introversion (EI)
- (ii) Thinking-Feeling (TF)
- (iii) Sensation-Intuition (SN)
- (iv) Judgment-Perception (JP)

The first scale (EI) measures which of these two attitudes (extroversion/introversion) is more strongly developed in the individual's consciousness and determines the relative strength of that attitude in the conscious mind. In the same way the second scale (TF) indicates the relative strength of the individual's stronger rational function and the third scale (SN) provides a score on the irrational functions. The fourth scale (JP) compares the relative strength of the stronger rational function with the stronger irrational function in order to indicate which one of these is the dominant psychological function in the personality composition.

#### 6.4.3.2 Validity and Reliability

The Jung Personality Questionnaire is criterion-referenced. It was administered (by the HSRC) to a sample of Standard 7, 8 and 10 pupils in the Republic of South Africa in May 1980. A total number of 1687 boys and 1697 girls took part in the study. The reliability coefficients ( $KR_{20}$ ) for the different standards are given in Table 6.

**Table 6: Reliability Coefficients of the JPQ**

	Std 7B	Std 7G	Std 8B	Std 8G	Std 10B	Std 10G
EI	0,814	0,833	0,842	0,867	0,871	0,886
TF	0,773	0,824	0,826	0,841	0,834	0,862
SN	0,811	0,822	0,837	0,852	0,844	0,882
JP	0,778	0,788	0,796	0,819	0,815	0,833

(cf. du Toit, 1983:18-20).

The high reliability coefficients (e.g. 0,886) that were obtained indicate that the JPQ can be regarded as a reliable instrument for assessing personality structure in the framework of Jung's typology.

#### 6.4.3.3 Method of Scoring

The JPQ is scored by placing the scoring stencil (obtained from the HSRC) on the answer sheet according to the directions on the stencil. At the bottom of each answer sheet there is a square which has been divided into two rectangles. Scores for each

scale (EI, TF, SN and JP) are written in the relevant top rectangle below the column of numbers.

The raw score for each scale is converted to an eleven-point score in the following way:

- (i) - divide the raw score by 4
- (ii) - divide the raw score by 4
- (iii) - divide the raw score by 4
- (iv) - divide the raw score by 3.

All raw scores are converted to eleven-point final score scales, ranging from 0-10. The converted score is written in the lower rectangle of each square. A score of four and a half to five and a half on this scale may be regarded as average; in such an instance it would seem that the two opposing attributes of the particular variable are more or less equally strongly developed in the person's conscious mind. For example, on the EI scale, a person scoring 5 points would be classified neither as an extrovert nor as an introvert, but rather as an ambivert. In general, a score lower than one and a half and higher than eight and a half would seem to indicate that the person has developed one of the two opposing attributes to the extreme in his conscious mind.

#### **6.4.4 The High School Personality Questionnaire**

##### **6.4.4.1 Introduction**

The HSPQ includes all the more adequately research-demonstrated dimensions of personality from the general personality sphere. It aims at giving the maximum information in the shortest time about the greatest number of dimensions of personality. The test measures fourteen factorially independent personality dimensions. Each factor is presented as a bi-polar continuum of which the two extreme poles are described, viz the left-hand pole (representing a sten score of 1 to 3) and the right-hand pole (representing a sten score of 8 to 10).

In Table 7 the bi-polar dimensions of the fourteen primary personality factors are given.

**Table 7: Bi-Polar Dimensions of the HSPQ**

Factor A	Reserved (-)	Warmhearted (+)
Factor B	Less Intelligent	More Intelligent
Factor C	Affected by Feelings	Emotionally stable
Factor D	Phlegmatic	Excitable
Factor E	Submissive	Dominant
Factor F	Sober	Enthusiastic
Factor G	Expedient	Conscientious
Factor H	Shy	Adventurous
Factor I	Tough-Minded	Tender-Minded
Factor J	Zestful	Circumspectly
		Individualistic
Factor 0	Self-Assured	Apprehensive
Factor Q2	Sociably Group-Dependent	Self-sufficient
Factor Q3	Uncontrolled	Controlled
Factor Q4	Relaxed	Tense

Note: (-) = low stens (1, 2, 3)

(+) = high stens (8, 9, 10).

(cf. HSRC, 1981:9-19).

#### **6.4.4.2 Validity and Reliability**

The HSPQ was adapted for use in the Republic of South Africa by the Institute for Psychometric Research of the Human Sciences Research Council. The reliability coefficients for Form B, which was used in this study, are given in Table 8. The reliability coefficients (retesting after one week) are given for the Afrikaans speaking 18 year old boys and girls who formed part of the sample on which the HSPQ was standardized. The focus is on the 18 year olds because they represent the same age as the subjects that were used in this study.

**Table 8: Reliability Coefficients of the HSPQ (Form B)****HSPQ Personality Factors**

A	B	C	D	E	F	G	H	I	J	O	Q2	Q3	Q4
0,90	0,79	0,61	0,82	0,71	0,87	0,88	0,84	0,90	0,88	0,82	0,76	0,77	0,74

(cf. HSRC, 1981:27).

Validity coefficients (for Afrikaans pupils) derived from equivalence coefficients are given in Table 9.

**Table 9: Validity Coefficients Derived from Equivalence Coefficients (HSPQ)****HSPQ Personality Factors**

A	B	C	D	E	F	G	H	I	J	O	Q2	Q3	Q4
0,74	0,77	0,79	0,78	0,64	0,72	0,72	0,80	0,81	0,60	0,73	0,63	0,64	0,74

(cf. HSRC, 1981:28).

The high reliability and validity coefficients (e.g. 0,90 and 0,81) obtained for the HSPQ (Form B) indicate that it can be regarded as a reliable and valid instrument for assessing various personality traits.

**6.4.4.3 Method of Scoring**

The answer sheet for manual scoring is scored by using two hand stencil keys. All the necessary instructions for applying the hand stencil key to obtain raw scores for the fourteen factors are printed on the key itself. The raw scores are then converted to stems (i.e. a standard ten point scale) by reading the relevant score from a conversion table supplied in the manual for the HSPQ (cf. HSRC, 1981:30-41).

**6.4.5 The Test of English as a Foreign Language (TOEFL)****6.4.5.1 Introduction**

The TOEFL test is an internationally administered, standardized, multiple-choice test. The purpose of the TOEFL test is to determine the English proficiency of

people whose native language is not English. TOEFL contains 150 multiple-choice questions and requires about 105 minutes of testing time. The multiple-choice format was chosen primarily to ensure reliability of results through standardization of administration and to eliminate the need for reliance on the subjective judgments of raters (Educational Testing Service, 1989:6). A test booklet consisting of a multiple-choice four option format and a separate answer sheet are used with all sections. The test consists of three sections that are separately timed: Listening comprehension, Structure and Written expression and Vocabulary and Reading comprehension. All answers are computer-scored.

The first section of the TOEFL is listening comprehension, which measures the ability to understand English. The common language problems tested include vocabulary that is frequently used in spoken English, structures that are used in spoken English, and sound and intonation distinctions that have proven to be difficult for nonnative speakers. The instructions and stimuli for the listening comprehension section are on audio tape. Section two, structure and written expression, is divided into two parts and assesses mastery of important structural and grammatical points in formal written English. The first group of questions in this section require the examinee to choose the word or phrase from the four responses provided that best completes an incomplete sentence. In the second part of this section, the examinee must choose the word or phrase in a given sentence that would not be acceptable in formal written English. The topics of the sentences are of a general nature so that individuals in specific fields of study or from specific national or linguistic groups have no particular advantage. According to the Educational Testing Service (1989:7) this section of the test has shown a consistently high correlation with writing ability. The third section, vocabulary and reading comprehension, measures the ability to understand nontechnical reading material and the contextual meaning of words; it is divided into two parts. Each reading comprehension passage is followed by a series of questions about the main and secondary ideas of the passage. For each vocabulary question, the examinee must choose the word or phrase that would best preserve the meaning of a given sentence if it were substituted for the underlined word(s) in that sentence.

#### **6.4.5.2 Validity and Reliability**

The TOEFL test has undergone various reliability analyses (e.g. Educational Testing Service, 1976a; 1976b) which suggest that the test will produce consistent

scores ( $r=0,96$  for total scores,  $N=215$ ). Stevenson (1987:80) states that the average reliabilities for the TOEFL test (administered in 1981-1982) are 0,89, 0,87, and 0,89 for the three sections, and 0,95 for the total score. It seems as if the reliability estimates tend to cluster around or above the 0,90 level. The purpose of a study conducted by Hosley and Meredith (1979:209-217) was to initiate a validation study of the content of the TOEFL by examining some of its inter- and intra-test correlates. Hosley and Meredith (1979:212) found intra-test correlates between distinct TOEFL subtests which varied from  $r=0,45$  to  $r=0,73$ ,  $p < 0,001$ . With regard to inter-test correlation, correlations varied from  $r=0,36$  to  $r=0,79$  between TOEFL subtests and CELT (Comprehensive English Language Test) subtests and total scores.

The CELT is a measure of English proficiency for individuals whose native language is not English. It is a multiple-choice format test consisting of three subtests: listening comprehension, structure and vocabulary. Of twenty possible combinations, only two pairs had correlation coefficients lower than  $r=0,50$ . The highest correlations were found between TOEFL listening comprehension and CELT structure subtests ( $r=0,79$ ); TOEFL structure and CELT vocabulary subtests ( $r=0,77$ ); TOEFL vocabulary and CELT listening comprehension subtests ( $r=0,72$ ); and TOEFL writing ability and CELT listening comprehension ( $r=0,74$ ) and vocabulary subtests ( $r=0,71$ ). Correlations of total scores for the two tests resulted in a moderately high correlation coefficient ( $r=0,64$ ). The correlation coefficients indicate that the two tests have considerable overlap (41% of the variance, as determined by the coefficient of determination, of total scores can be accounted for by this commonality). Validity evidence has also been demonstrated by Pack (1972:1-8) who found moderate positive correlations ( $r=0,45$  to  $r=0,66$ ) between TOEFL scores and Michigan Test scores. Stevenson (1987:81) states that: "It should be noted that TOEFL, much more than any other test of a similar type, has been most conscientious in attempting to demonstrate that it measures all that it purports to measure". It is clear that the reliability and validity estimates for the TOEFL are substantial and indicate that the TOEFL is a valid and reliable instrument for assessing language proficiency. TOEFL remains "the best of its breed" (Stevenson, 1987:81).

### 6.4.5.3 Method of Scoring

TOEFL test scores include three section scores and a total score. The number of correct answers for each section of the test is the raw score for that section. In order to determine the scaled scores a conversion table is used (Form 3JTF9, obtainable from ETS). Raw scores are converted to 20-80 scaled scores for the three sections, and 200-800 scaled scores for the total score. The process that is used to convert the raw scores to scaled scores is called "score equating". According to the Educational Testing Service (1989:12) "score equating ensures that test scores are equal for persons of equal proficiency regardless of the difficulty level of the particular test taken". Table 10 shows how the scores are calculated.

**Table 10: Scoring the TOEFL: An Example**

	Section 1	Section 2	Section 3	Sum
Raw score	25	29	37	
Converted score	46	54	50	150
Total TOEFL score				$(150 \times 10) \div 3 = 500$

Each institution determines for itself what scores or ranges of TOEFL scores are acceptable. There is no specific passing or failing score for the TOEFL. The Educational Testing Service (1989:14) has established the following score range:

- 600-800: Individuals at this level are considered proficient in English (excellent).
- 500-599: Most institutions will allow students to do academic work with no restrictions.
- 500-549: Most institutions will allow students to do academic work with no restrictions in fields such as mathematics, science, engineering and fields not requiring high verbal ability.
- 450-499: Many institutions will allow students to do academic work with some supplementary instruction in English.
- 400-449: This level is considered too low to allow students to begin academic work (weak).

## **6.5 Data Collection Procedure**

Data collection was conducted by the researcher, with the cooperation of teaching assistants at the English Department, who helped with the handing out of test material and with the maintenance of discipline. The students were given a biographical questionnaire to complete at the beginning of April 1991 (cf. Appendix A). The tests for the predictor variables were group-administered during scheduled afternoon tutorial periods on the following day. The "predictor tests" were administered in the following order: GFT, HSPQ, SILL and the JPQ. The subjects received uniform instructions on how to fill out the various tests. All the requirements stipulated by the various institutions and persons (ETS, HSRC, Prof. R. Oxford) regarding the testing atmosphere, instructions, materials, et cetera were adhered to during the test administration. The criterion test, TOEFL, was group-administered towards the end of June 1991. All the administrative requirements for this test were also met. The ENG 111 and ENG 112 students were seated in different lecture halls, because of logistical problems with regard to seating space.

Permission to use and administer the various tests was obtained from Professor Rebecca Oxford at the University of Alabama, Tuscaloosa (SILL), the HSRC (GFT, JPQ, HSPQ) and also from the Educational Testing Service (TOEFL).

## **6.6 Design and Analysis**

Correlational and multivariate research designs were used in this study. The data were analysed by means of SAS statistical programmes (SAS Institute Inc, 1988).

Pearson product-moment correlations were used to determine the direction and strength of the relationship between the predictor (independent) variables and the criterion (dependent) variable. Canonical correlations were used to determine the relationship between the independent variables and the different sections of the TOEFL test which functioned as the dependent variables. In essence, for canonical correlations there are two linear combinations, one of the Y variables and one of X variables. These composites are weighted in such a way that the maximum possible correlation is achieved (De Wet et al., 1981:188-192; Brown, 1988:96-98; Seliger & Shohamy, 1989:218-222).

Cohen's (1977:20-27) effect size  $d$  was also used to determine if there was any practically significant differences (cf. section 1.1) in LLS use between ENG 111 and ENG 112 students, males and females and if major field of study and course status had any effect on LLS use. Cohen's (1977:20-27) effect size  $d$  was used to calculate the difference between two means. Cohen uses the following scale for the  $d$  values:

Small effect - 0,2

Medium effect - 0,5

Large effect - 0,8

Cohen's (1977:77-81) effect size  $r$  was used to calculate the correlation between two variables. Cohen uses the following scale for the  $r$  values:

Small effect - 0,1

Medium effect - 0,3

Large effect - 0,5

Cohen's (1977:223-227) effect size  $w$  was used to calculate the relationship between two "categorical" variables. Cohen uses the following scale for the  $w$  values:

Small effect - 0,1

Medium effect - 0,3

Large effect - 0,5

Stepwise multiple regression analyses were also conducted to determine the most effective predictors of the criterion measure. A stepwise multiple regression analysis was conducted separately on each of the independent variables (those that allowed it), namely SILL, JPQ and the HSPQ, using the TOEFL score as the dependent variable. Finally, a stepwise multiple regression analysis was conducted using all the predictor variables and the TOEFL score as the criterion measure. In this method (stepwise multiple regression), a new variable is added at each step. The first variable selected is the one which has the highest correlation with the criterion. Each time a new predictor variable is "stepped in", the new relationship between the criterion and predictor variables is reevaluated in order to determine if the predictor variable(s) already selected still significantly contributes to the relationship when later variables are added (De Wet et al., 1981:240; Seliger & Shohamy, 1989:222-226).

In the discussion of the results in chapter 7 various statistical concepts are used. These concepts are the following (each one is briefly described):

The **F-ratio** is used to determine if there are any statistically significant differences between the means of variables under discussion when comparing more than two groups of students. The F-ratio is presented in the results and the tables as suggested by Thomas and Nelson (1985:132), as for example,  $F(2,12)=10,00$ ,  $p<0,05$ , where the first number between brackets (2) represents the degrees of freedom associated with the numerator, while the second number between brackets (12) represents the degrees of freedom associated with the denominator. The numerator is regarded as true variance, or the real difference between the means. The denominator is considered to be error variance, or variation about the mean (cf. Thomas & Nelson, 1985:128-132). Ten (10,00) is the F-ratio that is obtained by dividing the numerator by the denominator. In this example the F-ratio is significant at the  $p<0,05$  level if the degrees of freedom (df) of the numerator and

denominator are, respectively, used to read it from a statistical table (cf. Thomas & Nelson, 1985:132).

The **alpha level** ( $p < 0,05$ ) refers to the probability of chance occurrence. In the example mentioned above, it would mean that a relationship of this size would be expected less than 5 times in 100 to be due to chance. The alpha level is used to control for a Type I error. The alpha level is usually set at either  $p < 0,05$  or  $p < 0,01$ .

A **t-test** is used to compare the two mean scores of two groups in order to determine if the two means differ reliably from each other (cf. de Wet et al., 1981:212; Thomas & Nelson, 1985:122-125).

In this study various statistical techniques were used to assess the data. In section 6.2 it was stated that the subjects could be regarded as either a sample or a population. This unusual situation made it possible to use more than one statistical concept to explain the results. For example, the alpha level is mostly used to indicate the **statistical** significance of a relationship between variables, or a difference between group means, whereas Cohen's effect size is usually used to indicate if a relationship, or difference can be considered to be **practically** significant. It seems as if the use of both these statistical concepts can be important, because not only do these concepts give an indication of the significance of a particular relationship, or difference, but if researchers/teachers consider applying the findings of a particular study to the teaching in their classrooms, it would be important for them to know if the relationship, or difference, is also practically significant. For example, if a practically significant relationship is found between LLS use and ESL proficiency, teachers might be well advised to incorporate LLS training in their classroom instruction. However, if the relationship is only statistically significant the effort to teach these strategies might not be worthwhile.

## 6.7 Conclusion

According to researchers (cf. Abraham & Vann, 1987; Bachman, 1990) the methodology of a study is very important, because many studies have "failed" as a result of methodological failure (e.g. inappropriate use of statistical techniques). In this chapter various measuring instruments were discussed and their reliability and validity for assessing specific learner variables were established. Various statistical

techniques, to be used in this study, were discussed briefly, in order to facilitate the logical explanation of the results in chapter 7.

## **CHAPTER 7**

### **DISCUSSION OF RESULTS**

#### **7.1 Introduction**

This chapter is devoted to the presentation and discussion of the analysed data. The aim with this chapter is to attempt to answer the questions posed in chapter 1:

- \* Is there a statistically significant as well as a practically significant relationship between FI/D and ESL proficiency?
- \* Is there a statistically significant as well as a practically significant relationship between LLSs and ESL proficiency?
- \* Is there a statistically significant as well as a practically significant relationship between PT and ESL proficiency?

The purpose is, therefore, to determine which variable(s) is the most significant predictor(s) of ESL proficiency.

Relevant questions regarding LLS use (cf. section 1.1) are also considered:

- \* Is there a practically significant difference in LLS use between ENG 111 and ENG 112 students?
- \* Is there a practically significant difference in LLS use between males and females?
- \* Does course status and major field have a practically significant influence on LLS use?

In order to ensure a logical order of discussion the data are discussed under the following headings: A proficiency profile, field independence/dependence, language learning strategies and personality types/traits. The questions concerning LLS use are discussed under the language learning strategies section (cf. section 7.4).

#### **7.2 A Proficiency Profile**

The comparison between the ENG 111 and ENG 112 students represents a secondary issue in this study (cf. section 6.2). In order to make a comparison it is

necessary to determine the proficiency levels of each group. Table 11 gives an indication of the number as well as the percentage of students who obtained A-F symbols in Standard 10.

**Table 11: Symbols Obtained by ENG 111 and ENG 112 Students in Std. 10**

Group	Symbols					
	A	B	C	D	E	F
ENG 111 (N=81)	21 (25,92%)	33 (40,74%)	27 (33,33%)			
ENG 112 (N=224)	11 (4,91%)	32 (14,28%)	91 (40,62%)	70 (31,25%)	18 (8,03%)	2 (0,90%)

A highly significant relationship ( $r=0,83$ ,  $p<0,0001$ ) was established between the symbol the students obtained in Standard 10 and their performance on the TOEFL test. It can, therefore, be assumed that those students with A and B symbols performed relatively better on the TOEFL test than those students with D, E and F symbols. Table 11 indicates that 66,66% of the students in ENG 111 obtained A and B symbols, while no student obtained a symbol lower than C. In the ENG 112 group, however, 19,19% of the students obtained A and B symbols, while 40,18% obtained symbols lower than C.

If the symbols are compared to the TOEFL score range (cf. section 6.4.5.3), those students who obtained A and B symbols fall into the categories ranging from approximately 500-800, whereas those students who obtained D, E and F symbols fall into the categories 400-450. Table 12 indicates the method of calculation.

**Table 12: Symbols vs TOEFL Score Range**

Sec. 1 (TOEFL)	Sec 2 (TOEFL)	Sec. 3 (TOEFL)	Sum	Symbol/Score Range
41 (R.S.)	31	51	= 123	82% (A)
58 (C.S.)	56	59	= 173	57% (S.R.)
36	26	46	= 108	72% (B)
54	59	55	= 159	53%
31	21	41	= 93	62% (C)
50	44	52	= 146	48%
26	16	36	= 78	52% (D)
47	39	49	= 135	45%
21	11	31	= 63	42% (E)
44	33	46	= 123	41%

Note: R.S. = Raw Score

C.S. = Converted Score (cf. section 6.4.5.3)

A-E = Symbols (x 100 ÷ 150)

S.R. = TOEFL Score Range (x 10 ÷ 3) (cf. section 6.4.5.3)

It can, therefore, be assumed that the ENG 111 students are relatively better language learners (i.e. more proficient) than the ENG 112 students.

### 7.3 Field Independence/Dependence

The principal question in this section concerns the general relationship between the students' degree of FI/D and their performance on the TOEFL test, a measure of their ESL proficiency. Pearson product-moment correlations were calculated to determine the direction and strength of the linear relationship between student FI/D, as measured by the GFT, and performance on the TOEFL test. The results appear in Table 13. The correlations between the GFT scores and the TOEFL scores (total and subparts) were all positive, but very low, though with the large number of students involved they were significant ( $p < 0,01$  and  $p < 0,05$ ). This finding is consistent with the extensive literature on relationships between measures of FI/D and scores from various language proficiency tests (cf. section 3.4). In a study conducted by Witkin et al. (1977b:201) the GEFT scores (Group Embedded

**Table 13 : Pearson Product-Moment Correlations between the Predictor Variables and the Criterion Measure.**

Predictor Variables	Criterion Measure (TOEFL)											
	Total		Section 1		Section 2		Section 3					
	r	Significance	r	Significance	r	Significance	r	Significance	r	Significance	r	Significance
GFT	0,15	**	+	0,11	*	+	0,14	**	+	0,15	**	+
JPQ (EI)	0,00			-0,00			0,04			-0,03		
(TF)	-0,08			-0,06			-0,08			-0,07		
(SN)	-0,02			-0,03			-0,04			0,01		
(JP)	0,01			0,05			0,01			-0,02		
SILL A	0,01			0,03			0,00			0,02		
B	0,23	****	+	0,20	***	+	0,22	****	+	0,22	****	+
C	0,20	***	+	0,16	**	+	0,12			0,30	****	+
D	0,62	****	+++	0,55	****	+++	0,54	****	+++	0,64	****	+++
E	0,14	**	+	0,16	**	+	0,09			0,15	**	+
F	0,09			0,08			0,09			0,08		
SILL Average	0,33	****	++	0,28	****	+	0,28	****	+	0,37	****	++
HSPQ A	0,09			0,04			0,11			0,06		
B	0,30	****	+	0,32	****	++	0,21	***	+	0,31	****	++
C	0,00			0,04			-0,00			-0,00		
D	0,03			0,00			0,03			0,03		
E	-0,04			-0,03			-0,04			-0,05		
F	-0,09			-0,12	*	+	-0,04			-0,12	*	+
G	0,08			0,11	*	+	0,04			0,10		
H	0,06			0,07			0,05			0,03		
I	0,18	***	+	0,17	**	+	0,13	**	+	0,21	***	+
J	0,08			0,07			0,02			0,15	**	+
O	0,06			0,02			0,07			0,08		
Q <sub>2</sub>	-0,03			-0,02			-0,04			-0,03		
Q <sub>3</sub>	0,00			0,02			-0,01			-0,00		
Q <sub>4</sub>	-0,01			-0,04			0,00			-0,01		

Statistical Significance

- \* P < 0,05
- \*\* P < 0,01
- \*\*\* P < 0,001
- \*\*\*\* P < 0,0001

Practical Significance

- + Small Effect r = 0,01
- ++ Medium Effect r = 0,03
- +++ Large Effect r = 0,05

Figures Test) showed little relation to either high school grade point averages (symbols) ( $r=0,01$ ;  $r=0,03$ ) or college grade point averages (percentages obtained) ( $r=0,10$ ,  $p<0,05$ ;  $r=0,05$ ) for men and women, respectively. Cohen's (1977:77-81) effect size  $r$  also indicated that the correlation between FI/D and the TOEFL scores could not be regarded as practically significant, because only a small effect size was established (cf. section 6.6; Table 13).

One problem inherent in correlational analysis is that statistically significant correlations may be found when the observed association is actually rather weak. Another difficulty is that the existence of a correlational relationship does not necessarily imply a cause-and-effect relationship between the two variables; rather, it attests to an associational link and may furnish clues to the causes. In this case, the existence of significant and positive correlations is interpreted as an indication that the cognitive restructuring abilities linked to FI are perhaps being utilized to promote successful performance on the TOEFL test (a higher GFT score indicates a relatively greater degree of FI). Among the university students who formed the "sample/population" group in this study, the results indicated that field independence, or cognitive restructuring ability, was related to better performance on the TOEFL test,  $p<0,05$  (cf. Table 14). The difference between the FI- and FD group was assessed by means of a t-test (cf. section 6.6).

**Table 14: Student FI/D and their Performance on the TOEFL Test**

Predictor Variable	N	$\bar{X}$	SD	Min.	Max.
GFT >6 (FI)	28	519,16	36,54	480,00	596,67
GFT <4 (FD)	241	504,09	35,55	413,33	610,00

$p<0,05$

$d = 0,41$

However, as mentioned in section 6.4.1.2, a low score on the GFT does not necessarily indicate a high degree of field dependence. It might be more plausible to consider the possibility, as does Brown (1987:87), that field independence/dependence is contextualized and variable. Brown (1987:87) states that: "Logically and observationally, field independence/dependence is quite variable within one person". Assuming the "cognitive flexibility" suggested by Brown (1987:88), each individual is capable of using both FI and FD styles to some degree.

The style he/she uses depends on the task at hand, as well as the degree to which he/she is able to respond to it appropriately (i.e. be flexible). According to Brown (1987:87-88) it is a misconception to view field independence and field dependence in complementary distribution; some persons might be both highly FI and highly FD as contexts vary. In Second Language Acquisition, then, it may be incorrect to assume that learners should be either field independent or field dependent; it is more likely that persons have general inclinations, but, given certain contexts, can exercise a sufficient degree of an appropriate style.

In section 6.2 it was mentioned that ENG 111 refers to the conventional academic English course. The content of this course involves analysis and attention to detail. Students are very often required to display analytical abilities (e.g. in a cloze test or the analysis of a literary work). On the other hand, the ENG 112 practical course tends to focus more on natural communication. One of the aims of the course is to improve the communicative competence of the students, in order to equip them for their vocational choices (e.g. law). The results indicated that 19,11% of the students in the ENG 111 course were relatively field independent, whereas, only 7,4% of the students in the ENG 112 course were relatively field independent. This difference was statistically significant ( $p < 0,01$ ), but not practically significant, because only a small effect size was established ( $w = 0,16$ ) (cf. Table 15; section 6.6).

**Table 15: The Number of FI and FD Students in ENG 111 and ENG 112**

Course	N	FI	FD
ENG 111	68	13 (19,11%) *	55 (80,88%)
ENG 112	201	15 (7,46%)	186 (92,53%)

$p < 0,01$

\*  $w = 0,16$

It, therefore, seems as if the students in the ENG 111 course have to have a certain degree of FI in order to successfully complete the various analytical tasks required in the course, whereas the cluster of characteristics associated with FD (cf. section 3.2.2) are required in the ENG 112 course where the focus is more on communicative ability.

#### 7.4 Language Learning Strategies

According to researchers (e.g. Bialystok & Fröhlich, 1978; Oxford & Nyikos, 1989; O'Malley & Chamot, 1990) the use of language learning strategies is an important way to increase language proficiency. Bialystok and Fröhlich (1978:334) state that "strategies are by definition trainable". Thus, any language learner can be expected to improve his language proficiency by increasing his use of language learning strategies. The aim with this section is, therefore, to determine the relationship between the students' LLS use and their ESL proficiency, as well as to establish if language learning strategies are in fact important predictors of ESL proficiency.

Pearson product-moment correlations were calculated to determine the direction and strength of the relationship between the students' LLS use and their ESL proficiency, as measured by the TOEFL test. The results appear in Table 13 (cf. page 105). The correlations between the SILL scores and the TOEFL scores were positive and highly significant. This finding is consistent with the literature that has investigated the relationship between LLS use and second language proficiency (cf. Bialystok, 1981; O'Malley et al., 1985a; 1985b; Abraham & Vann, 1987). The strongest correlation ( $r=0,64$ ,  $p<0,0001$ ) was obtained between SILL (D) ("organizing and evaluating your learning" - metacognitive strategies) (cf. section 6.4.2.3) and the vocabulary and reading comprehension section (section 3) of the TOEFL test. However, the correlations between SILL (D) and the total TOEFL score, as well as the other sub-sections of the TOEFL test, were all strong and highly significant (cf. Table 13). The next strongest relationship ( $r=0,23$ ,  $p<0,0001$ ) was found between SILL (B) ("using your mental processes" - cognitive strategies) (cf. section 6.4.2.3) and the TOEFL test.

In addition to the Pearson product-moment correlations, canonical correlations were also computed to assess the relationship between language learning strategy use and ESL proficiency. A highly significant correlation of  $r=0,73$ , ( $p<0,0001$ ) was found. In addition to the significant correlations, Cohen's (1977:77-81) effect size  $r$  indicated that the correlation between LLS use and ESL proficiency was also practically significant, because in most cases a large effect size (cf. section 6.6) was found (cf. Table 13). The correlations, therefore, indicated that the relationship between LLS use and ESL proficiency was significant as well as practically significant.

Table 16 shows the significant ( $p < 0,0001$ ) difference in LLS use between ENG 111 and ENG 112 students. This was assessed by means of a t-test (cf. section 6.6). An effect size of  $d = 0,87$  was obtained, indicating a practically significant (cf. section 6.6) difference in LLS use between these two groups of students. It, therefore, seems as if the more proficient language learners (ENG 111 students) (cf. section 7.2) are better users of LLSs than the less proficient language learners (ENG 112 students).

**Table 16: The Difference in LLS Use between ENG 111 and ENG 112 Students**

Course	N	$\bar{X}$	SD	Min.	Max.
ENG 111	81	3,24	0,36	2,36	3,88
ENG 112	224	2,88	0,42	1,80	4,18

$p < 0,0001$

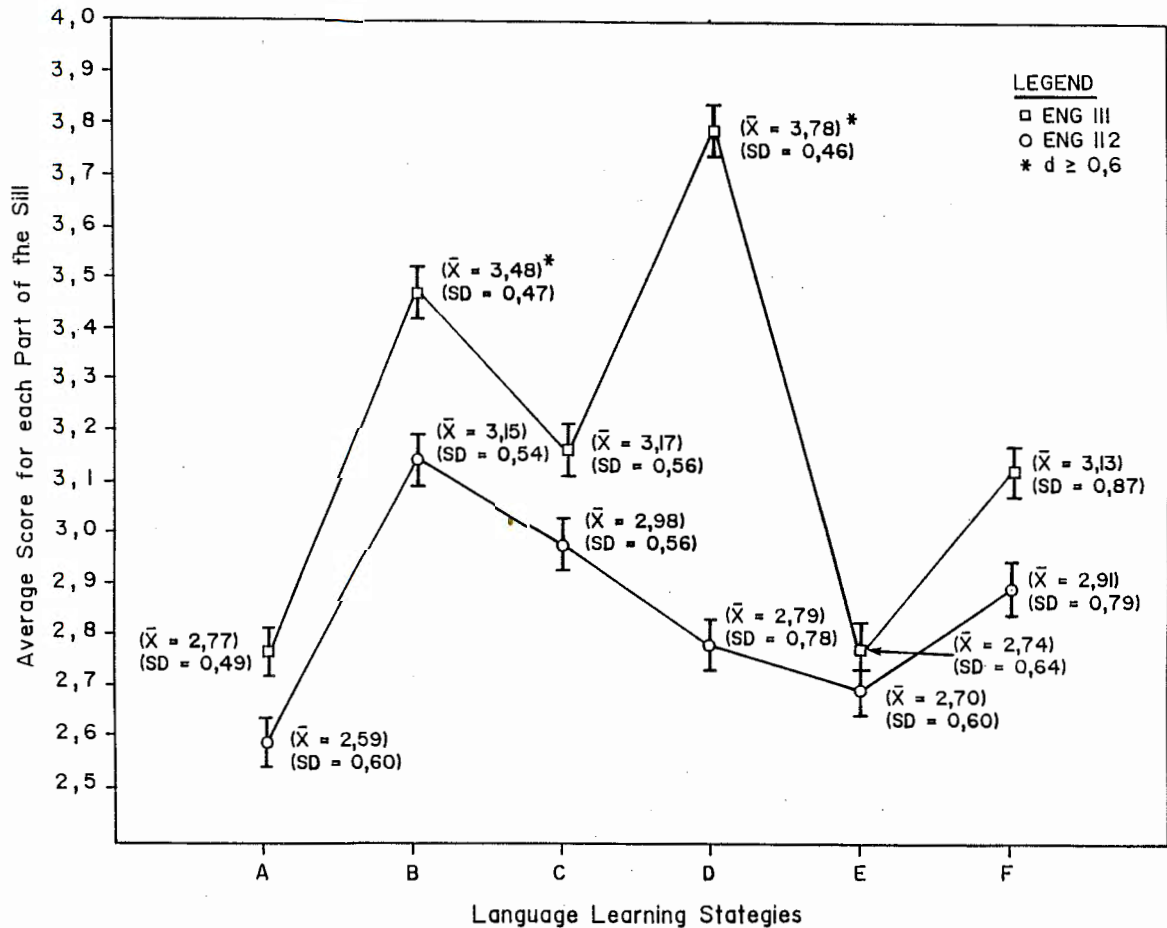
$d = 0,87$

Table 17 shows the frequency of strategy use by ENG 111 and ENG 112 students. The ENG 111 students used the following strategies far more frequently than the ENG 112 students (high category): "Using your mental processes" (56,79% vs 29,91%), "compensating for missing knowledge" (29,63% vs 21,43%), and "organizing and evaluating your learning" (85,19% vs 19,64%). These figures were obtained by adding the percentages (e.g.  $82,72 + 2,47 = 85,19\%$ ) in the two respective high categories (cf. Table 17). In brief, these findings indicate that the ENG 111 students frequently reported employing strategies likely to be useful in a traditional structure-oriented English second language instructional environment geared toward tests and assignments (i.e. academic study requiring analytical abilities). With regard to communicative involvement the ENG 112 students used the social strategies ("learning with others") (high category) more frequently (45,68%) than the ENG 111 students (26,34%). This might be as a result of the greater emphasis that is placed on communicative competence in the ENG 112 course. Figure 10 shows a profile of LLS use by the ENG 111 and ENG 112 students. The mean scores in this profile indicated that the ENG 111 students used all of the strategies more often than did the ENG 112 students. However, the ENG 111 and ENG 112 students differed practically significantly ( $d \geq 0,6$ ) on only two strategies, namely, "using all your mental processes" and "organizing and evaluating your learning" (cf. Figure 10).

TABLE 17 : THE FREQUENCY OF STRATEGY USE BY ENG 111 AND ENG 112 STUDENTS

Course	LLSs	LOW		MEDIUM	HIGH	
		Never or almost never used (1-1,5)	Usually not used (1,51-2,5)	Sometimes used (2,51-3,5)	Usually used (3,51-4,5)	Always or almost always used (4,51-5)
ENG 111 (N = 81)	SILL A	3,70	23,46	67,90	4,94	-
	B	-	1,23	41,98	54,32	2,47
	C	-	4,94	65,43	27,16	2,47
	D	-	2,47	12,35	82,72	2,47
	E	1,79	28,13	59,38	10,27	0,45
	F	2,23	28,13	43,30	22,77	3,57
ENG 112 (N = 224)	SILL A	5,36	36,61	52,23	5,80	-
	B	-	11,61	58,48	29,46	0,45
	C	-	18,75	59,82	20,09	1,34
	D	2,23	50,00	28,13	16,96	2,68
	E	4,94	22,22	58,02	13,58	1,23
	F	2,47	17,28	34,57	39,51	6,17

Figure 10 : Profile of the LLS Use of ENG III and ENG II2 Students.



Various variables (e.g. sex, course status, and major field of study) which can have an influence on the use of strategies were also assessed (cf. questions in section 1.1). Table 18 shows the significant difference ( $p < 0,0001$ ) in LLS use between **males** and **females**. This was assessed by means of a t-test (cf. section 6.6). The results indicated that the females used LLSs more often than the males did (cf. section 4.8.3). An effect size of  $d = 0,62$  was obtained, therefore, indicating a medium effect (cf. section 6.6) in the difference in LLS use between males and females.

**Table 18: The Difference in LLS Use between Males and Females**

Sex	N	$\bar{X}$	SD	Min.	Max.
Female	179	3,08	0,41	1,92	4,18
Male	126	2,82	0,42	1,80	3,94

$p < 0,0001$

$d = 0,62$

Table 19 shows the frequency of strategy use by males and females. For example, compared with males, females reported more frequent use (high category) of most strategies, especially the strategy "learning with others", reflecting social interaction. This fact can be related to women's desire for good symbols or results (cf. Oxford & Nyikos, 1989:296) and it reflects a need for social approval (cf. Bardwick, 1971:92). Extensive linguistic research (cf. Bardwick, 1971; Lakoff, 1975; Tannen, 1986) shows that women and men actually use their own native language differently, reflecting the greater social orientation of women. Greater empathy, politeness and concern for others are displayed in women's speech. Women also exhibited greater use of self-management strategies, sometimes called metacognitive strategies ("organizing and evaluating your learning"), which involve setting goals and objectives, planning for a language task, evaluating one's progress, and so on. Research (cf. Kramarae, 1981) has shown that women are known for greater speech self-monitoring than men. However, in this study both male and female use of such strategies appeared to be suppressed by the traditional academic environment of the "classroom" - a setting which promotes and rewards performance on discrete tasks rather than interactive communicative efforts.

TABLE 19 : THE FREQUENCY OF STRATEGY USE BY FEMALES AND MALES

Sex	LLSs	LOW		MEDIUM	HIGH	
		Never or almost never used (1-1,5)	Usually not used (1,51-2,5)	Sometimes used (2,51-3,5)	Usually used (3,51-4,5)	Always or almost always used (4,51-5)
FEMALES (N = 179)	SILL A	1,68	29,05	64,25	5,03	-
	B	-	6,15	51,96	40,78	1,12
	C	-	10,06	61,45	25,70	2,79
	D	-	29,61	25,70	40,78	3,91
	E	1,68	23,46	60,34	13,97	0,56
	F	1,12	20,11	40,22	33,52	5,03
MALES (N = 126)	SILL A	9,52	38,89	45,24	6,35	-
	B	-	12,70	57,14	29,37	0,79
	C	-	22,22	61,11	16,67	-
	D	3,97	48,41	21,43	25,40	0,79
	E	3,97	30,95	57,14	7,14	0,79
	F	3,97	32,54	42,06	18,25	3,17

TABLE 20: THE INFLUENCE OF COURSE STATUS ON THE FREQUENCY OF LLS USE

Status	I.L.Ss	LOW	MEDIUM	HIGH		
		Never or almost never used (1-1,5)	Usually not used (1,51-2,5)	Sometimes used (2,51-3,5)	Usually used (3,51-4,5)	Always or almost always used (4,51-5)
ELECTED	SILL A	6,47	28,78	58,27	6,47	-
	B	-	5,04	49,64	43,17	2,16
	C	-	12,23	64,75	19,42	3,60
	D	0,72	25,18	22,30	49,64	2,16
	E	2,88	24,46	58,99	12,95	0,72
	F	2,88	15,11	43,17	33,09	5,76
REQUIRED	SILL A	3,61	36,75	54,82	4,82	-
	B	-	12,05	57,83	30,12	-
	C	-	17,47	58,43	24,10	-
	D	2,41	47,59	25,30	21,69	3,01
	E	2,41	28,31	59,04	9,64	0,60
	F	1,81	33,73	39,16	22,29	3,01

Clear differences were found for elective versus required **course status** for all the strategies used. For example, the students who elected to enrol for English used the strategy "organizing and evaluating your learning" 51,8% of the time (high category), whereas those students who were taking English as a graduation requirement used it only 24,7% of the time. These figures were obtained by adding the percentages (e.g.  $49,64 + 2,16 = 51,8\%$ ) in the two respective high categories (cf. Table 20, page 114). The differences that were found were significant,  $p < 0,0001$ . This was calculated by means of a t-test (cf section 6.6). However, the differences were not practically significant,  $d = 0,45$  (cf. Table 21; section 6.6).

**Table 21: The Influence of Course Status on LLS Use**

Course Status	N	$\bar{X}$	SD	Min.	Max.
Elected	139	3,08	0,42	1,80	4,18
Required	166	2,89	0,42	1,80	4,12

$p < 0,0001$

$d = 0,45$

Like other studies (e.g. Oxford & Nyikos, 1989:293-296), this one showed that career orientation, reflected here in university **major**, had a significant effect ( $F = (2,250) = 10,22$ ,  $p < 0,0001$ ) on language learning strategy use. Students with different career interests seem to use language learning strategies differently. A follow-up Tukey multiple comparison test indicated that all three groups differed significantly ( $p < 0,05$ ) from each other in terms of LLS use by the students (cf. Table 22).

**Table 22: The Influence of Major Field of Study on LLS Use**

Major Field	N	$\bar{X}$	SD	Min.	Max.	F-ratio, p value	Tukey
B.A. (1)	98	3,16	0,44	1,92	4,18	$F = (2,250) = 10,22$ $p < 0,0001$	1-2*
B.Juris (2)	100	2,93	0,43	1,94	4,12		1-3*
B.Proc. (3)	55	2,78	0,38	1,80	3,58		

\* $p < 0,05$

1 - 2 ( $d = 0,52$ )

1 - 3 ( $d = 0,86$ )

In order to assess the importance of the language learning strategy variable in view of other factors such as the students' FI/D and their personality characteristics, a stepwise multiple regression analysis was done. A summary of the results is shown in Table 23. Approximately 45% of the total variance on the TOEFL test can be explained by language learning strategies. The strategy group "organizing and evaluating your learning" (SILL D), accounted for 41% of the total variance. As a result SILL D had a significant effect on ESL proficiency  $F = (1,303) = 211,80$ ,  $p < 0,0001$ . The only other variables which showed any effect on ESL proficiency were two personality characteristics (HSPQ B and JPQ SN) (cf. sections 6.4.3.1 and 6.4.4.1), but the effect they had was negligible, because together they accounted for less than 1% of the total variance on the TOEFL test. In this study, the results seem to indicate that LLSs are the best predictors of ESL proficiency, especially strategies in the following groups: "organizing and evaluating your learning" (metacognitive), and "managing your emotions" (affective).

## 7.5 Personality Types/Traits

Previous studies that have examined the relationship between personality characteristics and Second Language Acquisition have yielded contradictory findings (cf. section 5.3). The rationale for investigating the role of personality in English second language learning was to establish whether certain personality types/traits might affect the ESL proficiency of Afrikaans first year students. In this study two personality questionnaires (the JPQ and the HSPQ) were used, in order to assess as many types/traits as possible, because of the multi-faceted nature of personality (cf. section 5.2).

Pearson product-moment correlations were computed to determine the direction and strength of the relationship between various personality types/traits and ESL proficiency. The results appear in Table 13 (cf. page 105). The correlations between the JPQ scores and the TOEFL scores were very small and none of the relationships were significant. The correlations between the HSPQ scores and the TOEFL scores were also low, but slightly better than those for the JPQ. The results indicated that factor B of the HSPQ and factor I of the HSPQ (cf. section 6.4.4.1) had the strongest and also the most significant relationship ( $p < 0,0001$  and  $p < 0,01$ ) with ESL proficiency (cf. Table 13). This is consistent with findings in the research literature (cf. Cattell et al., 1980:149). This means that only two out of the fourteen factors correlated significantly with ESL proficiency.

TABLE 23 : MULTIPLE REGRESSION ANALYSIS USING GFT, SILL, JPQ AND HSPQ SCORES AS PREDICTORS OF ESL PROFICIENCY

Criterion Measure	Step	Predictor Variable	Partial R <sup>2</sup>	Multiple R <sup>2</sup>	F-ratio	Significance (p)
TOTAL TOEFL SCORE	1	SILL (D)	0,411	0,411	F = (1,303) = 211,81	P< 0,0001
	2	SILL (E)	0,026	0,438	F = (2,302) = 14,30	P< 0,001
	3	SILL (F)	0,011	0,449	F = (3,301) = 6,08	P< 0,01
	4	HSPQ (B)	0,007	0,456	F = (4,300) = 3,97	P< 0,05
	5	JPQ (SN)	0,004	0,461	F = (5,299) = 2,67	P = 0,10
	6	SILL (B)	0,004	0,465	F = (6,298) = 2,56	P = 0,11
	7	SILL (A)	0,004	0,470	F = (7,297) = 2,76	P = 0,09

Factor B is actually a cognitive component (i.e. intelligence) (cf. section 6.4.4.1).

In addition to the Pearson product-moment correlations, canonical correlations were also computed to assess the relationship between personality types/traits and ESL proficiency. A statistically non-significant correlation of  $r=0,15$  was found between the JPQ scores and the TOEFL scores, whereas a significant correlation of  $r=0,46$ ,  $p<0,0001$  was found between the HSPQ scores and the TOEFL scores. Cohen's (1977:77-81) effect size  $r$  indicated that the correlations between the HSPQ scores and the TOEFL scores only had a small or medium effect (cf. Table 13). Although a medium effect size was established it is important to bear in mind that a correlation of  $r=0,46$  implies a common variance of 21% between the HSPQ scores and the TOEFL scores.

In order to determine the contribution of the HSPQ factors of predicting ESL proficiency a stepwise multiple regression analysis was done. The results appear in Table 24. From these results it is clear that factors B and I played an important role towards the prediction of ESL proficiency and that five factors of the HSPQ accounted for 13% of the total variance on ESL proficiency as determined by the TOEFL test.

An explanation for the lack of stronger relationships between the various personality factors and ESL proficiency could be that personality characteristics alone are not enough to account for much of the variance in English proficiency scores. Rather, a combination of different variables would be more likely to influence a person's success or failure in learning a second language. For this reason the possibility that personality characteristics such as extroversion, assertiveness, adventuresomeness, and so on, can play important roles in the second language acquisition process cannot be discounted and furthermore, numerous personality characteristics have not yet been correlated with ESL proficiency. According to Larsen-Freeman and Long (1991:186) it is conceivable that cultures value personality characteristics differently and that this might affect the way in which personality characteristics influence SLA. This might provide another explanation for why these particular correlations were obtained between the various personality types/traits and ESL proficiency.

TABLE 24 : STEPWISE MULTIPLE REGRESSION ANALYSIS USING HSPQ SCORES AS PREDICTORS OF ESL PROFICIENCY

Criterion Measure	Step	Predictor Variable	Partial R <sup>2</sup>	Multiple R <sup>2</sup>	F-ratio	Significance (p)
TOTAL TOEFL SCORE	1	HSPQ (B)	0,085	0,08	F = (1,303) = 28,45	P< 0,0001
	2	HSPQ (I)	0,023	0,10	F = (2,302) = 8,03	P< 0,01
	3	HSPQ (F)	0,007	0,11	F = (3,301) = 2,51	P< 0,11
	4	HSPQ (A)	0,011	0,12	F = (4,300) = 3,92	P< 0,05
	5	HSPQ (J)	0,008	0,13	F = (5,299) = 3,01	P = 0,08

## 7.6 Conclusion

Given the concern of differential success among second language learners, researchers have attempted to isolate particular learner characteristics which enhance or hinder progress in learning English as a second language. Although learner variables are not yet well understood, the selective study of some of these variables has shown that there are variables, especially language learning strategies, which can have an important as well as a significant influence in predicting ESL proficiency.

With regard to the questions posed in chapter 1 and the beginning of this chapter the results of this study indicate the following:

- \* a statistically significant, but not practically significant, relationship between FI/D and ESL proficiency,
- \* a statistically significant as well as a practically significant relationship between LLSs and ESL proficiency,
- \* a statistically significant, but not practically significant, relationship between only two personality traits and ESL proficiency,
- \* that ENG 111 students used LLSs far more frequently than ENG 112 students and that the ENG 111 students were more proficient language learners than the ENG 112 students,
- \* that females differed significantly from males in their LLS use; females using LLSs more frequently,
- \* that course status had a significant influence on LLS use, and
- \* that major field of study significantly influenced LLS use.

Language learning strategies accounted for approximately 45% of the total variance on the TOEFL test, whereas the contribution of the other variables was much smaller. This seems to indicate that a combination of variables, including FI/D might play a more significant role in predicting ESL proficiency than only one particular variable. It also seems that the proficiency of ESL learners might increase if the number as well as the frequency of the LLSs they use is increased. It was found that the more proficient language learners (ENG 111 students) used all the

strategies far more frequently than the less proficient language learners (ENG 112 students) (cf. section 7.2). There is also an indication that the type of tasks which learners have to complete might necessitate the use of particular LLSs, or learning styles (e.g. FI/D). The findings in this study cannot be considered ultimate answers to SLA questions; instead, they point toward evidence that may help answer some of these questions.

## CHAPTER 8

### CONCLUSION

#### 8.1 Introduction

As more and more variables are found to be influencing ESL proficiency and, consequently the SLA process, it will become increasingly difficult to typify individuals and to classify groups of individuals together. Each person appears to be a unique complex of variables. That English second language learning is a complex process involving intricate interactions among a variety of variables is attested to by the results that have been presented in this study. The purpose of this chapter is to provide a summary of the results obtained in this study as well as to indicate the implications of the results for SLA and L2 teaching. Recommendations for future research are also indicated.

#### 8.2 Hypotheses

With regard to the hypotheses posed in section 1.3 the following conclusions can be drawn:

The results indicate that there is a **statistically significant** relationship ( $p < 0,05$ ) between FI/D, as measured by the GFT, and ESL proficiency, as measured by mean TOEFL scores, although the correlation between the independent variable and the criterion measure is rather small ( $r = 0,15$ ). Even though the relationship is statistically significant it cannot be regarded as practically significant, because only a small effect size  $r$  ( $d = 0,41$ ) was established (cf. section 6.6; Table 13). It is, therefore, possible to accept the first hypothesis posed in section 1.3, while at the same time bearing in mind that the relationship **cannot be regarded as practically significant**.

There is a **statistically significant** relationship ( $r = 0,73$ ,  $p < 0,0001$ ) between LLSs, as measured by the SILL, and ESL proficiency, as measured by mean TOEFL scores. This relationship is also **practically significant**, because a medium to a large effect size  $r$  was established (cf. section 6.6; Table 13). The second hypothesis (cf. section 1.3) can, therefore, be accepted.

There is a **statistically significant** relationship between a very small number of personality traits (HSPQ (B)  $r = 0,30$ ,  $p < 0,0001$ ; HSPQ (I)  $r = 0,18$ ,  $p < 0,001$ ), as

measured by the HSPQ, and ESL proficiency, as measured by mean TOEFL scores. The relationship between the independent variables and the criterion measure cannot be regarded as **practically significant**, because only a small effect size  $r$  was established (cf. section 6.6; Table 13). A stepwise multiple regression analysis, using the HSPQ scores as independent variables and the TOEFL score as the criterion measure, indicated that five HSPQ factors accounted for 13% of the total variance on the TOEFL test. The third hypothesis can, therefore, not be accepted per se, because only two of the eighteen personality types/traits showed a statistically significant relationship with the criterion measure.

A stepwise multiple regression analysis (cf. section 7.4; Table 23) indicated that LLSs accounted for approximately 45% of the total variance on the TOEFL test, while the other variables accounted for approximately 1% of the total variance on the TOEFL test. It is, therefore, possible to accept the fourth hypothesis, because LLSs were the most significant predictors of ESL proficiency.

### **8.3 Field Independence/Dependence and ESL Proficiency**

The case seems well documented that relatively field independent and field dependent students tend to favour different learning approaches (cf. sections 3.2.1 and 3.2.2). In this study a statistically significant, but not a practically significant, relationship was found between FI/D and ESL proficiency, as measured by the TOEFL test, with the FI students performing better on the TOEFL test than the FD students. This finding is consistent with the literature that has studied the relationship between FI/D and various measures of language proficiency (cf. Tucker et al., 1976; Naiman et al., 1978; Bialystok & Fröhlich, 1978; Hansen & Stansfield, 1981).

In this study the ENG 111 students were more FI than the ENG 112 students (cf. Table 15). It was also established that the ENG 111 students were more proficient language learners (cf. section 7.2) than the ENG 112 students. This seems to indicate that FI is related to ESL proficiency, however, it is not possible, as yet, to establish a relationship between FD and ESL proficiency, because a lack of FI (i.e. a low score on the GFT) does not necessarily indicate FD (cf. section 6.4.1.2). According to Brown (1987:87-88) learners might have inclinations towards both styles. Therefore, given certain contexts, learners might be able to exercise a sufficient degree of the appropriate style. It would seem as if some contexts (e.g.

ENG 111 course) require FI styles, while others (e.g. ENG 112 course) require FD styles (cf. section 7.3).

#### **8.4 Language Learning Strategies and ESL Proficiency**

From the findings in this study, which is supported by previous research (Wenden & Rubin, 1987; O'Malley & Chamot, 1990; Oxford, 1990; Vann & Abraham, 1990), it is clear that language learning strategies have a very significant role to play in predicting ESL proficiency. A statistically significant as well as a practically significant relationship was established between LLS use and ESL proficiency (cf. section 7.4). From the results it is also clear that the more proficient language learners (ENG 111 students) use a variety of strategies far more frequently than do less proficient language learners (ENG 112 students) (cf. Tables 16 and 17; Figure 10), but the relationship between strategy use and proficiency is complex. It has been suggested (cf. section 7.4) that the expectations imposed by the standard academic approaches to teaching and testing may limit the learners to try new language learning strategies. It seems as if classroom time devoted to the teaching of language learning strategies may be well spent in that it equips the language learner with a means of increasing his proficiency irrespective of his language learning ability. According to O'Malley et al. (1985a:43) the principal mechanism by which greater learning efficiency materializes with language learning strategies is the active mental processes in which students engage during learning, enabling them to capitalize on available instruction more than less active students unacquainted with the strategies. In this view, teachers can go beyond their traditional role of providing information and create circumstances in which students become acquainted with and apply strategies that are appropriate for the type of learning activities being presented.

In this study various factors (e.g. sex, course status and major field of study) which can influence LLS use were also assessed. The results indicated that there was a statistically significant difference in LLS use between male and female students ( $p < 0,0001$ ), with females using LLSs more frequently than males. This might be as a result of females' desire for good symbols or results. Their more frequent use of social strategies can be explained by their greater social orientation (cf. sections 4.8.3 and 7.4).

Course status influenced LLS use statistically significantly ( $p < 0,0001$ ). Those students who elected to study English used certain LLSs more frequently than those students who were required to take English in order to obtain their degree (cf. Table 20 and section 4.8.5).

Major field of study also influenced LLS use statistically significantly ( $p < 0,0001$ ). People with different career interests seem to use LLSs differently. For example, those students who studied B.A. differed practically significantly in their LLS use from those students who studied B.Juris ( $d = 0,52$ ) and B.Proc ( $d = 0,86$ ).

These results seem to indicate the necessity of studying various factors which influence LLS choice or use, because these factors might indirectly influence their ESL proficiency. The importance of LLSs is indicated by the fact that they accounted for approximately 45% of the total variance on the TOEFL test.

### **8.5 Personality Types/Traits and ESL Proficiency**

In general the results of this study and most of the available research do not show a clearly defined effect of personality on ESL proficiency, or the SLA process. The relationship between the personality types (as measured by the JPQ) and ESL proficiency was not significant, while only two personality traits, factor B and factor I of the HSPQ, had a significant relationship with ESL proficiency. This would seem to indicate that personality is not so important, but a stepwise multiple regression analysis, using only HSPQ scores as predictor variables (i.e. excluding the influence of the GFT, SILL and JPQ), revealed that five factors of the HSPQ accounted for 13% of the total variance on the TOEFL test (cf. Table 24). It is, therefore, not possible to discount the contribution of personality types/traits completely.

The major difficulty in investigating the effect of personality on ESL proficiency appears to be that of measurement (cf. section 5.2.1). For example, a traditional classroom situation often requires that students exhibit introverted behaviour out of respect for the teacher. As a result, introversion-extroversion would have very little to do with language proficiency in an ESL situation unless the classroom learning situation were changed. Therefore, the measurement of certain personality types/traits is very difficult.

## **8.6 Implications**

The results of this study have certain implications for Second Language Acquisition (SLA) and for Second Language Teaching. In this section some of these implications are discussed.

### **8.6.1 Field Independence/Dependence and SLA**

To what extent a tendency towards either FI or FD affects SLA is difficult to say as the research results are mixed. In this study the results indicate that field independence is an individual learner characteristic that plays a positive and significant, although minor, role in the development of ESL proficiency. An FI person analyzes and isolates relevant details, detects patterns, and critically evaluates data (cf. section 3.2.1). These characteristics enable the FI person to function effectively in an academic setting where the focus is on analytical activities.

Depending upon the context of learning, it seems as if individual learners can vary their utilization of field independence or field dependence. It seems as if language learners utilize the field dependent style when the task requires "natural" communication, the kind of tasks used in the practical ENG 112 course, whereas the field independent style is utilized when the task requires analytical abilities, the kind of tasks used in the academic ENG 111 course (cf. sections 3.6 and 7.3).

### **8.6.2 Field Independence/Dependence and Second Language Teaching**

It is not unreasonable to expect that as teachers become more aware of the ways in which relatively FI and FD students learn concepts, they may become more effective in adapting instructional procedures to the needs of these different kinds of students. Some researchers (e.g. Birckbichler & Omaggio, 1978:336-344) have developed second language methods and materials to accommodate these differences, however, more research is needed to determine how these students should be taught (cf. section 8.3). It might prove effective to encourage teachers to find ways of helping students diversify their learning styles. By sensitizing teachers to the implications of the styles of their students for the teaching-learning process, the adaptability of teachers may be increased, so that they may become more diversified in the teaching approaches they use. The evidence supplied in Witkin et al. (1977a:28-30) that people can easily be made to use learning approaches other than

those fostered by their cognitive styles makes it plausible to believe that, with appropriate training methods, teaching approaches may also be diversified.

Within the English department, the FI/D cognitive style variable might be an important one to consider testing when students are viewed for placement in either the ENG 111 and the ENG 112 course, because the results would indicate whether the student can cope with the analytical tasks required in the ENG 111 course, or whether he/she is more suited for the ENG 112 course where the focus is on proficiency. This might help the department to "spot" the potential "drop-out". The university can also benefit, especially in terms of subsidization, if the student drop-out rate is lowered. However, the association found between student FI/D and ESL proficiency, as measured by the TOEFL test, is perhaps not strong enough to merit the design of elaborate educational programmes focused solely on the individual variation in FI/D preference. The amount of work in such adaptations might not yield results commensurate with the effort.

### **8.6.3 Language Learning Strategies and SLA**

In this study the "unsuccessful" language learners used the same strategies as the "successful" language learners, although not with the same frequency (cf. Table 17; Figure 10). These findings call into question the common assumptions in the SLA field, articulated by Wenden (1985:7), that "ineffective learners are inactive learners" and that "their apparent inability to learn is, in fact, due to their not having an appropriate repertoire of learning strategies". However, it is also obvious (cf. Table 17; Figure 10) that successful English second language learners frequently, but not always, use effective language learning strategies. It seems as if the advantage of exploring the effects of these strategies is that they can presumably be taught to any English second language learner and thus modify his progress through their facilitative effects (cf. section 7.4.2).

The findings in this study and the studies mentioned in section 4.3 and section 4.9 leave some questions concerning the use of language learning strategies in second language acquisition unanswered. One question concerns the need to understand in greater detail the types of second language tasks with which strategies are used, the frequency with which different strategies appear with different tasks, the conditions under which they are used, and the characteristics of the individuals who use them. A second question concerns the definition and classification of LLSs. Is Oxford's

(1990) classification system effective? How should strategies be defined? It is imperative that researchers should reach a consensus regarding this issue so that greater comparability can be achieved among the various studies, allowing for more explanatory power.

#### **8.6.4 Language Learning Strategies and Second Language Teaching**

The importance of LLSs in predicting ESL proficiency will necessarily have implications for teacher training. Intervention by the teacher could help less able students profit from the strategies used by more able students, and even the more able students could be provided with opportunities to refine and add to their language learning strategies so that they can become as efficient as possible.

Various teacher training models for this purpose have already been developed (cf. Joyce & Showers, 1987). These teacher training models help orientate teachers to understanding the value of LLSs. For example, they are presented with information on LLSs and this is then put into practice so that they can see how the theory works in practice. Teachers are then allowed to experiment with new techniques in the classroom, while receiving feedback from other teachers who may have found other techniques to be more successful.

According to Wilson (1988:323-331) there is a need not only to train teachers in methods of incorporating strategy instruction in their classrooms, but also to convince teachers that language learning strategies can be effective for their students. The first step involves identifying and diagnosing students' strategies so that the training programme the teacher devises will be effective. Some of the most important strategy assessment techniques include observations, interviews, note-taking, diaries and self-report surveys (cf. Cohen, 1987; Oxford & Crookall, 1989; Oxford, 1990). For example, self-report surveys are instruments used to gather systematic, written data on language learning strategy use. The SILL is an example of a structured self-report survey. Structured self-report surveys use standardized categories for all respondents, therefore, such surveys make it easier to summarize results of a group and objectively diagnose problems of individual students (Oxford, 1990:199).

Which techniques should second language teachers choose? According to Oxford (1990:200) there are a few considerations to keep in mind before choosing the

relevant technique: Why does the teacher want to discover his/her students' strategies? For use in orientating teaching practices, for providing feedback to students on their strategy use, or as a prelude to strategy training? It is also important to consider the time available for strategy assessment and the relative ease or difficulty of administration and analysis of the data.

Once the teacher knows how his/her students are currently learning, the teacher can help them to learn more effectively. According to Wenden (1985:1-7) and Rubin (1987:17) one of the major educational goals of the research on language learning strategies is an autonomous language learner. Insights derived from the research should guide the development of learner training activities so that learners become not only more efficient at learning and using their second language, but also more capable of self-directing these endeavours. As a result the role of the teacher will have to change, becoming more complex (Van der Walt, 1990:193). The teacher, in his new role, needs to be a facilitator rather than a director (Littlewood, 1981:91). The students, on the other hand, need to take responsibility for their own learning, because "spoon-feeding" is something that belongs to the past.

In the last few years there have been extensive and impressive attempts to examine the application of strategy training. Ellis and Sinclair (1989) published a training course for learners of English that attempts to make accessible and relevant for classroom teachers the training techniques that may be used. Oxford (1990:1-281) similarly provided a guidebook for teachers interested in strategy application.

Oxford (1990:203-209) devised an eight-step model for strategy training. The first five steps are planning and preparation steps, while the last three involve conducting, evaluating and revising the training (cf. Table 25).

**Table 25: Steps in The Strategy Training Model**

Step 1 Determine the learners' needs and the time available

Step 2 Select strategies well

Step 3 Consider integration of strategy training

Step 4 Consider motivational issues

Step 5 Prepare materials and activities

Step 6 Conduct "completely informal training"

Step 7 Evaluate the strategy training

Step 8 Revise the strategy training

(Oxford, 1990:203-209).

There are also a number of more practical concerns in learner strategy research. A few unresolved issues in instruction in learning strategies are: whether instruction should focus only on learning strategy instruction or should be integrated with classroom instruction in the language or content subject, and whether students should be informed of the purposes of training or not (O'Malley & Chamot, 1990:151-154). Despite the efforts of many researchers (e.g. Oxford, 1990) to develop strategy training models and materials there is little evidence to indicate the effectiveness of such training. More research is needed to establish that there are consequences in using learner training, rather than providing more activities for teachers and learners to engage in.

#### **8.6.5 Personality Types/Traits and SLA**

Although this study has produced significant relationships between some personality traits and ESL proficiency, these findings and lack of correlations between other personality types/traits and ESL proficiency require further explanation and research. While there is no suggestion that certain personality types/traits are either a necessary or a sufficient condition for swift and successful second language learning, there is a possibility that personality types/traits may influence SLA indirectly as opposed to directly (cf. section 5.4).

Different cultures may also value certain personality types/traits differently (cf. sections 5.4 and 7.5). This has certain implications for the definition of personality types/traits, because researchers will have to define certain personality types/traits cross-culturally, in order to understand how different cultures express, for example, empathy.

The major difficulty in investigating the effects of personality remains that of measurement (cf. section 5.2.1). According to Oller (1981:20-26) a profound problem in the measurement of affective variables lies in the "self-flattery"

syndrome. Generally, testees will try to discern "right" answers to questions (i.e. answers that make them look "good"), even though directions to these tests say that there are no "right" or "wrong" answers. As a result, perceptions of self are likely to be considerably biased toward what the testee perceives as a highly desirable personality type. Therefore, the results have to be interpreted cautiously. According to Busch (1982:130) and Strong (1983:257) long-term observations of behaviour in relevant settings might be a more reliable way of determining the relationship between personality types/traits and second language learning, than psychological tests are. Forced-choice instruments such as the Edwards Personal Preference Schedule could also be considered, bearing in mind the statistical and psychometric qualities of such instruments. This seems to imply that researchers in the SLA field should consider alternative ways of measuring personality types/traits. The measurement of personality types/traits remains a perplexing problem.

#### **8.6.6 Personality Types/Traits and Second Language Teaching**

In South Africa it will become imperative that teachers consider cultural norms in their classrooms. For example, a student's presumed "passivity" in the classroom might be as a result of his cultural background. A teacher should avoid trying to "create" in a student more so-called extroversion than is really necessary. Teachers need to be sensitive to a student's willingness to speak out in class. It is common knowledge that the teacher is confronted with a variety of personality types in his/her class. In a study conducted by Wong Fillmore (1982) she speculated that the type of instruction individuals received influenced the personality type that was favoured. She observed that shy children progressed more rapidly than outgoing children in classrooms which were more teacher-oriented and structured, rather than oriented towards group activities. The role of the teacher is changing; it is becoming more demanding. Teachers have to be "psychologists"; they have to understand and also know what to expect and how to handle students with different personality types/traits in their classrooms. It is, therefore, essential that the activities in the classroom allow each student sufficient freedom to exercise his/her own personality (cf. Brumfit, 1982:15).

#### **8.7 Recommendations for Future Research**

The increasing number of university students, especially black students, who receive instruction in a medium which is not their mother tongue, has underlined the need

for the recognition of individual differences among different language learners. One of the greatest challenges which teachers, lecturers and researchers now face in South Africa is that of providing effective second language teaching within the context of either the public school system, or the tertiary educational system.

Future research should take into account past accomplishments and failures. It is essential that future research should not only reveal important learner differences, but also indicate appropriate individualized educational techniques that can promote a greater degree of language learning success among more people.

The insights gained from this study have raised further questions: How should ESL learners with particular cognitive styles be taught? FI/D students may prefer and excel in different situations. Research needs to proceed in this direction by placing students in instructional environments (i.e. classrooms) based on their level of FI/D and by further investigating approaches that can be taken in individualized forms of instruction. In short, it is not appropriate to assume that all learners will benefit from the same kind of second language instruction; it is one of the tasks of researchers to determine how instruction ought to vary from one learner to another. It is also recommended that the FI/D variable, as measured by, for example, the GFT, be part of a placement test. In an English department this could provide an additional measure for placing ENG 111 and ENG 112 students in their respective courses. This may provide an indication of the potential "drop-out" number.

The major difficulty in investigating the effects of personality remains that of measurement (cf. sections 5.2.1 and 8.2.5). Further research should be conducted, and should include the investigation of numerous other personality variables and other instruments to measure these variables. Although the Jung Personality Questionnaire did not prove to be of much value, the position may, for example, not be the same with Holland's Self Directed Search (SDS) scale.

Although the results of this study suggest an important positive role for language learning strategies in language classrooms, two questions need further examination before conclusive pedagogical implications can be made. Firstly, it needs to be demonstrated that these strategies can be taught to less proficient language learners to enhance their language learning experience. Only a limited amount of work has been done in assessing the effects of learner training (cf. Omaggio, 1981), though some of the research is extremely suggestive of its potential. There is an urgent need

for such research to be carried out in order to validate the extent to which and the conditions under which these strategies can help less proficient language learners. However, it will also be essential to identify which strategies or groups of strategies are most susceptible to training. Secondly, it has to be shown that the formal learning of strategies in a "classroom" has the desired effects on ESL proficiency. With the additional demonstration of their trainability and effectiveness, more precise conclusions concerning the role of these language learning strategies in language classrooms may follow. Longitudinal studies that follow learners over extended periods of time, work that examines large groups of learners, and research that considers learner variables in relation to various strategies would make important contributions to the existing knowledge about language learning strategies. Case studies are also essential in advancing this area of study.

Educators are interested in extending the information gained from research to the improvement of both learning and teaching second languages. To this end, instructional models and materials are helpful in illustrating the ways in which research findings can be converted into practical classroom activities.

Efforts towards devising programmes and materials to train learners should be continued. There is a need for curricular strategies, techniques and materials to provide training that would not only expand learners' repertoires of efficient strategies, but also make them aware of various aspects of their language learning. Effective means should be devised for evaluating the impact of such training endeavours. However, important questions remain: Is LLS training always appropriate? If not, when is it most and least valuable? What strategies should be covered in training sessions, how, for whom, and how long? How should LLS training deal with variables like sex, ethnicity, learning styles, personality and motivation? How can LLS training be tailored to the needs of individuals and groups?

LLS investigations should also examine less formal (non-classroom) situations in which people gain skills in a new language, such as, for example, travelling abroad. To understand more about how language skills are developed, and to help enhance that development process, researchers should compare the strategies used in informal situations with those used in more conventional environments. Both settings may have something to offer in terms of the strategies they foster; but

informal situations might provide especially rich information about strategies that can be adapted for use within more formal environments.

Modern society is being dominated by the use of the computer, therefore, new computer-assisted language learning technologies can also be examined to determine their effects on the strategies students use to learn a new language.

The results of this study indicated that FI/D, LLSs and PTs had a statistically significant influence on ESL proficiency. However, only LLSs also had a practically significant influence on ESL proficiency. It is essential that future research should indicate the statistical significance as well as the practical significance which exists between variables, because if a variable does not have a practically significant relationship with, for example, the criterion measure, it may not be worthwhile to take cognizance of such a variable (cf. sections 1.1 and 6.6).

Finally, it is essential that future research focusing on individual differences should try to build bridges between a focus on particular individual differences that can characterize learner performance and, for example, process-oriented research that is more typical of SLA studies (Skehan, 1991:296).

## **8.8 Conclusion**

The purpose of studying individual learner variables is to determine how they affect SLA. Three major variables were investigated in this study, viz. field independence/dependence, language learning strategies and personality types/traits. The results indicated that LLSs were the most significant predictors of ESL proficiency. The contribution of the other variables that were investigated was small, but it is not possible to discount their influence. It would rather seem as if a combination of different variables is necessary to predict ESL proficiency successfully. Teachers/researchers are, however, well advised to bear in mind that the "good language learner" has not yet been defined. An overriding and all-pervading variable that classifies learners neatly into categories of "successful" and "unsuccessful" has not yet been identified.

Overall the results of this study indicate that there are learner variables which can make a positive contribution to the prediction of proficiency in a second language.

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## SUMMARY

While all humans exhibit inherently human traits of learning, every individual approaches a problem or learns a set of facts or organizes a combination of feelings from a unique perspective. Therefore, one of the major issues in the Second Language Acquisition (SLA) field is the question of differential success among language learners. Research on SLA has identified a variety of variables hypothesized to account for some of the variance in the level of proficiency attained by individuals learning a second language. However, more research is needed before statements can be made about which combination of learner variables is ultimately crucial to Second Language Acquisition in a particular setting.

The purpose of this study was to establish the relationship between the field independence/dependence (FI/D), language learning strategies (LLSs), personality types/traits (PT) and ESL proficiency of Afrikaans first year university students studying English as a second language.

The methodology employed in this study was discussed under four main headings: subjects, instrumentation, data collection procedure, and design and analysis. A total number of 305 Afrikaans first year students at the Potchefstroom University taking English were included in this study. Five paper-and-pencil instruments were used:

- 1) The Gottschaldt Figures Test (GFT),
- 2) The Strategy Inventory for Language Learning (SILL),
- 3) The Jung Personality Questionnaire (JPQ),
- 4) The High School Personality Questionnaire (HSPQ), and
- 5) The Test of English as a Foreign Language (TOEFL).

The tests for the predictor variables were group-administered during scheduled afternoon tutorial periods in April 1991, while the criterion test was group-administered towards the end of June 1991.

The data were analysed by using the "Statistical Analyses System" (SAS) programmes (1988). The following analyses were used: Pearson product-moment correlations, canonical correlations and stepwise multiple regression.

The results indicated:

- a statistically significant, but not practically significant, relationship between FI/D and ESL proficiency,
- a statistically significant as well as a practically significant relationship between LLSs and ESL proficiency,
- a statistically significant, but not practically significant, relationship between only two personality traits and ESL proficiency, and
- that LLSs accounted for approximately 45% of the total variance on the TOEFL test.

The results indicated the importance and significance of LLSs in predicting ESL proficiency. As a result various factors which could influence LLS use were also assessed. The results indicated:

- that ENG 111 students used LLSs far more frequently than ENG 112 students and that the ENG 111 students were more proficient language learners than the ENG 112 students,
- that females differed significantly from males in their LLS use; females using LLSs more frequently,
- that course status had a significant influence on LLS use, and
- that major field of study significantly influenced LLS use.

The results indicated that LLSs were the most significant predictors of ESL proficiency. The contribution of the other variables that were investigated was small, however, it is not possible to discount their influence. It would rather seem as if a combination of different variables is necessary to predict ESL proficiency successfully. Teachers/researchers are well advised to bear in mind that "the good language learner" has not yet been defined. An overriding and all-pervading variable that classifies learners neatly into categories of "successful" and "unsuccessful" has not yet been identified.

## OPSOMMING

Alhoewel alle mense sekere inherente menslike eienskappe van leer vertoon, benader elke individu 'n probleem, of leer hy 'n stel feite, of rangskik hy 'n samespel van gevoelens vanuit 'n unieke perspektief. Daarom is die vraag oor die onderskeidende suksesvlakke by taalleerders een van die belangrikste geskilpunte in die studieveld van tweedetaalverwerwing.

Navorsing oor tweedetaalverwerwing het 'n verskeidenheid veranderlikes geïdentifiseer wat tot hipotetiese stellings gelei het om die verskillende sieninge oor die wisseling in die vlak van bekwaamheid deur sekere individue tydens die aanleer van 'n tweede taal te verantwoord.

Meer navorsing is egter nodig voordat stellings gemaak kan word oor watter samestelling van veranderlikes van deurslaggewende belang is vir tweedetaalverwerwing in 'n spesifieke omgewing.

Die doel van hierdie studie was om die verwantskap tussen die velde onafhanklikheid/afhanklikheid (VO/A), taalleer- strategieë (TLS), persoonlikheidsstipes/treke (PT) en ESL (ETT) (Engels as Tweede Taal) vaardigheid van Afrikaanssprekende eerstejaarstudente wat Engels as 'n tweede taal bestudeer, vas te stel.

Die metodologie wat in hierdie studie toegepas is, is onder vier hoofde bespreek: proefpersone, meetinstrumente, data versameling prosedure, en ontwerp en analise. Vir die doel van hierdie studie is gebruik gemaak van 305 Afrikaanssprekende eerstejaar studente wat Engels neem aan die Potchefstroomse Universiteit. Daar is gebruik gemaak van vyf papier-en-potlood meetinstrumente:

- 1) Die Gottschaldt Figure Toets (GFT),
- 2) Die "Strategy Inventory for Language Learning" (SILL),
- 3) Die Jung Persoonlikheidsvraelys (JPV),
- 4) Die Hoërskool Persoonlikheidsvraelys (HSPV), en
- 5) Die "Test of English as a Foreign Language" (TOEFL).

Die toetse vir die onafhanklike veranderlikes is aan groepe voorgelê gedurende geskeduleerde tutoriaal periodes in April 1991, terwyl die kriteriumtoets aan groepe voorgelê is teen die einde van Junie 1991.

Die data is ontleed deur gebruik te maak van die "Statistical Analyses System" (SAS) programme (1988). Die volgende metodes van analise is gebruik: Pearson produk-moment korrelasies, kanoniese korrelasies en stapsgewyse meervoudige-regressie-analise.

Die resultate het aangetoon:

- \* dat daar 'n statisties betekenisvolle, maar nie 'n prakties betekenisvolle verwantskap tussen VO/A en ETT bekwaamheid bestaan,
- \* dat daar 'n statisties betekenisvolle sowel as 'n prakties betekenisvolle verwantskap tussen TLS en ETT bekwaamheid bestaan,
- \* dat daar 'n statisties betekenisvolle, maar nie 'n prakties betekenisvolle, verwantskap tussen slegs twee van die PT en ETT bekwaamheid bestaan, en
- \* dat TLS verantwoordelik was vir ongeveer 45% van die totale variansie in die TOEFL toets.

Die resultate het die belangrikheid en sinvolheid van TLS in die voorspelling van ETT bekwaamheid aangetoon. As gevolg hiervan is verskeie faktore wat die gebruik van TLS moontlik kon beïnvloed ook in berekening gebring.

Die resultate het aangetoon:

- \* dat ENG 111 studente TLS baie meer algemeen gebruik het as ENG 112 studente en dat die ENG 111 studente meer bedrewe taalleerders was as die ENG 112 studente,
- \* dat dames beduidend verskil het van mans in hulle gebruik van TLS; dames het TLS meer gereed gebruik,
- \* dat die status van die kursus 'n beduidende invloed gehad het op die gebruik van TLS, en
- \* dat die hoofstudiesvelde 'n beduidende invloed gehad het op die gebruik van TLS.

Die resultate het aangetoon dat TLS die rees beduidende voorspeller van Engels tweedetaalvaardigheid was. Alhoewel die invloed van ander veranderlikes wat

ondersoek is klein was, moet hulle invloed nie onderskat word nie. Dit blyk eerder asof 'n samestelling van verskillende veranderlikes nodig is om ETT vaardigheid suksesvol te voorspel. Onderwysers/navorsers moet in gedagte hou dat die "goeie taalleerder" nog nie geïdentifiseer is nie. 'n Oorheersende en al deurdringende veranderlike wat leerlinge netjies in die kategorieë "suksesvol" en "onsuksesvol" klassifiseer is nog nie vasgestel nie.

**APPENDIX A**

**BACKGROUND QUESTIONNAIRE**

Answer all the questions.

Name:.....

Native Language:.....

Age:.....

Sex: Female.....Male.....(encircle)

Course Status: Are you taking English because you  
want to (elective)?

OR

Are you taking English because you  
need it to obtain your degree (required)?

Major Field of Study: (e.g. B. Juris,; BA,; B.Sc.,etc.)

.....

What symbol did you obtain for English in matric?.....HG.....SG

What symbol did you obtain for Afrikaans in matric?.....HG.....SG