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A STUDY OF COGNITIVE STYLES AND STRATEGY USE BY SUCCESSFUL AND UNSUCCESSFUL ADULT LEARNERS IN SWITZERLAND

by

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ABSTRACT

A great deal of an EFL teacher's time is spent helping individuals struggling with L2 learning, and although many variables have been identified which account for success, this knowledge has not produced a universal theory of second language acquisition. Consequently, scholars are increasingly arguing that successful learners combine these factors in unique ways in the process of self-regulated learning. In an attempt to understand this process more clearly, the research reported in this paper investigates the existence of a link between cognitive style and learning strategies, and considers how their relationship differs between successful and unsuccessful learners in my classroom, with the aim of offering concrete advice to assist students in the process of self-regulation. The data from this study suggests that a link between cognitive style and learning strategies exists and that certain types of strategy are important for successful learning for the different cognitive style groups. It is argued that by supplementing traditional syllabi with instruction on style awareness and strategy training, teachers can offer concrete advice to those most in need. Finally, it is suggested that should this training be introduced at the early stages of L2 learning then the possibility of success could be maximised.

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LIST OF ABBREVIATIONS

BIQ	Background information questionnaire
CAE	Certificate in Advanced English
CEFR	Common European Framework of Reference for Languages
CLT	Communicative Language Teaching
EFL	English as a Foreign Language
ELT	English Language Teaching
EI	Cognitive style type: *expert investigator*
EI/RR	Cognitive style type: *expert investigator/radical reformer*
FCE	First Certificate in English
FF	Cognitive style type: *flexible friend*
ID(s)	Individual difference(s)
L1	First Language
L2	Second Language
MOI	Mind organisation index ©
NNS	Non-native speaker
OPT	Oxford placement test
PLSP	Perceptual Learning Style Preferences questionnaire
PP	Cognitive style type: *power planner*
RR	Cognitive style type: *radical reformer*
SILL	Strategy Inventory for Language Learners
SLA	Second language acquisition
SSBI	Style and strategy based instruction

1. INTRODUCTION

In staff rooms across the globe conversations can be heard among teachers singing the praises of their perfect student who seems to absorb language with virtually no effort. Unfortunately, discussions about learners who appear to make little progress, despite many hours studying are probably more common. For a teacher, it often seems impossible to help those struggling to acquire a foreign language, as there are so many theories accounting for individual differences (IDs) in second language acquisition (SLA). Therefore, any SLA research undertaken by teaching professionals which addresses this common problem could prove invaluable, as it is exactly these learners who require the most assistance.

According to Ellis (2000, p. 471), there is a "veritable plethora of individual learner variables" that research has identified to help provide an explanation for the varying rates of success among foreign language learners. These include age, intelligence, aptitude, motivation, attitude, personality, learning/cognitive style and learning strategies. Some of these ID variables are fixed, beyond control of both the learner and teacher, such as age and intelligence, while others can be viewed as relatively stable, such as learning/cognitive style. Finally, there are those factors, such as motivation and strategies, which learners and teachers can influence, (Cohen & Dörnyei, 2002). However, despite all this knowledge about what accounts for differences in learner success, according to Guild and Garger (1998, p. 17) "[w]e do not have evidence of one best way to teach just as we don't know of one best way to learn". This means that, in

spite of extensive research into all these areas, no scholar has been able to identify a definitive theory of SLA which can be universally applied. However, just because no-one has found a system which helps all students be successful, does not mean research should not attempt to solve this most elusive of puzzles. In my opinion, it is hardly surprising that the study of ID factors has not provided a one-fits-all solution, given that learners are all individuals who probably combine the factors in different ways to result in successful (or unsuccessful) learning. Nevertheless, it does not preclude the possibility that links between ID factors can be established, which might help some, if not all, learners improve their language learning performance.

The research project, discussed in this paper, was born from a desire to help those who invest considerable time and energy, but nevertheless fail to achieve the success they desire. For example, I observed one particular student who seemed to spend a great deal of time writing vocabulary on cards, which, in normal circumstances, is considered an excellent learning strategy, but, when she was confronted with that same vocabulary used in a sentence to express meaning, understanding eluded her. It was this apparent paradox which led me to develop a theory that perhaps the strategy of writing words on cards was not an appropriate one for her style of learning. Therefore, this project will investigate these two ID variables, i.e. strategy use and cognitive style, the relationship between them, and how that relationship differs between successful and unsuccessful learners.

Chapter two reviews the extensive body of existing research relating to both learning strategies and learning/cognitive style to provide working definitions of the terms used in

the study, a rationale for my choice of style and strategy measurement tools and to position this study within existing research. In chapter three, I will outline the research questions and methodology. Chapter four will provide a discussion of the findings in relation to the research questions. Finally, chapter five considers the implications of the research findings for both the language learner and teacher, the limitations of this study and possible future research.

2. LITERATURE REVIEW

2.1 Introduction

This chapter provides the theoretical framework for this study, exploring a range of existing research and definitions of the relevant concepts to ensure a solid foundation for the study that follows. It commences with a brief overview of ID theory, followed by a discussion of the literature which led to the selection of the ID variables used in this project, namely cognitive style and learning strategies. Further research relating to the two variables is discussed in turn, to provide working definitions of the relevant terms. Finally, an analysis of the myriad of literature relating to these two areas will supply the justification for my choice of style and strategy measurement tools and position this study within existing research.

2.2 Individual differences in language learning

Dörnyei (2005, p. 1) defines IDs as "characteristics or traits in respect of which individuals may be shown to differ from each other" and points out that research has shown these variables to consistently predict success at L2 learning. Ellis (2000, p. 472) provides, by way of definition, a useful summary of a range of ID variables identified by three separate surveys. As can be seen from table 2.1, there is considerable overlap between the lists, with all three featuring motivation and learning strategies. Equally, there are differences in categorisation, with two including cognitive style and one list cognitive and affective factors. In addition, two contain personality factors, whereas the

remaining survey omits them altogether. Nevertheless, some of the elements included in Larsen-Freeman and Long's personality factors are incorporated in Skehan's cognitive and affective factors. Finally, some factors are considered important by only one of the surveys, for example general intelligence.

Table 2.1: Factors affecting learning success, according to three surveys (Ellis, 2000)

Altman **(1980)**	Skehan **(1989)**	Larsen-Freeman & Long **(1991)**
Age	Language Aptitude	Age
Sex	Motivation	Socio-psychological factors: • Motivation • Attitude
Previous experience of language learning	Language learning strategies	Personality: • Self-esteem • Extroversion • Anxiety • Risk-taking • Sensitivity to rejection • Empathy • Inhibition • Tolerance of ambiguity
Proficiency in the native language	Cognitive and affective factors: • Extroversion/introversion • Risk-taking • Intelligence • Field independence • Anxiety	Cognitive style: • Field independence/ dependence • Category width • Reflexivity/impulsivity • Aural/visual • Analytic/gestalt
Personality factors		Hemisphere specialisation
Language aptitude		Learning Strategies
Attitudes and motivation		Other factors: • Memory • Sex
General Intelligence		
Sense modality preference		
Sociological preference		
Cognitive styles		
Learner strategies		

It could be argued that including strategies as an ID variable is not consistent with Dörnyei's definition of the term, as they are neither characteristics nor traits, rather something that learners do. However, as will be seen in section 2.4, research has shown that strategies can account for differences in the rate of achievement and, therefore, in my opinion, are correctly included within the list of ID variables. Accordingly, for the purposes of this study, I would define ID variables as characteristics, traits *or behaviour* in respect of which individuals may be shown to differ from each other. Although age, intelligence, aptitude and motivation can affect success in L2 learning, they will not be discussed further. Instead, literature relating to learning strategies and styles will be the focus of the discussion, initially exploring research into the links between them.

Riding and Rayner (1998) argue that a learner's personal style constitutes a combination of his/her cognitive style and learning strategies, suggesting that the two elements are conceptually linked. Dörnyei (2005, p. 122) supports this theory, arguing that cognitive style and learning strategies "both denote specific ways learners go about carrying out learning tasks". Riding (2002, cited in Dörnyei 2005) argues that styles are reasonably stable, while strategies can be learned and developed by individuals when attempting a particular task. Moreover, as Cohen (2001, p. 9) points out:

> What is becoming increasingly clear is that there is an important link between the style preference that learners have and the language learning ... strategies that they select in order to accomplish language tasks.

Furthermore, research by Cohen (2001, pp. 2-3) into style- and strategies-based instruction (SSBI) has shown that students can enhance "their current strategy repertoire

while at the same time complementing it with additional strategies that may be of benefit, given their style preferences". In other words, it is possible to use strategies to support the strengths that are related with one's style, which Dörnyei (2005, p. 156), refers to as "*style stretching*". Moreover, Riding and Sadler-Smith (1997, p. 204, cited in Riding & Rayner, 1998, p. 86) suggest that "individuals may not be able to change their styles but they can develop strategies to make themselves as effective as possible in a given learning situation". Additionally, research by Gallin (1999, cited in Cohen, 2001, p. 9) has shown a link between cognitive style and reading strategies. Finally, the Perceptual Learning Style Preference Questionnaire (PLSP), which was developed by Reid (1987) to determine whether learners used visual, auditory, kinaesthetic or tactile channels, was used by Rossi (1995) to investigate links between perceptual learner-style preference and learning strategies, as measured by the Strategy Inventory for Language Learning (SILL). Rossi (1995, p. 121) found that "an individual's learning style preference influences the types of learning strategies that he or she will employ in acquiring a second language". All these research findings appear to confirm the existence of a link between these ID factors and, therefore, led to their selection for classroom investigation. However, rather than repeat existing studies, I decided to focus on the relationship between cognitive styles and learning strategies in the hope that if links could be established between them, then our understanding of this complex area would be increased. Furthermore, if these links can be seen to differ between successful and unsuccessful learners, then teachers on the front line of language learning can be offered concrete advice for use in the classroom.

In the next section, research relating to both learning and cognitive styles is considered to provide a suitable definition of the relevant concepts for the purposes of this study, as well as justification for the use of the style measurement tool selected.

2.3 Learning and cognitive style

2.3.1 Learning and cognitive style defined

Few ELT professionals would argue with the concept that learners approach learning in different ways, and that these differences are not infinite in nature, rather "characterized by systematic patterns" or *learning styles* (Dörnyei, 2005, p. 122). Equally, few would disagree that the idea of style is alluring because, while aptitude and intelligence imply success at learning, or lack of it, style makes no such judgements.

As both Cassidy (2004) and Dörnyei (2005) separately point out, providing a definition of this term is not a straightforward process because the number of labels and style dimensions are varied, and there is little agreement among scholars as to how they should be defined. Similarly, Ehrman, Leaver and Oxford (2003, p. 314) argue that the terms *learning* and *cognitive style* are often used "interchangeably", which I believe should not be the case. In my opinion, in order to provide a definition of *cognitive style*, it is first necessary to examine what is understood by the term *learning style*. Therefore, in this section a review of a variety of definitions of *learning style* is undertaken, (table 2.2), with a view to identifying its essential characteristics. With these characteristics in mind, the

concept of *cognitive style* is discussed to provide a distinction between the two terms for the purpose of this study.

Table 2.2: Definitions of learning style

Scholar	Definition of *learning style*
Reid (1995, p. viii)	[A]n individual's natural, habitual, and preferred way(s) of absorbing, processing, and retaining new information and skills.
Ehrman (1996, p. 49, cited in Dörnyei 2005, p. 121)	[Learning styles are] broad preferences for going about the business of learning.
Dörnyei (2005, p. 121)	[T]he concept represents a profile of the individual's approach to learning, a blueprint of the habitual or preferred way the individual perceives, interacts with, and responds to the learning environment.
Keefe (1979, cited in Ellis 2000, p. 499)	[T]he characteristic cognitive, affective and physiological behaviours that serve as relatively stable indicators of how learners perceive, interact with and respond to the learning environment ... Learning style is a consistent way of functioning, that reflects underlying causes of behaviour.
Brown (2007, p. 119)	[C]onsistent and rather enduring tendencies or preferences within an individual ... those general characteristics of intellectual functioning ... that pertain to you as an individual, and that differentiate you from someone else.
Cohen (2001, p. 3)	The learners' typical preferences for approaching learning.
Cassidy (2004, pp. 420-421)	[L]earning style is adopted to reflect a concern with the application of cognitive style in a learning situation ... [and] is seen as encompassing a number of components which are not mutually exclusive. It is also likely that cognitive style ... can be regarded as one significant component of learning style.
Oxford (2003, p. 273)	[T]he general approach preferred by the student when learning a subject, acquiring a language, or dealing with a difficult problem ... Learning style is an overall pattern that provides broad direction to learning and makes the same instructional method beloved by some students and hated by others.
Cohen and Dörnyei (2002, p. 176)	Researchers ... have observed that various learners approach learning in a significantly different manner, and the concept of 'learning styles' has been used to refer to these differences.
Kinsella (1995, p. 171)	A *learning style* refers to an individual's natural, habitual, and preferred ways of absorbing, processing, and retaining new information and skills which persist regardless of teaching methods and content area. Everyone has a learning style, but each person's is as unique as a signature. Each signature appears to be influenced by both nature and nurture; it is a biological and developmental set of characteristics. ... The concept of learning styles ... offers a value-neutral approach for understanding individual differences among ... students.

From all these definitions it is possible to identify five characteristics of *learning style*:

i. It demonstrates habitual behaviour, which is consistent.

ii. It expresses a learner's reasonably stable general preferences when learning.

iii. It is neutral, so learners can be successful and unsuccessful in each style position.

iv. It relates to how learners absorb, process and retain new information.

v. It incorporates the concept of cognitive style.

The last point, derived from Cassidy's definition, is interesting, as it contributes an additional dimension to learning style, i.e. *cognitive style*, which Allport (1937, cited in Cassidy, 2004, p. 420) defines as the way an individual usually thinks, perceives things, or solves a problem. In addition, cognitive style is viewed as bipolar, meaning that learners can be found on a continuum of two opposing characteristics. Rayner (2000, cited in Dörnyei, 2005, p. 124) also argues that learning style consists of two components: *cognitive functioning*, which refers to a "stable and internalized dimension related to the way a person thinks or processes information" and *learning activity* "which is more external and embraces less stable functions that relate to the learner's continuing adaptation to the environment" (Dörnyei, 2005, p. 124). Finally, Brown (2007, pp. 119-120) suggests that "[w]hen cognitive styles are specifically related to an educational context, where affective and physiological factors are intermingled, they are usually more generally referred to as *learning styles*". From this separation of the terms Dörnyei (2005, p. 124) concludes that "the core of a learning style is the *cognitive style" (my italics)*. In other words, a learner's cognitive style is the part of learning style that relates to how learners perceive and store information.

2.3.2 Learning and cognitive style models

To further understand the concept of learning and cognitive style, it is useful to discuss the models that have been created to measure them. Cassidy (2004) provides an excellent review of style models (table 2.3), using three taxonomies.

Table 2.3: Taxonomy of style models (Cassidy, 2004)

	Curry 1987				Riding and Chema (1991)	Rayner and Riding (1997)		
Model	Instructional Preference	Social interaction	Information Processing	Cognitive Personality	Wholistic-analytic	Personality centred	Cognitive centred	Learning centred
Witkin (1962) Field-dependence/independence								
Kagan (1965) Impulsivity - relfexivity								
Holzman and Klein (1954) Leveller - sharpener								
Pask (1972) Holist - serialist								
Pavio (1971) Verbaliser-visualiser								
Gregorc (1982) Style delineator								
Kaiffmann (1979) Assimilator - explorer								
Kirton (1994) Adaptation - innovation								
Allison and Hayes (1996) Intuition - analysis								
Kolb (1984) ELM								
Honey and Mumford, (1992) LSQ								
Vermunt (1994) LSI								
Entwistle and Tait (1995) Surface-deep								
Biggs et al (2001) SPQ								
Scmeck et al (1991 ILP								
Hunt et al (1978) Conceptual level								
Dunn, Dunn and Price (1978) LSI								
Reichmann and Grasscha (1974) Styles of learning interaction model								
Remirez and Castenada (1974) Child rating form								
Reinert (1976) ELSIE								
Hill (1976) Cognitive Style Interest Inventory								
Letteri (1980) Learner types								
Keefe and Monks (1986) Learning style profile								

Curry's taxonomy examines 23 models, categorising them into four groups, *cognitive personality, information processing, social interaction and instructional preference*, while Riding and Rayner's categorises the same 23 models into *personality, cognitive* or *learning centred*. Finally, Riding and Chema's taxonomy lists 9 models, all of which are categorised as "cognitive" in the other two taxonomies, but using the term *wholisitic-analytic*.

In my opinion, Cassidy's comparison is useful because it allows researchers to see how the systems relate to the definitions of learning and cognitive style, therefore, helping them to choose a suitable measurement tool for their particular purpose. Therefore, using this taxonomy, I have chosen Gregorc's style delineator from the above tools as my starting point for the discussion of cognitive style measurement.

2.3.2.1 Gregorc's style model

Gregorc's style model evolved following research into successful learners. His research found two bipolar dimensions as significant in successful learning: how learners perceive information on the one hand, and how they store information on the other, making it a measure of cognitive style. The perception dimension uses the extremes of *concrete* and *abstract*, while the storing dimension uses *sequential* and *random* extremes (Gregorc, 1984). These dimensions give rise to four cognitive style groups: *concrete-sequential*, *concrete-random*, *abstract-sequential* and *abstract-random* (figure 2.1).

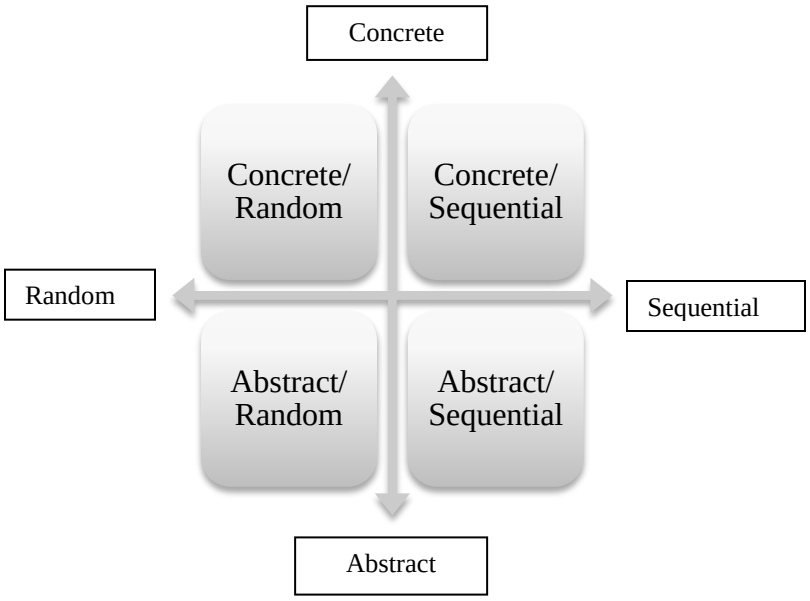


Figure 2.1: Gregorc's style model (adapted from Gregorc, 1982)

As part of the model, Gregorc provided detailed descriptions of the four cognitive style types. *Concrete-sequential* learners are methodical, organised, realistic and practical, viewing the world in a concrete manner, interpreting things literally and in an ordered fashion, which can result in them being adverse to change. They are "cool, calm and collected, patient and hardworking" and seek environments that reflect this (Gregorc, 1982, pp. 19-22). *Concrete-random* individuals use their instinct and intuition to interpret a concrete world often providing creative and insightful solutions to problems. They thrive in a competitive, stimulus-rich environment that values creativity and personal freedom (Gregorc, 1982, pp. 35-38). *Abstract-sequential* types are intellectual and logical; they are serious and determined realists, who perceive details. They are often slow to respond to change because they need to spend time considering all the facts and benefit from a quiet working environment. The *abstract-random* learners are enthusiastic,

sociable idealists, who see the world from the point of view of relationships. They seek a working environment in which they feel comfortable and need to work together with others when learning (Gregorc, 1982, pp. 29-33). Finally, Gregorc developed a measurement tool for his cognitive style dimensions, the *Style Delineator,* which uses a series of ten groups of four words which individuals rank in order of how closely the words reflect their sense of self. In my view, the characteristics of the style types provided by Gregorc's model represent general personality traits, which while interesting, are not ideal for this study. In addition, I believe that the use of words as a measuring tool is aimed at an academic L1 learner, which is once more not ideal for an L2 learning environment.

Gregorc's model has been criticised for the lack of empirical evidence to support it (Jonassen and Grabowski 1993, cited in Riding & Rayner, 1998). It is clear that this view point is extremely important when undertaking research, however, I believe, to completely dismiss the model on those grounds is somewhat premature, because although not perfect, it helps educators and learners better understand cognitive style, and if research could offer a means of extending understanding in this area, then, I suggest, the benefits to learners and teachers would outweigh the limitations exposed by lack of empirical evidence.

Gregorc's (1984, p. 53) research revealed that "style patterns can be 'learned' or 'adopted' to some degree" and that the learners, who were all successful, had strategies to cope when learning tasks or situations contradicted their style type. This is consistent with

research into strategy based instruction that suggests that '*style stretching*' is possible (Cohen, 2001). These latter two research findings are particularly relevant to this study, as they offer the possibility that successful learners use strategies not only to support their strengths but also to counteract their weaknesses. Therefore, from the above discussion I feel that Gregorc's model itself is not a suitable cognitive style measurement tool for this study. Nevertheless, it does offer many interesting features and it is these features that have been retained in the mind organisation index©, which will be discussed in the next section.

2.3.2.2 Mind organisation index ©

Bowie's (1998) mind organisation index© (MOI) was developed for use with teenagers in research which examined the effectiveness of a style awareness programme. Taking Gregorc's model as her starting point, Bowie developed the MOI, which uses the same dimensions as Gregorc's model, but with new names for the style types, so that they more clearly reflect their style characteristics, making them more easily identifiable by learners and teachers alike. Figure 2.2 illustrates these types.

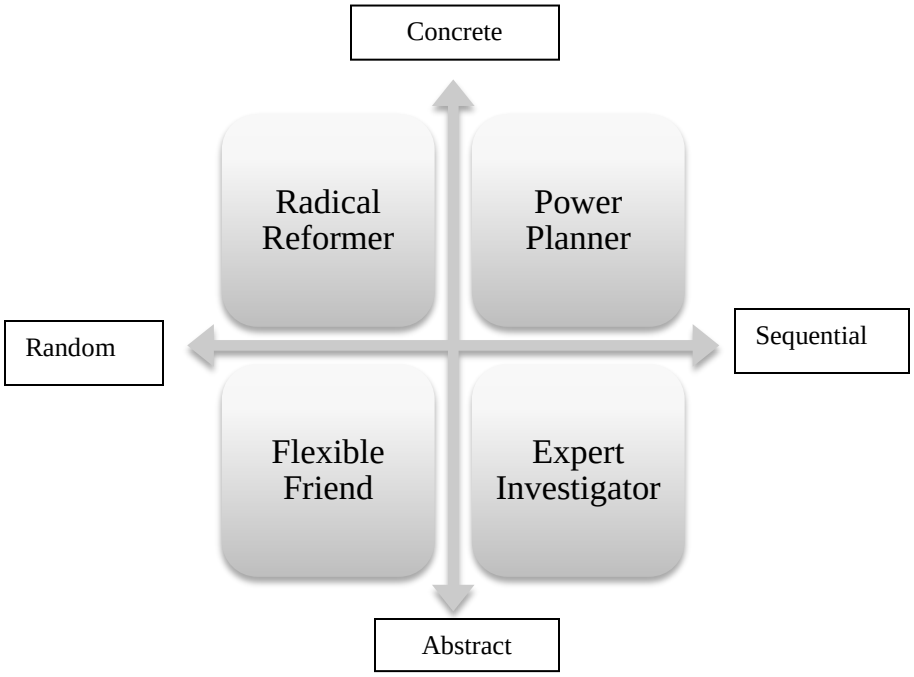


Figure 2.2: Bowie's mind organisation index © types (adapted from Bowie, 1998)

In addition to changing the names, Bowie also provided a measurement tool (appendix four), using ten groups of four statements, detailing actual behaviour, that are ranked in order of how much they reflect the learner as an individual (Bowie, 1995). As a final element of her model, Bowie provided descriptions of each cognitive style (appendix five) focusing on the differing ways the style types learn and itemising not only what makes sense to each group, but also their stress factors (Bowie, 1998). This will be discussed further in section 4.7. All these elements, in my view, are more accessible to the average student, making them appealing for both participants and researchers.

Bowie's (1998, p. 82) study found that an understanding of one's learning style profile encourages individuals to acknowledge both their strengths and weaknesses and thereby

"fosters self-esteem by validating the individual". The benefits of style awareness are aptly summarised by Guild and Garger (1998, p. 77):

> Perhaps one of the most important applications of style awareness in human relations is the self-knowledge that we gain by recognizing our own perspective on the world. We begin to consciously identify our strengths and use the skills they give us. At the same time, we identify our weak areas and acknowledge the importance of compensating for them by changing our behavior or collaborating with other people.

This view is something which I can confirm from personal experience during this Masters programme and it was this positive personal experience, combined with its user-friendly format and comprehensive nature that led me to choose the MOI as the cognitive style measurement tool for this study. Having discussed the research relevant to styles, the next section considers the second ID variable used in this project.

2.4 Learning strategies

2.4.1 Historical background

In the 70s, researchers began to see that the holy grail of a one-fits-all-method of language teaching was an unrealistic expectation. This realisation, combined with the observation that some L2 learners were substantially more successful than others, led researchers to investigate the concept of the *good language learner* (GLL). One of these pioneers was Rubin, who argued that the key to success was using strategies (1975). Rubin's initial work inspired others to pursue the quest for the GLL, including Naiman et al, who undertook an empirical study of successful learners with the expectation that if the GLL

was clearly understood, then solutions could be offered to the less successful learners to help them improve. Although Naimen's study identified strategies as one of the characteristics of the GLL, it concluded that it was not strategies alone that ensured success (1978, cited in MacIntyre & Noels, 1994). Given the wide range of other ID variables, and the influence of learning context, this is not a surprising conclusion. However, what is significant, in my opinion, is the identification of strategies as a contributory factor in successful L2 acquisition.

However, research into strategies dwindled in the 90s as problems associated with defining the term were revealed. Rather than abandon the concept altogether, scholars turned to the related concept of *self-regulation*, which Dörnyei (2005, p. 191) defines as "the degree to which individuals are active participants in their own learning". This shift from "*product* (strategies) to *process* (self-regulation)" has, according to Dörnyei, allowed progress to be made by researchers, despite not fully understanding the process of self-regulation (2005, p. 191). In addition, as self-regulation encompasses learning strategies, this paradigm shift prevents the dismissal of the latter term for research purposes. Finally, this concept also appears to tie in with the idea of style awareness, as understanding ourselves as learners allows the adoption of strategies that meet our needs as individuals, making style awareness one component of the process of self-regulation. Before discussing alternative taxonomies of learning strategies in more detail, it is necessary to define strategies for the purpose of this study.

2.4.2 Strategies defined

According to Dörnyei (2005, p. 162), "learning strategies are immensely ambiguous phenomena". Ellis (2000, p. 533) agrees that definitions have tended to be "ad hoc and atheoretical"; however, he argues that a solution to the ambiguity is to list the main characteristics of strategies. Therefore, in order to define the term, I will review a variety of existing definitions (table 2.4) in an attempt to identify the main characteristics of strategies that these definitions imply.

Table 2.4: Definitions of learning strategies

Scholar	Definition of learning strategies
Brown (2007, p. 132)	[T]hose specific 'attacks' that we make on a given problem ... They are the moment-by-moment techniques that we employ to solve 'problems' posed by second language input and output.
Chamot (2005, cited in Brown 2007, p. 132)	[P]rocedures that facilitate a learning task. ... Strategies are most often conscious and goal driven.
Cohen (1998, p. 4)	[L]earning processes which are consciously selected by the learner. The element of **choice** is important ... because it is this which gives a strategy its special character.
Oxford (1999, p. 518, cited in Dörnyei, 2005, p. 163)	[S]pecific actions, behaviors, steps, or techniques that students use to improve their own progress in developing skills in a second or foreign language. These strategies can facilitate the internalization, storage, retrieval, or use of the new language.
Riding and Rayner (1998, p. 84)	An activity becomes strategic when it is particularly appropriate for the individual learner.
Reid(1995, p. viii)	[E]xternal skills that students use, often consciously, to improve their learning; we might describe them as study skills that students can be taught that can expand their existing learning styles.
Ehrman, Leaver and Oxford (2003, p. 315)	A given learning strategy is neither good nor bad; it is essentially neutral until it is considered in context. A strategy is useful under these conditions: (a) the strategy relates well to the L2 task in hand, (b) the strategy fits the particular student's learning style preferences to one degree or another, and (c) the student employs the strategy effectively and links it with other relevant strategies.

Therefore, from the above review, it is possible to identify six key features of strategies:

i. They involve the learner taking some form of "action".
ii. They are perceived by the learner as something that will make learning easier or more successful.
iii. They must be compatible with the task or learning context.
iv. They must be compatible with the learner's style.
v. They can be taught.
vi. They may help learners "stretch" their style.

Having identified the key characteristics of strategies from the range of definitions, the next section will discuss the types of learning strategies used by learners.

2.4.3 Taxonomies of learning strategies

Having identified strategies as a contributory factor in language learning success, researchers turned to the identification of the range of strategies used by students. Two such taxonomies were proposed by O'Malley and Chamot (1990) and Oxford (1990). As can be seen in figure 2.3, there is considerable overlap between the two lists, with the former offering only three categories to Oxford's six. In addition, figure 2.3's use of differing typefaces shows how the two taxonomies correspond with each other.

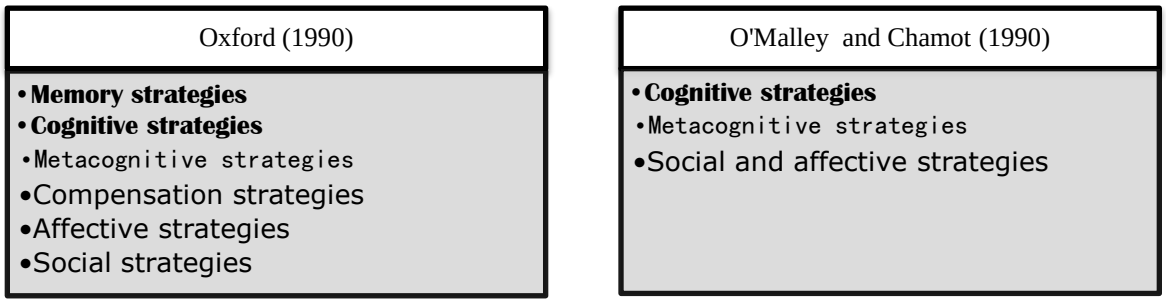


Figure 2.3: Taxonomies of language learning strategies (adapted from Dörnyei 2005)

Strategies can be divided into two major types: direct and indirect, with memory, cognitive and compensation strategies in the former category, and metacognitive, affective and social strategies in the latter. Figure 2.4 offers descriptions for each of Oxford's category of strategy.

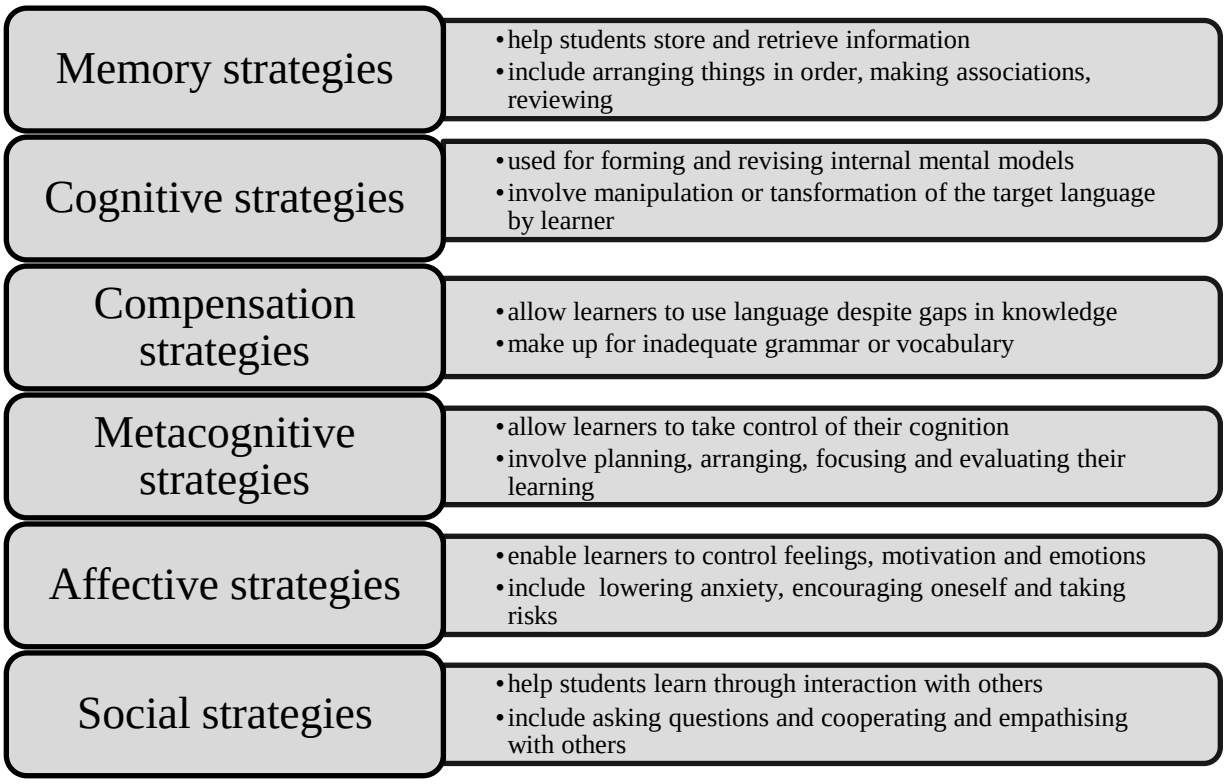


Figure 2.4: Oxford's categories of strategy (adapted from Oxford, 1990)

As Oxford (1990, p. 17) herself admits, differences in the categorisation of strategies are inevitable on the grounds that:

> ... there is no complete agreement on exactly what strategies are; how many exist; how they should be defined, demarcated, and categorized; and whether it is – or ever will be – possible to create a real, scientifically validated hierarchy of strategies.

Nevertheless, despite this uncertainty, research provides increasing evidence that strategy use aids L2 learning. Moreover, as Oxford (1990, p. 22) points out, teachers have indicated that her taxonomy is very helpful when examining strategies. She (1990, p. 22) concludes:

> This system provides, albeit in imperfect form, a comprehensive structure for understanding strategies. It includes a wide variety of affective and social strategies which are not often enough considered by strategy researchers, teachers, or students. It unites a whole range of compensation strategies, so confusingly separated in other strategy classification schemes. Finally, it organizes well-known metacognitive, cognitive, and memory strategies so that you can access them easily.

Therefore, for the purposes of this research, Oxford's taxonomy (appendix one) will be used. Having identified the taxonomy of strategies for this study, the instruments available for measuring learner's strategy use will be considered.

2.4.4 Assessing learners' strategy use

Dörnyei (2005) offers a comparison of four self-assessment instruments used to identify strategies adopted by learners, while Oxford and Burry-Stock (1995) compare six

instruments to Oxford's own Strategy Inventory for Language Learning (SILL). Table 2.5 below summarises them all.

Table 2.5: Strategy assessment instruments (adapted from Oxford & Burry-Stock, 1995 and Dörnyei, 2005).

Author/name of instrument	Details of instrument
Bialystok, (1981)	➢ 12 items; untitled rating scale ➢ Questions relating to extent to which strategies used in both oral and written tasks in communicative context ➢ No reliability or validity data available
Politzer (1983)	➢ 51 items; 1-4 rating scale ➢ Questions in three groups: general behaviours, classroom behaviours and interaction outside the classroom ➢ No reliability or validity data available
Politzer and McGroarty (1985) Behavior Questionnaire	➢ 66 items ➢ Questions in three groups: general behaviours, classroom behaviours and interaction outside the classroom ➢ Reliability figures of .51,.61 and .63
McGroarty (1987) Language Learning Strategy Student Questionnaire	➢ 56 items; 0-6 scale ➢ Questions in three groups: general behaviours, classroom behaviours and interaction outside the classroom ➢ No reliability or validity data available
Chamot et al (1987) Learning Strategies Inventory	➢ 48 item relating to 16 strategies; 1-4 scale ➢ Questions in five parts: listening in class, speaking in class, listening and speaking outside class, writing and reading ➢ No reliability or validity data available
Padron and Waxman (1988)	➢ 14 items; 1-3 scale ➢ Relates only to reading strategies ➢ No reliability or validity data available
Pintrich et al (2003) Motivated strategies for Learning Questionnaire	➢ 81 items; 7 point scale ➢ Items cover two broad areas: motivation and learning strategies ➢ Studies showed that reliability was, according to the authors, "relatively good" and it appeared to be reliable although no data given
Cohen and Chi (2002) Language Strategy Use Inventory and Index	➢ 89 items; 4 point rating scale ➢ 6 categories: listening strategy use, vocabulary strategy use, speaking strategy use, reading strategy use, writing strategy use, translation strategy use ➢ No cumulative rating scales
Tseng, Dörnyei and Schmitt (2006) Self-Regulating Capacity in Vocabulary Learning scale (SRCvoc)	➢ 20 items for vocabulary learning: 6 point rating scale ➢ 5 categories: commitment control, metacognitive control, satiation control, emotion control and environment control ➢ According to authors good psychometric properties
Oxford (1990) Strategy Inventors for Language learning (SILL)	➢ EFL version: 50 items; 5 point scale ➢ 6 categories: memory, cognitive, compensation, metacognitive, affective and social strategies ➢ Reliability data ranging between.92 and .94 for translated version and between .86 and .91 for the English version

As can be seen from the above table, the SILL offers excellent reliability figures. In addition, by the mid 90s it had been utilised in 40-50 major studies, involving an estimated 8000-8500 learners and, according to Oxford and Burry-Stock (1995, p. 4), "the SILL appears to be the only language learning strategy instrument that has been extensively tested and checked for reliability and validated in multiple ways". This is certainly true of the earlier measurement tools, but those published after 2000 also appear to offer adequate validity and reliability. The utility of the SILL has been endorsed by the many people who have employed it, with relationships being established between strategy and performance, as well as between strategy use and underlying learning styles (Oxford & Burry-Stock, 1995). Moreover, the six subsections were created using factor analysis, a statistical technique which allows large numbers of items to be grouped into categories, where all the items within each category show strong statistical correlations (Pallant, 2007). This means that each of the parts of the SILL clearly measures a different type of strategy, which is particularly important for this study.

However, Dörnyei (2005, p. 182) has criticised SILL's use of mean scores as "psychometrically" unjustifiable, arguing that a high score is achieved by using as many strategies as possible, leading him to conclude that "it is largely quantity that matters". He goes on to argue that this contradicts current strategy research, which suggests it is the quality of strategy use that is important. He, therefore, concludes that the SILL is useful for helping learners become more aware of their strategy use, but dismisses it as a research tool, providing the results of one study by Gardner, Tremblay and Masgoret (1997) as evidence for his argument (Dörnyei, 2005). Nevertheless, Oxford (1995, p. 7)

cites a range of different studies [1] that have shown the predictive ability of the SILL. Nonetheless, Oxford et al (2003, cited in Dörnyei, 2005, p. 183), in a recent re-evaluation of current research, concede that "[l]ow reported strategy use is not always a sign of ineffective learning. Also, reportedly high-frequency use of strategies does not guarantee that the learning is successful". However, Dörnyei (2005, p. 195) concludes:

> I am in agreement with Hsiao and Oxford's (2002) belief that learning strategies constitute a useful tool kit for active and conscious learning, and that these strategies pave the way toward greater proficiency, learner autonomy, and self-regulation.

In other words, it appears that scholars are not suggesting a dismissal of strategy research, simply an acknowledgement of its limitations. In my opinion, the SILL still provides an excellent means to determine the actual strategies used by learners, and, more importantly for this study, the strategies are grouped into categories that have been statistically proven to be linked. Furthermore, it depends on how researchers use the results provided by the SILL, which should determine whether they can be utilised to establish theories, with solid theoretical foundations. Moreover, the SILL is quick and easy to administer and can provide a non-threatening means of collecting a great deal of information about an individual's strategy use which can be directly compared with other participants in the research. Finally, as Brown (2007, p. 145) points out, SILL is a means of exposing learners to the concept of strategies, but it is teachers who should "assume the responsibility for seeing to it that learners are aided in putting certain strategies into practice". If this is the case, then the more research that links both styles and strategies

[1] Rossi-Le, 1989; Oxford and Nyikos, 1989; Phillips, 1990 and 1991; Chang, 1991; ; Mullins, 1991; Wen and Johnson, 1991; Green and Oxford, 1992; Oxford, et al, 1993; Park, 1994

will prove invaluable in this process. Therefore, despite its limitations, I have chosen to use the 50 item SILL, designed specifically for use with learners of English as a foreign language.

2.5 The Swiss context

Language learning is essential in multi-lingual Switzerland and English more than most. Table 2.6 shows the league table of languages spoken at home in Switzerland, where the top three languages, which are official languages, account for 90.6% of the population, while the fourth official language, Rumantsch, comes 10th and is only spoken by 0.5% of the population. English occupies 8th position, but is considered the most important of the foreign languages, not only because of its status as the global language of trade, but also because it provides an additional a medium of communication between the four language regions.

Table 2.6: League table of languages in Switzerland (Lüdi & Werlen, 2005, p. 7 + 11)

Language	% of population
1. German	63.7%
2. French	20.4%
3. Italian	6.5%
4. Serbian, Croatian	1.4%
5. Albanian	1.3%
6. Portuguese	1.2%
7. Spanish	1.1%
8. English	1.0%
9. Turkish	0.6%
10. Rumantsch	0.5%

Today's adult, L2 classroom in Switzerland has embraced communicative language teaching (CLT), accepting it as the way forward for the majority of ELT professionals. As part of CLT theory, the role of the teacher and learner has been redefined, where the former is a facilitator and collaborator, the latter is an active participant, who learns through the process of discovery, constructing a personal set of knowledge (Nunan, 1999, p. 7). This idea is consistent with the concept of self-regulation which places the responsibility for learning firmly in the hands of the learner. Within this context, style and strategy awareness are additional tools to assist in the process of self- regulation.

2.6 Conclusion

As illustrated in this chapter, links have been established between sensory perception and strategy use and between cognitive style and reading strategies. In addition, style awareness encourages learners to acknowledge both their strengths and weaknesses. Finally, research into styles- and strategies-based instruction (SSBI) has shown that strategies can be used to *stretch* one's style. As Riding and Rayner (1998, p. 83) point out "[i]t is the interaction of cognitive style and learning strategy which combines to influence an individual's approach to learning" and it is about this latter concept that educationalists require more information. To this end, the study that follows attempts to fill a gap in existing research by identifying the differences in the strategies utilised by successful and unsuccessful learners of differing cognitive style groups, in the hope that it will offer educationalists concrete advice for use in the CLT classroom, realising Riding and

Rayner's (1998, p. 7) desire to see the "inclusion of cognitive and learning styles in pedagogic practice".

3. METHODOLOGY

3.1 Introduction

As mentioned, this study grew from the desire to assist those learners who struggle to learn English, despite investing time and effort, and, being a concrete learner myself, I have attempted to provide research that L2 language teachers can utilise in the classroom to help those most in need. Therefore, this chapter will detail the method used in this project, including the research questions, participants, data collection and analysis methods, so that it can be easily used by other ELT professionals.

3.2 Research questions

This study will attempt to answer the following research questions:

i. Do successful/unsuccessful learners use similar strategies?

ii. Do students with the same cognitive style use the same strategies? Can patterns between the two variables be identified?

iii. If patterns exist, do the patterns differ between successful and unsuccessful learners?

iv. Do successful or unsuccessful learners use strategies that play to the strengths and counteract the weaknesses of their cognitive style?

3.3 Participants

Nineteen participants volunteered to take part in this study. They were all attending either First Certificate in English (FCE) or Certificate in Advanced English (CAE) examination classes, where I was the teacher. Initially, I considered conducting this research with participants in other examination classes, where I was not teaching, as this would increase the number of respondents, which, in turn, would have had a beneficial effect on the reliability of the conclusions drawn from the data. However, I decided that using my classes, alone, would prevent data being distorted by the differing teaching styles. Research by Wallace and Oxford (1992, cited in Eliason, 1995, p. 27) has shown that a mismatch between teacher-student styles can affect performance, while other studies have yielded mixed results (Eliason, 1995). It was felt that if teaching style can affect learner performance, then by collecting data from more than one instructor, an additional variable would be added to the study, making the establishment of links between the two variables more difficult.

Data collection was set to follow the completion of the course, so it could not influence the results. This was based on research by Bowie (1998) which concluded that style awareness not only improved learners' understanding of their strengths and weaknesses, but also reinforced their confidence, both of which may affect success at learning.

The age breakdown of the participants (table 3.1) shows that nearly 70% of the participants are under-thirty five, which reflects the composition of my classes. All

participants have Swiss-German as their L1, and although the groups comprised of both male and female participants, the majority are female, making up 79% of the total population.

Table 3.1: Age breakdown of participants

Age Category	Number of participants	Percentage of total
Under 25	7	36.9%
26 to35	6	31.6%
36 to 45	4	21.0%
45 plus	2	10.5%
Total participants	19	

In addition, tables 3.2 and 3.3 show the importance of English to the participants, and their use of English in daily life.

Table 3.2: Importance of English in participants' lives

Importance of English	Number of participants	Percentage of total
Essential	6	31.6%
Very important	7	36.9%
Important	4	21%
Quite important	1	5.25%
Unimportant	1	5.25%

Table 3.3: Use of English by participants in daily life

Use of English in daily life	Number of participants	Percentage of total
Daily	8	42.1%
Once a week	4	21%
Once a month	3	15.9%
Rarely	4	21%
Never	0	0%

As can be seen, 89.5 % of participants viewed English as important to them which is reflected in the fact that 63.1% used English either daily or weekly. Interestingly, of the four people who rarely use English in their daily life, one viewed English as essential, two as very important, and one as important. This may be due to the fact that knowledge of English can result in higher earnings in Switzerland (Grin, 2001).

3.4 Qualitative vs. quantitative research

Brown and Rogers (2002, p. 11) provide a useful model (figure 3.1) of the types of research available to scholars, starting with two categories: *primary* and *secondary*. The former involves new or original data, while the latter utilises existing data. This project involves primary research as the data has been generated in my classroom. Primary research is further subdivided into *qualitative*, *survey* and *statistical* research. The former involves non-statistical data, while the latter comprises of principally statistical data. Survey research techniques can be used, according to Brown and Rogers, for either qualitative or statistical research (2002, p. 12).

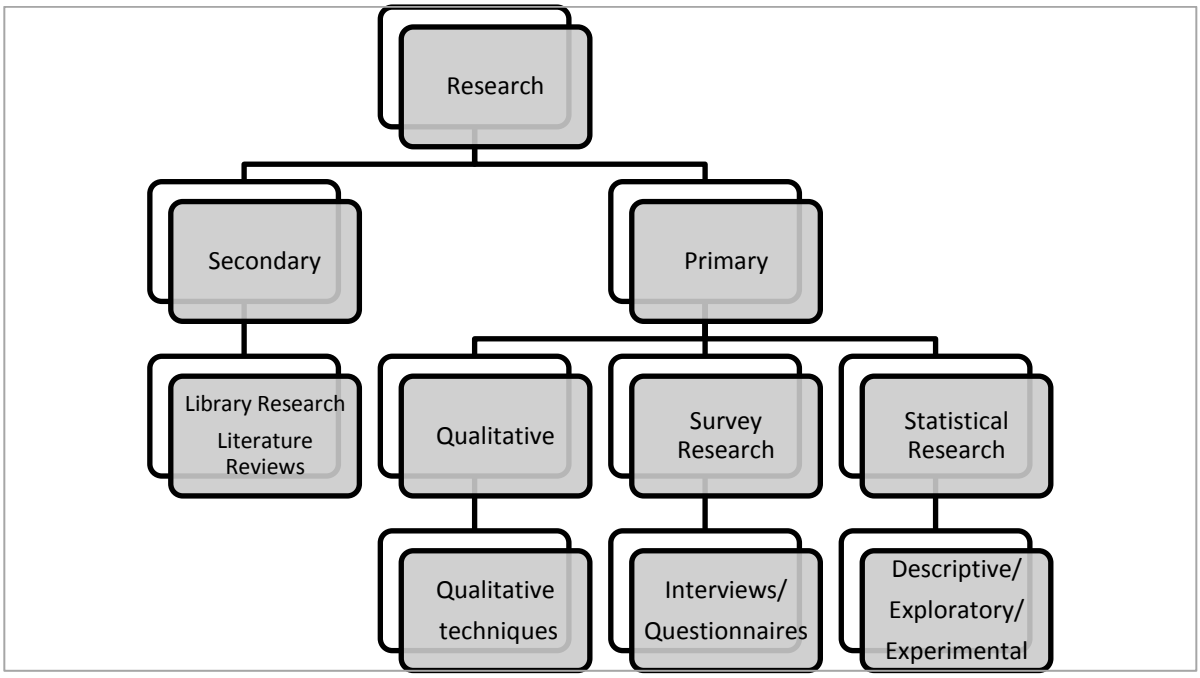


Figure 3.1: Broad categories of research (Brown and Rogers 2002)

Similarly, Dörnyei (2007, p. 24) defines *quantitative* research as involving "data collection procedures that result primarily in numerical data which is then analysed primarily by statistical methods", while he suggests that in *qualitative* research "data collection procedures ... result primarily in open-ended, non-numerical data which is then analysed primarily by non-statistical methods". Finally, he defines *mixed methods* research as a combination of elements of both qualitative and quantitative research, either at the data collection or analysis stage. Using Dörnyei's categorisations, this study uses a mixed methods approach combining quantitative data collection, as the results from the surveys are provided in numerical form and qualitative data analysis techniques. The rationale for my choice of measurement tools will be discussed further in sections 3.5.1 to 3.5.3 and my choice of data analysis methods in section 3.6.

3.5 Data collection methods

The first stage of data collection was to establish whether the participants' level of English had improved. This involved administering an entry test to determine the level of the participants' English at the beginning of the course, using the Oxford Placement Test (OPT), which aligns itself to the CEFR or Common European framework of reference for languages (Council of Europe, 2010, appendix six). The level of the participants at the end of the course was determined by their results in the FCE or CAE examinations, again using the CEFR for ease of comparison.

On completion of their course, participants were invited to attend an additional evening for data collection. The data collected included a background information questionnaire (BIQ, appendix two), Bowie's mind organisation index © (MOI, appendix three) and Oxford's Strategy Inventory for Language Learners (SILL, appendix four). Prior to the evening, the data collection documentation was piloted, which, according to Dörnyei (2007), is essential to ensure that the data collected would truly reflect the participants' views. This was achieved using students with a slightly lower level than the FCE participants, on the grounds that if those students could understand the questions and instructions, then so too would the participants. Trialling of the BIQ and SILL found that the wording was appropriate for the level. However, trialling of the MOI revealed potential problems with the wording of the instructions and some of the questions. This was resolved by providing German translations where difficult words occurred in the questions, and by using simpler language for the instructions.

On the evening, the purpose of the research was explained and, as part of BIQ, permission was requested to use the information obtained for the purposes of my research, with confidentiality being assured. The documents were completed by each participant, and data for the latter two items was entered directly into a computer to allow students to immediately receive their results. Having completed all three documents, the characteristics of the different cognitive styles (appendix five) were then explained and the strengths and weaknesses of each position (Table 4.5, p. 58) were discussed. The results of the SILL and how this information could help their L2 learning were also discussed. The documents were all collected and emailed to the participants, so that they had a record of their cognitive style, its strengths and weaknesses, and the strategies they used. Finally, the names of the students were entered into a draw offering a prize for one participant, which is in-line with Dörnyei's (2007, p. 67) advice that:

> We should never forget that by spending time and energy helping us they [the respondents] are doing us a favour and it is our responsibility to make the cost benefit balance as equitable as possible.

Having outlined the components of the research, I will discuss each briefly in turn.

3.5.1 Background information questionnaire

The two-page BIQ had three main goals:

i. To explain the purpose of the research.

ii. To gain permission to use the data collected and assure anonymity.

iii. To provide background information about the participants, for use in data analysis.

Dörnyei's recommends the length of questionnaires be restricted to two pages when the information provided is of little interest to the participants, while up to four pages if it is considered interesting (2007). Thus, the BIQ, including instructions, consisted of two sides, as the information provided was principally for research purposes.

3.5.2 Mind organisation index ©

This cognitive style measurement tool was initially chosen because I personally found its style categories very revealing and helpful. In addition, it provided not only a ready-made measurement tool using sentences about participants actual behaviour, but it also offered learning characteristics of the different types, including their strengths and weaknesses. This full package meant that I could offer an immediate benefit to the participants involved, which, Dörnyei (2007) points out, is often a neglected part of classroom research. However, as the MOI is copyrighted and not available in published form, it was first necessary to obtain permission for its use from April Bowie's family. This was achieved by means of email in February 2010, on the proviso that Bowie was acknowledged throughout. As it was deemed that the participants' would be interested in finding out about their cognitive style, length of the MOI was a little longer at three pages (Dörnyei, 2007).

3.5.3 Strategy inventory for language learners

As mentioned in section 2.4, the SILL was chosen for three reasons:

i. It was comprehensive in nature.

ii. It had been widely used in research projects.

iii. It was quick and easy to administer.

The document was obtained from the appendix of Oxford's (1990) book and the layout was amended to make it more visually appealing, which according to Dörnyei (2007, p. 110) "is half the battle in motivating respondents to produce reliable and valid data". Again, as I expected the participants to be interested in the strategies they used, the length was allowed to extend to four pages.

3.6 Data analysis methods

The data analysis methods were chosen for two reasons: firstly, the small number of respondents meant that statistical analysis would be unlikely to provide meaningful data and secondly, in my opinion this study is, to use Dörnyei's (2007, p. 37) term, "emergent" in nature; it commenced with a theory and it has been necessary to examine each individual case carefully with the assistance of the "researcher's subjective sensitivity" (Dörnyei, 2007, p. 28) to establish patterns, thereby requiring qualitative data analysis. Data for each respondent was entered into two excel sheets, one with the average scores for each of the *SILL strategy sections*, and one with average scores for the *SILL individual questions*. The two documents were then sorted using the following criteria.

3.6.1 Amount respondents improved

The amount participants improved was given a numerical value from one to four as follows:

- One: respondent's CEFR level was lower than at start of course.
- Two: respondent's CEFR level was the same as at start of course.
- Three: respondent's CEFR level had increased by one band since start of course.
- Four: respondent's CEFR level had increased by two bands since start of course.

The two excel documents were then sorted by improvement and graphs were created to facilitate clear visual comparisons.

3.6.2 Cognitive style types

The respondents with the same cognitive styles were also grouped together and then further sorted by the amount they had improved. The scores of the successful and unsuccessful participants were averaged and then compared using both Excel documents. These too were produced graphically for ease of comparison.

3.7 The research design process

As part of the research design process, it was necessary to ensure that problems with the research design were considered. To do this, potential problems were identified and their impact minimised by careful research planning. The first problem related to the fact that

data was based on learner's reporting their own behaviour. Given this, it is possible that participants responded in a way they felt I wanted rather than their actual behaviour. In an attempt to avoid this, both the verbal and written instructions explicitly highlighted that there were no right or wrong answers and that I was not judging them. A second problem, as discussed in chapter two, was Dörnyei's (2005) critic of the SILL, suggesting that a high score on the SILL is not a predictor of success. For this reason, success at language learning was determined using entrance and exit tests, aligned to the CEFR, and the SILL was simply used to determine the learning strategies used by respondents. In addition, the analysis of data did not rely solely on the average scores of each of the SILL's six categories of strategy, but used the data relating to the individual questions as well, to establish patterns of strategy use by differing cognitive style groups and successful and unsuccessful learners.

Having outlined the methodology used in this study, the next chapter will detail the results of the study.

4. FINDINGS

4.1 Introduction

This chapter will detail the results of this project. It will begin with an outline of the general findings relating to both cognitive style and learning strategies and then address the specific research questions and examine the results for each cognitive style group in relation to these.

4.2 Cognitive style results

As can be seen in table 4.1, 16% of the participants were power planners (PPs), 21% radical reformers (RRs), 47% flexible friends (FFs), 5% expert investigators (EIs) and 11% had equal scores for expert investigator/radical reformer (EI/RR). In addition, thirteen of the nineteen respondents (68.5%) were successful learners.

Table 4.1: Breakdown of participants by cognitive style

	PP	RR	FF	EI	EI/RR
Number of participants	3	4	9	1	2
% of participants	16	21	47	5	11
Successful learners	2	2	6	1	2
Unsuccessful learners	1	2	3	0	0

Interestingly, both the EI and EI/RRs were successful learners, which could suggest that either the author's teaching style favours this cognitive style, or that it is advantageous to be an expert investigator in an L2 classroom. This latter idea, in my opinion, seems logical as the EI learns well through the abstract in a structured environment, which is

consistent with most classrooms. In addition, the EI/RRs are both successful. This too could be logical as these learners display a preference for all four elements of the two bipolar continua, allowing them to learn in both concrete and abstract situations and in an ordered and imaginative manner, making them the most flexible learners. Moreover, the high percentage of radical RRs that are unsuccessful (50%) implies that RRs find classroom learning more challenging, as its very nature is more restrictive, conflicting with the RRs needs.

4.3 Strategy results

Table 4.2 shows the participants' SILL scores, sorted from highest to lowest for the whole SILL test. The scores of the successful participants are shown in white script on a grey background, while those of unsuccessful learners are shown in black script on a white background. As can be seen, the majority of the upper half of the table shows successful learners and the majority of the lower half of the table shows unsuccessful learners. However, participant ten had the fifth highest whole SILL score of 3.46, despite being an unsuccessful learner. Equally, the lowest and the third lowest SILL scorers were both very successful learners. These results seems to confirm Dörnyei's (2005, p. 182) suggestion that it is the "quality of the employed strategies that is important".

Table 4.2: Highest to lowest whole SILL scores, showing successful and unsuccessful learners

			Types of strategies						
ID	IMPROVE	Style	Memory	Cognitive	Compensation	Metacogntive	Affective	Social	Whole SILL
16	3	RR	3.33	4.50	3.83	5.00	2.83	3.67	4.00
11	4	EI/RR	3.22	4.00	3.67	4.33	3.67	4.50	3.90
18	3	FF	3.00	3.36	4.17	3.89	2.83	3.83	3.48
15	4	EI/RR	3.11	3.07	4.33	4.00	3.00	3.67	3.46
10	2	RR	3.56	3.50	2.17	4.00	2.50	4.67	3.46
9	4	FF	3.11	3.50	4.17	3.56	2.83	3.67	3.46
5	4	PP	3.00	3.00	3.50	4.00	3.00	4.33	3.40
6	4	PP	2.67	3.43	4.17	3.56	2.50	4.17	3.38
8	4	FF	3.00	3.64	3.82	3.44	3.17	2.50	3.32
3	3	FF	2.44	3.64	3.17	3.56	3.00	3.83	3.30
2	3	RR	3.11	3.14	3.33	3.78	2.83	3.17	3.24
19	2	RR	2.78	3.79	2.83	4.00	1.00	3.00	3.10
17	3	FF	2.44	3.14	3.83	3.67	2.17	3.33	3.10
12	2	FF	2.56	3.00	4.17	2.11	2.17	3.50	2.86
4	1	PP	1.89	2.86	4.33	3.44	2.50	2.33	2.86
14	2	FF	2.00	3.14	3.83	2.67	2.17	3.30	2.83
13	4	EI	2.78	2.71	3.67	3.11	2.17	2.33	2.80
7	2	FF	2.22	2.67	3.17	2.44	3.17	2.50	2.64
1	4	FF	1.67	2.86	2.50	2.78	2.33	3.17	2.56

Successful learners

Unsuccessful learners

4.4 Do successful/unsuccessful learners use similar strategies?

The first of the research questions is best answered by comparing the average scores of successful and unsuccessful learners for the *SILL strategy sections* and by taking the mean scores of successful and unsuccessful learners for the *individual SILL questions* and making comparisons between the two groups.

4.4.1 SILL strategy sections

Table 4.3 shows the average SILL scores for both successful and unsuccessful learners in each of the six categories.

Table 4.3: Average SILL scores for successful and unsuccessful learners

	Successful learners	Unsuccessful learners
Memory Strategies	2.84	2.50
Cognitive Strategies	3.38	3.16
Compensation Strategies	3.70	3.42
Metacognitive Strategies	3.74	3.11
Affective Strategies	2.79	2.25
Social Strategies	3.55	3.22

When these figures are represented graphically (figure 4.1), it can be clearly seen that both successful and unsuccessful learners in my classroom use similar strategies, however, unsuccessful learners use marginally fewer strategies than successful ones.

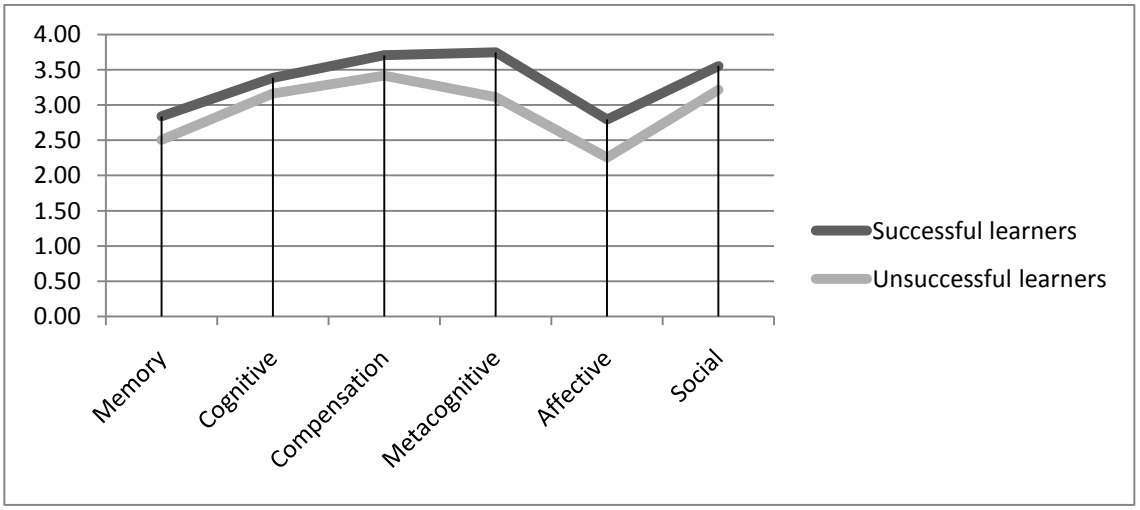


Figure 4.1: Average SILL scores by category for successful and unsuccessful learners

This supports Oxford's (1995) original view that successful L2 learners do indeed have higher average SILL scores.

4.4.2 Individual SILL questions

However, if one analyses the average scores of successful and unsuccessful learners for each of SILL's 50 questions, it becomes clear that the graph in figure 4.1 oversimplifies learners' strategy use. Figure 4.2 illustrates that although the strategies used by successful and unsuccessful learners frequently follow similar patterns with the former generally displaying a higher strategy score than the latter, there are a number of places where there are distinct variances in strategy use (questions 3, 6, 7, 35, 37, 41 and 47), and, even some cases where unsuccessful learners use a strategy more often than successful learners (questions 1, 5, 13, 21, 22, 50), although the difference in mean scores in these cases are relatively minor. These results seem to confirm the view that it is indeed the quality rather than the quantity of strategies that aid L2 learning (Dörnyei, 2005).

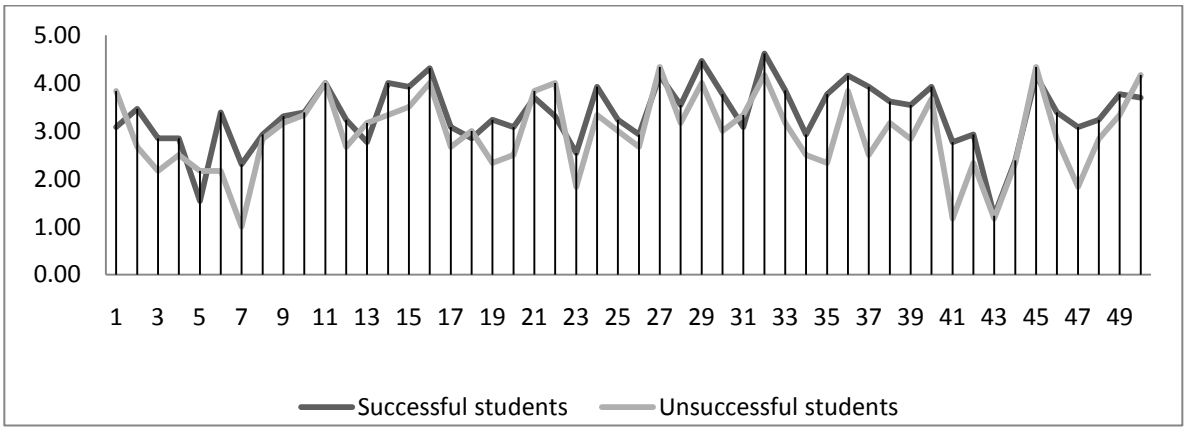


Figure 4.2: Individual strategies used by successful and unsuccessful learners

It is worth remembering at this stage Dörnyei's (2005, p. 182) criticism of SILL's use of mean scores, as examples of the problems it causes are evident in the above figure. For example, with question seven, the difference in mean scores between successful (2.71) and unsuccessful (1.00) learners is 1.31, but this difference arises because one learner has assigned a score of five to this strategy. A similar situation occurs with question 41, which asks about rewarding oneself when learning English. The average scores for successful and unsuccessful learners were 2.77 and 1.17 respectively. Although the difference between the scores is quite high this is due to a few successful learners always using this strategy as part of the mix of strategies that suit them as individuals, confirming Chamot and Rubin's (1994, p. 772) view that:

> ... the effective use of strategies may vary from one good language learner to another (Laviosa, 1991), indicating that the good language learner cannot be described in terms of a single set of strategies but rather through the ability to understand and deploy a personal set of effective strategies.

This view is also confirmed when one compares individual respondent's scores to each SILL question. As a graphic representation of all nineteen respondents' answers to the each of the 50 SILL questions would be difficult to decipher, I have chosen to compare SILL scores given by three random pairs of participants in the study (figure 4.3). As one can see, the curves are substantially different in each case although there are instances where similarities occur. In my opinion, this, once more, supports Chamot and Rubin's view.

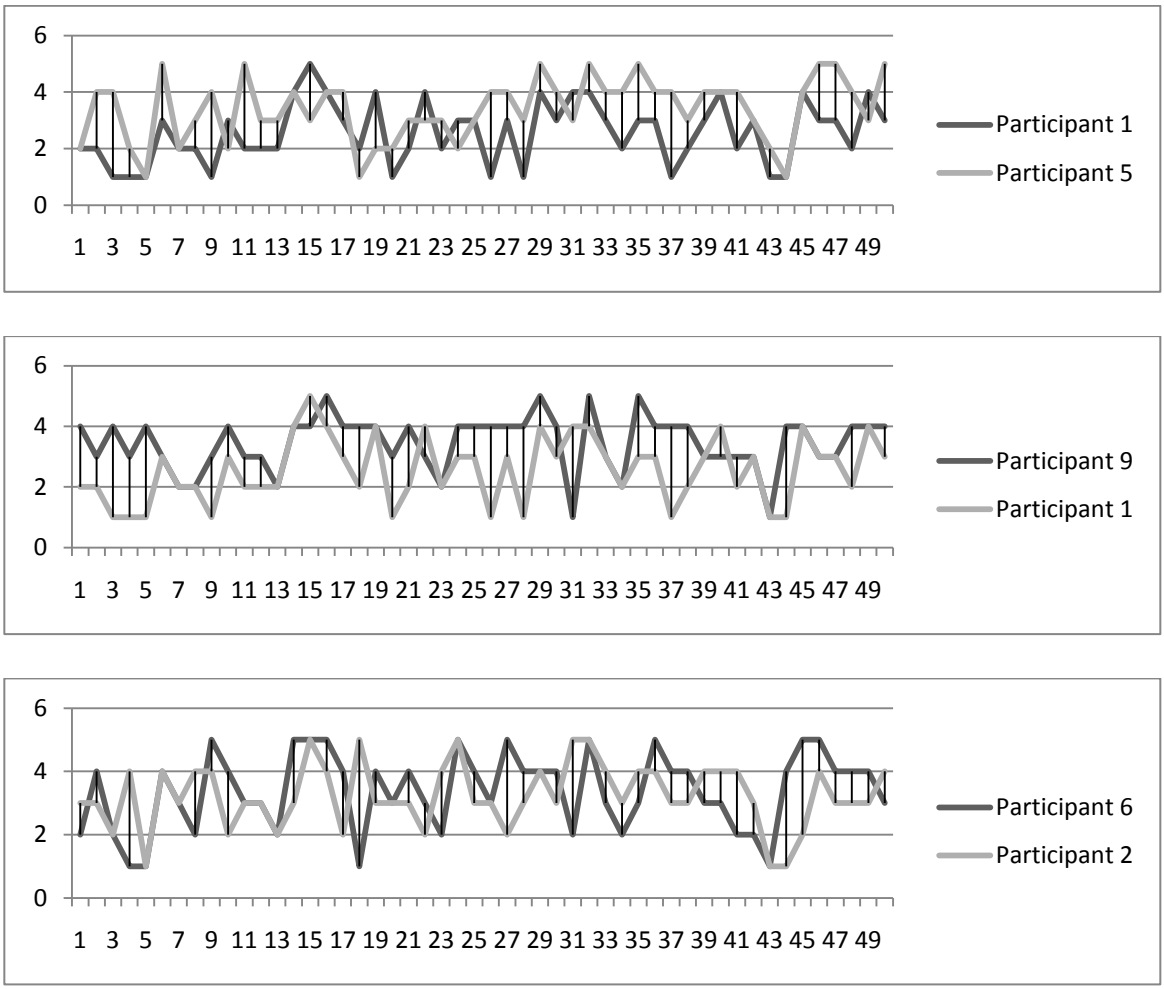


Figure 4.3: SILL scores for individual questions compared

I believe, the most significant differences between successful and unsuccessful learners can be seen in the results for question 37 (table 4.4), which asks whether the learner has clear goals. Here, 85% of successful learners allocated a score of 4 or above for this strategy, whereas 84% of unsuccessful learners assigned a score of 3 or below. From these figures, it appears that setting clear goals is a significant factor in success in my classroom.

Table 4.4: Results for SILL question 37 for successful and unsuccessful learners

SILL Score	Successful Learners No.	Successful Learners %	Unsuccessful Learners No.	Unsuccessful Learners %
5	3	23 %	0	0%
4	8	62 %	1	16%
3	1	7.5%	2	34%
2	0	0%	2	34%
1	1	7.5%	1	16%

To sum up, although the mean scores of each of SILL's six categories of strategy show that successful and unsuccessful learners in this study use similar strategies, but with the former using a greater number than the latter, it is the results of the individual questions that offer greater insight into the strategy use of the participants, as these reveal the individual nature of strategy use.

4.5 Do students with the same cognitive style use the same strategies? Can patterns be identified?

In order to answer this research question, I will once again examine the results in relation to the *SILL strategy sections* and the *individual SILL questions* for each of the cognitive style types. Unfortunately, there was only one EI among the nineteen participants so it is impossible to draw any conclusions regarding the strategy use of this cognitive style group, as no comparisons can be made. Therefore, only the other cognitive style groups will be discussed further in this section.

4.5.1 Power planners

Figure 4.4 shows the average SILL scores of the three PPs and, as can be seen, there is a distinct similarity between the curves for these three respondents, although the greatest difference can be seen in social and memory strategies. However, when one examines the answers to the individual SILL questions for PPs (appendix seven, figure one), it again becomes apparent that the grouping of strategies does indeed simplify the picture, as there are questions where strategy use demonstrates both similarities and significant differences. Nevertheless, like the SILL strategy categories, the questions with the greatest discrepancies are in the social and memory categories. Should these differences occur because of a difference in strategy use by successful and unsuccessful learners, it could be argued that social and memory strategies are particularly important to successful learning for this group. This will be addressed in section 4.6.1 and 4.7.1.

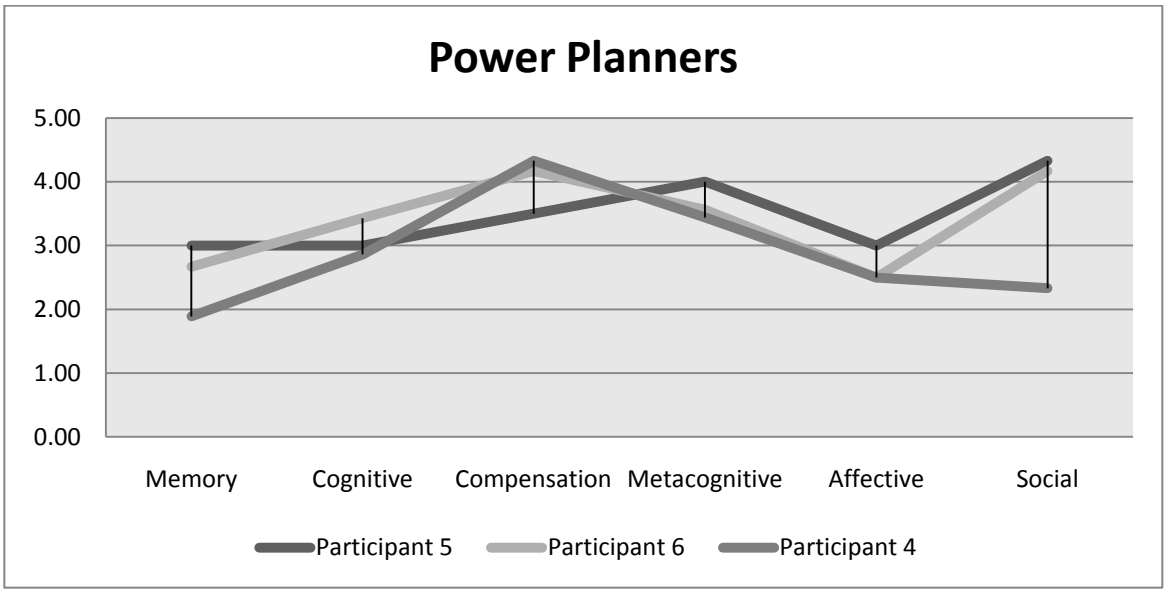


Figure 4.4: Mean SILL scores for power planners

4.5.2 Radical reformers

Figure 4.5 shows the average SILL scores of the four RRs. Here again there appears to be similarities between the types of strategies used by RRs, with the greatest differences being evident within the compensation and affective categories. Nevertheless, analysis of the individual SILL questions (appendix seven, figure two) reveals the individual nature of strategy use. Once more, should these variations occur because of a difference in strategy use by successful and unsuccessful learners, it would suggest that compensation and affective strategies are particularly important to successful learning for this group. This will be discussed further in section 4.6.2 and 4.7.2.

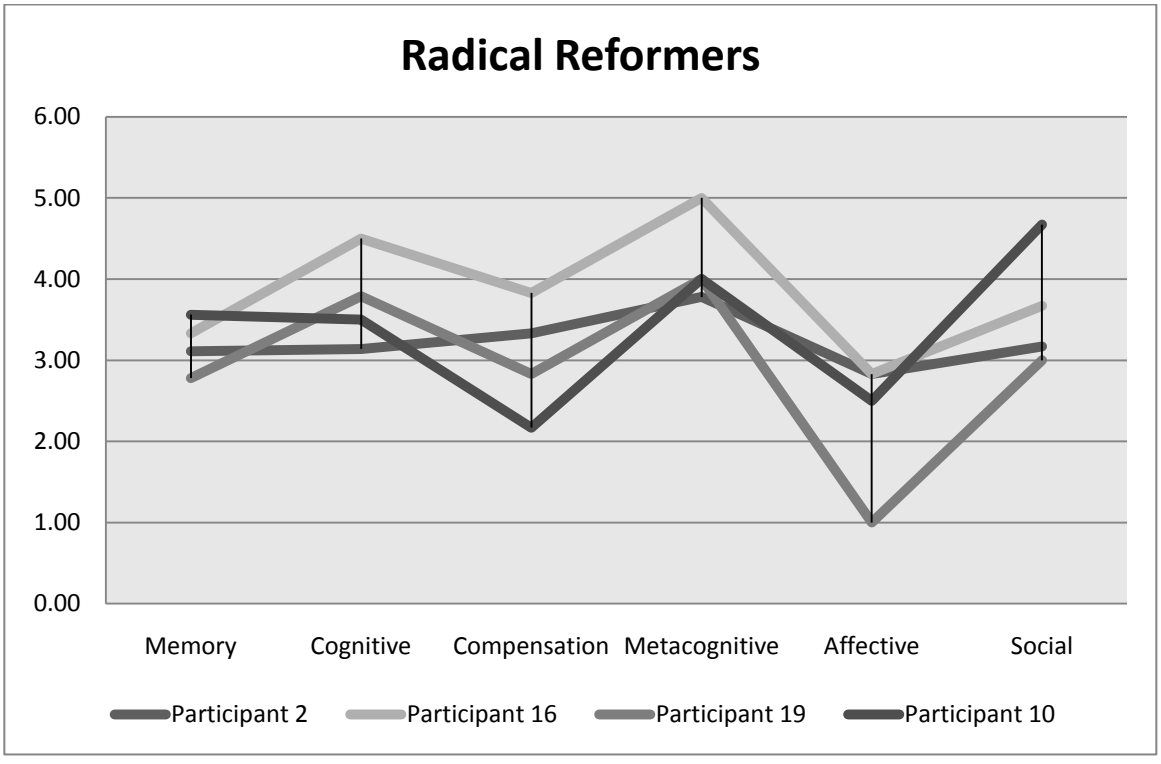


Figure 4.5: Mean SILL scores for radical reformers

4.5.3 Flexible friends

Figure 4.6 shows the average SILL scores of the nine FF participants. This graph illustrates that FFs do not appear to demonstrate a consistent pattern of strategy use, which is more evident with the RRs and PPs. Equally, the curves for the individual SILL questions (appendix seven, figure three) also demonstrate considerable individuality. This may be due to the fact that this group of learners choose strategies in a very personal way depending on the people they have worked with, not only in my classroom but in their past learning experiences, once more making Chamot and Rubin's view that successful individuals find strategies that suit them particularly applicable to this type of learner.

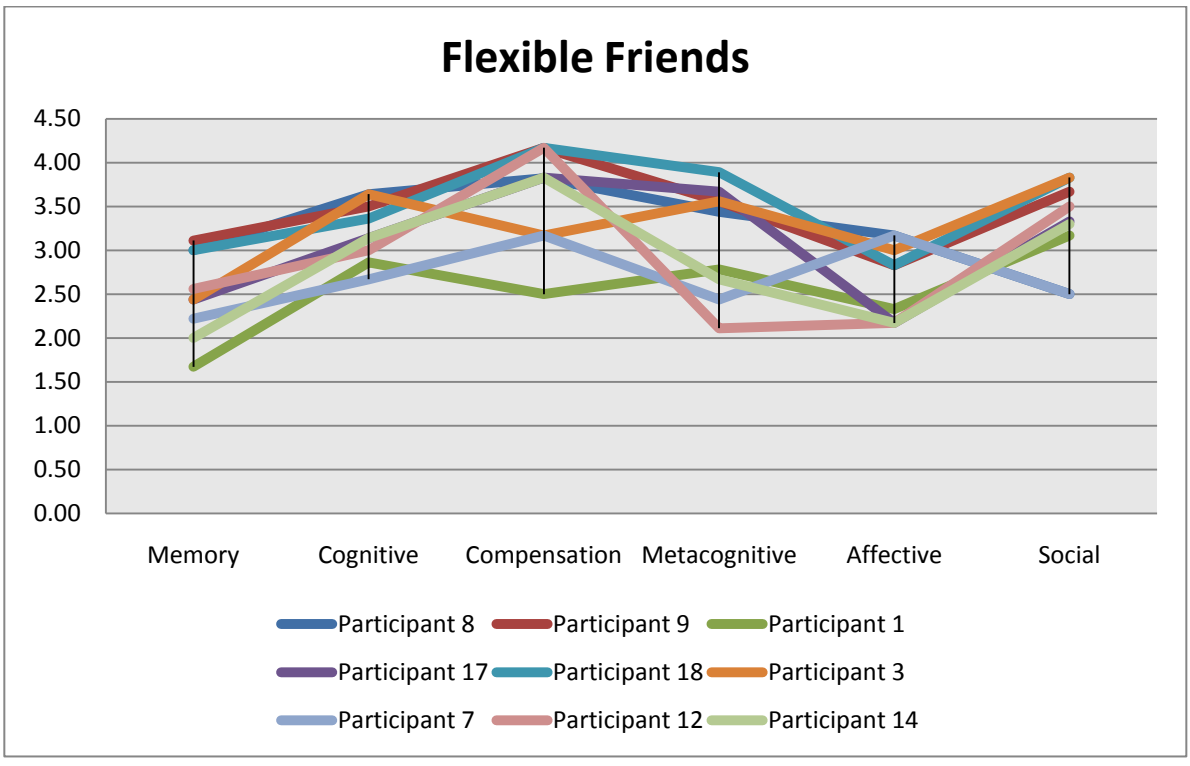


Figure 4.6: Mean SILL scores for flexible friends

4.5.4 Expert investigators/radical reformers

Figure 4.7 shows the two EI/RR respondents' average SILL score curves. It demonstrates that these two learners exhibit similarities in their pattern of memory, metacognitive, affective, and social strategy use, but display differences in their cognitive and compensation strategy use. Furthermore, these respondents' scores for the individual SILL questions (appendix seven, figure four) exhibit a greater resemblance to each other than other cognitive style groups.

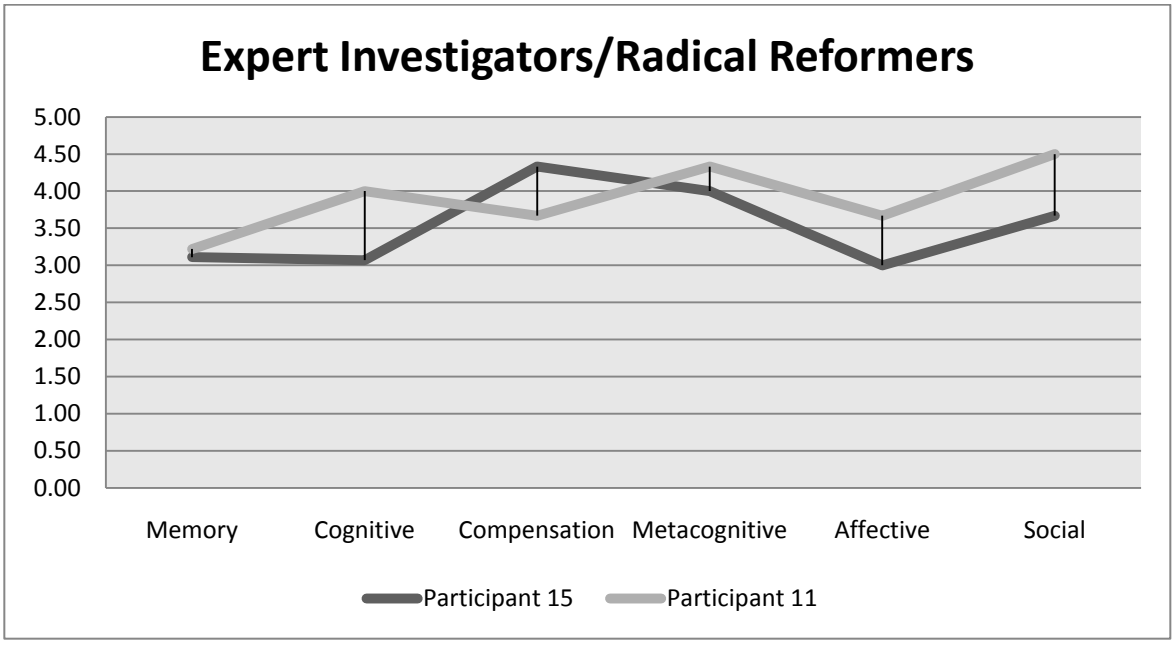


Figure 4.7: Mean SILL scores for expert investigators/radical Reformers

To sum up, PP, RR and EI/RR learners appear to display some similarities in their strategy use, however, these learners still exhibit some degree of variety of the actual

strategies used within each category of strategy, while the FF learners seem to be extremely individualistic in their strategy use.

4.6 Do the patterns within the cognitive style groups differ between successful and unsuccessful learners?

Before examining the SILL sections and individual SILL questions for each cognitive style group in detail, I will compare the scores for the whole SILL (figure 4.8). As can be seen, in the three cognitive style groups with both successful and unsuccessful learners, the successful learners consistently demonstrate a higher mean SILL score than their unsuccessful counterparts with the same cognitive style. Surprisingly, the successful EI uses a similar amount of strategies as both the unsuccessful PPs and FFs and considerably less than the unsuccessful RRs. This appears to confirm Chamot and Rubin's (1994) research that individuals find the set of strategies that works for them. Moreover, I would argue that, this data suggests that there are similarities between the quantities of strategies used by each cognitive style group with successful learners using more strategies than unsuccessful learners.

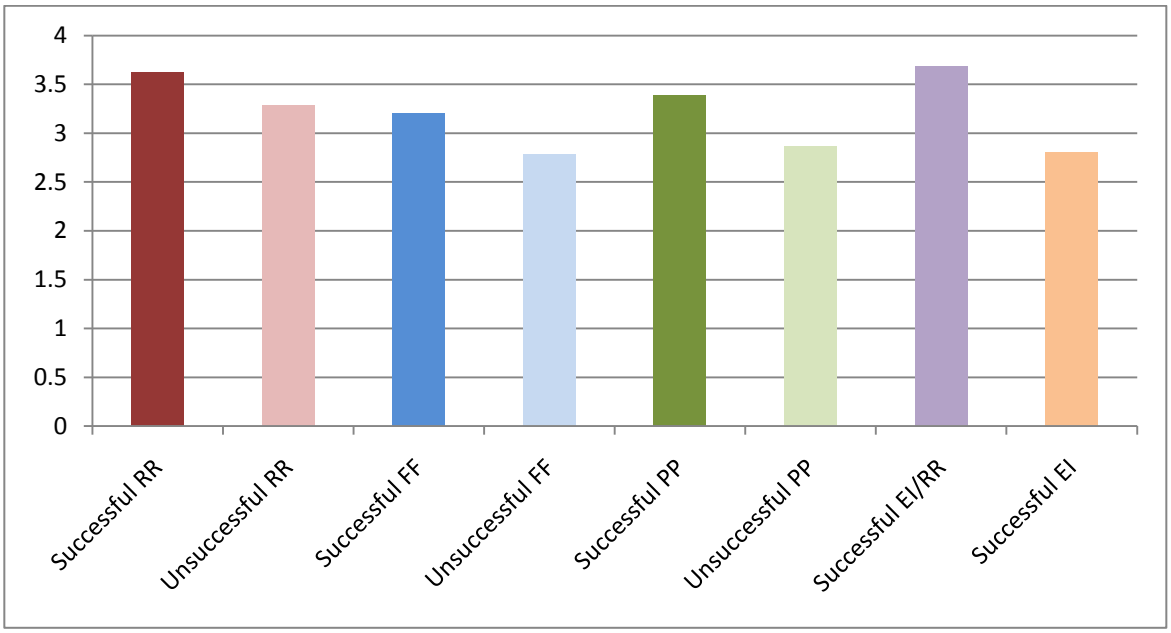


Figure 4.8: Whole SILL scores for successful and unsuccessful learners for each cognitive style

In order to understand these differences more clearly, it is necessary to examine the scores for the *SILL strategy sections* as well as the scores of the *individual SILL questions* for both successful and unsuccessful learners for each of the cognitive styles, as it is these which, in my opinion, reveal the most interesting results. Nevertheless, as can be seen from the above figure, the EI/RRs and the EI were all very successful learners, so no comparisons can be made between successful and unsuccessful learners and, therefore, will not be discussed further in this section.

4.6.1 Power planners

With PPs (figure 4.9) there is little difference between the SILL scores for cognitive, compensation, metacognitive and affective strategies used by successful and unsuccessful

learners. However, there is a distinct difference between the SILL scores for both memory and social strategies.

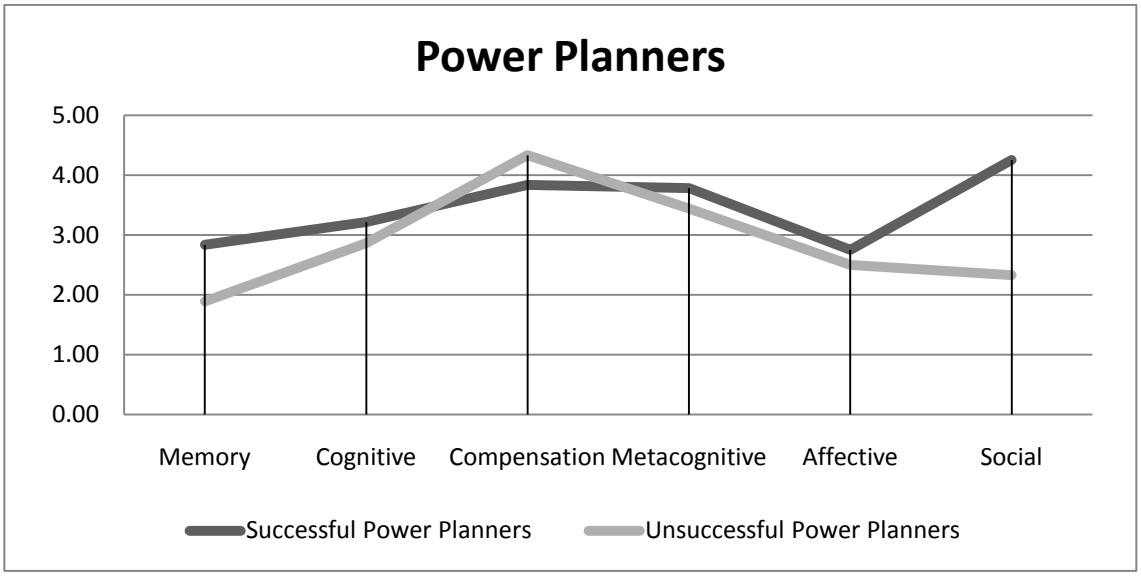


Figure 4.9: SILL scores for strategy sections for successful and unsuccessful power planners

Furthermore, when one examines the scores for each of the individual SILL questions with a difference of two or more between successful and unsuccessful PPs (figure one, appendix eight) there are eight questions of interest. Questions 2, 3, 6 and 9 are memory strategies, while questions 41, 46, 47 and 48 are social strategies, which seem to explain the differences in scores seen in the SILL sections shown in figure 4.9. In my opinion, this data appears to confirm that it is not cognitive, compensation, metacognitive or affective strategies that lead to success for PPs, rather their use of memory and social strategies that holds the key to their improved performance. This will be discussed further in section 4.7.1.

4.6.2 Radical reformers

Firstly, both successful and unsuccessful RRs (figure 4.10) appear to use a similar amount of memory, cognitive, metacognitive and social strategies, whereas successful RRs appear to use a greater number of compensation and affective strategies.

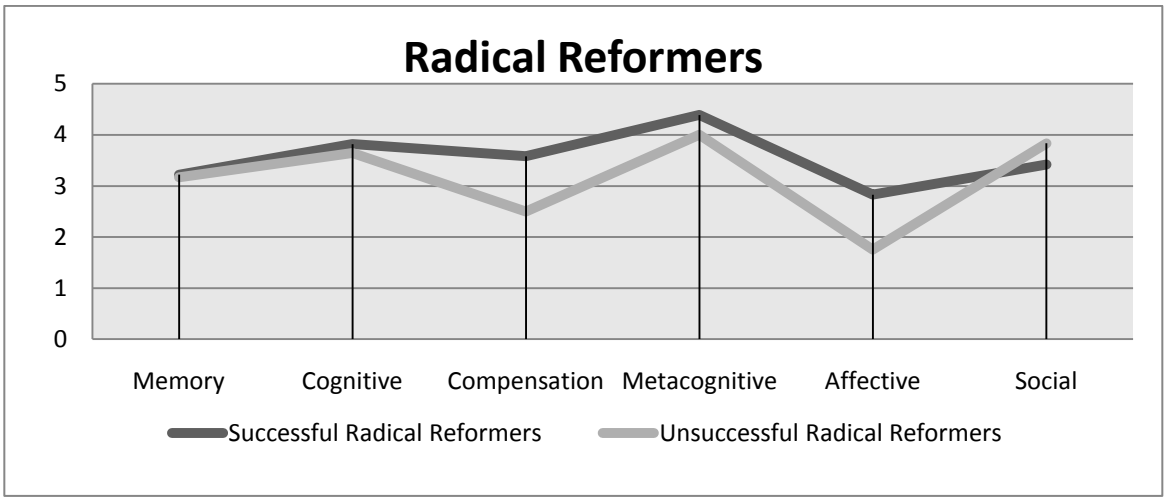


Figure 4.10: SILL scores for strategy sections for successful and unsuccessful radical reformers

Furthermore, when one examines the scores for the individual SILL questions with a difference of two or more between successful and unsuccessful RRs (figure two, appendix eight) there are seven questions to examine. Questions 5 and 6 are memory strategies, questions 24 and 26 are compensation strategies and questions 39, 41 and 42 are affective strategies. These significantly higher scores could account for the higher mean score in those categories. However, the scores for questions five and six negate each other and, therefore, there is only a minimal difference in the mean scores for memory strategies. These results suggest that the key to successful learning for this cognitive style group also

lies in their use of memory, compensation and affective strategies. This will be discussed further in section 4.7.2

4.6.3 Flexible friends

Successful and unsuccessful FFs appear to demonstrate little difference in scores for memory, cognitive, compensation, affective and social strategies (figure 4.11). However, when one examines the scores for metacognitive strategies there appears to be a greater difference between the two groups.

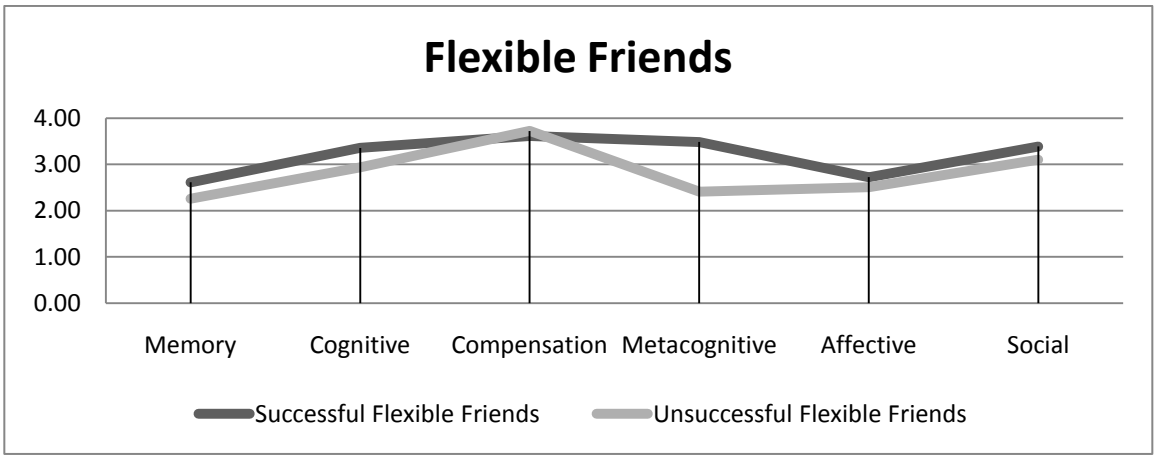


Figure 4.11: SILL scores for strategy sections for successful and unsuccessful flexible friends

In addition, on examination of the individual SILL questions (appendix eight, figure three), there are four questions of significance. Questions, 30, 35 and 37 are all metacognitive strategies, which allow learners to organise their learning, while question 47 is a social strategy. This data again implies that metacognitive and social strategy use appears key to success for FFs. This will be discussed further in section 4.7.3.

In conclusion, from these findings it is possible to argue that although patterns exist within the cognitive style groups, there does appear to be certain types of strategy that are important for success to each of the cognitive styles and it is to this topic that the discussion now turns.

4.7 Do successful or unsuccessful learners use strategies that play to the strengths and counteract the weaknesses of their cognitive style?

To answer this question it is necessary to discuss the strengths and weaknesses of the different cognitive style types. As mentioned in section 2.3.2.2, Bowie provided learning characteristics of each style group, including what makes sense to and the stress factors of each style type. From this, the strengths and weaknesses of each style group were determined, so that these could be directly related to the strategies used by the learners. Table 4.5 itemises these for each of the four style types. As one can see, PPs are organised, precise and accurate but lack flexibility, and team spirit, while RRs are intuitive leaders who dislike rules and restrictions. EIs on the other hand are logical researchers who need an organised environment, but find learning difficult without all the information. Finally, FFs are creative, sociable and flexible learners who often have difficulty organising themselves and are easily distracted from learning.

Table 4.5: Strengths and weaknesses of cognitive style types (adapted from Bowie, 1998)

Cognitive Style	Strengths	Weaknesses
Power Planner	➢ learns step-by-step ➢ detail person ➢ organised, likes routines ➢ precise and accurate ➢ good organisers	➢ inflexibility ➢ gets stressed when have too many things to do ➢ perfectionist ➢ prefers to work alone rather than in a team ➢ intolerant of disorganised people ➢ needs quiet place to work
Radical Reformer	➢ intuitive ➢ solves problems creatively ➢ risk- taker ➢ uses real world experiences to learn ➢ good leaders	➢ disorganised ➢ dislikes detail, so can leave work unfinished ➢ needs choices ➢ dislikes rules ➢ dislikes restrictions
Expert Investigator	➢ logical ➢ makes informed decisions ➢ can learn through grammar rules or abstract ideas ➢ good researcher ➢ thorough and exact ➢ needs structure and organised environment	➢ dislikes working in groups ➢ needs sufficient time to finish tasks ➢ dislikes hands-on messy projects
Flexible Friend	➢ people person ➢ flexible ➢ creative and imaginative ➢ making decisions with heart ➢ moral builder in a group	➢ dislike personal criticism ➢ dislike competition ➢ need to work with other people to learn ➢ need to make learning personal ➢ difficulties getting organised ➢ easily distracted from task by creative ideas

Having identified the strengths and weaknesses of the four cognitive style groups, I will consider how those strengths and weaknesses could be expected to relate to the SILL strategy categories and from this discuss whether these expectations have been realised in

the results for the *SILL strategy sections* and the *SILL individual questions*. When discussing the latter results, rather than examining each strategy in turn, I will focus on the strategies for the PPs and RRs where there is a difference in mean score of 2 or more, and for the FFs where the difference is greater than 1.5 (appendix 8).

4.7.1 Power planners

If successful learners not only use strategies to support their strengths, but also to counteract their weaknesses, then one might expect successful PPs to utilise a greater number of memory and metacognitive strategies than their unsuccessful counterparts, which would support their organised nature. On the other hand, their weaknesses are their desire to work alone and perfectionism. Strategies that would counteract these are social and compensation strategies, because the former allow students to interact with others while learning and the latter aids communication despite imperfect knowledge.

Indeed, the figures in table 4.6 appear to confirm that successful PPs use a significantly greater number of social strategies than their unsuccessful counterparts, therefore compensating for the weakness of wanting to work alone. However, the unsuccessful PP appears to use a more compensation strategies than the successful PPs. This may be due to the fact that the unsuccessful learner has a greater need for these strategies, as their overall knowledge of English is less complete. This, in my opinion, seems logical as successful PPs will attempt to learn English in a structured, complete and systematic fashion and will therefore be less likely to need compensation strategies. With regard to

strengths, table 4.6 shows that successful PPs use a greater number of memory and metacognitive strategies, both of which should support this cognitive style's strengths.

Table 4.6: SILL scores for successful and unsuccessful power planners

Strategy category	Successful power planners	Unsuccessful power planners
Memory	2.84	1.89
Cognitive	3.22	2.86
Compensation	3.84	4.33
Metacognitive	3.78	3.44
Affective	2.75	2.50
Social	4.25	2.33

The analysis of the individual questions (table 4.7) reveals that the memory strategies of using words in a sentence (2), using flashcards (6), remembering the location of the word (9) and connecting the sound to an image of the word (3) are more frequently used by successful learners. These strategies appear to support the concrete-sequential nature of PPs, once more confirming that supporting one's strengths can lead to success. Equally, questions 46-48 are all social strategies which encourage these shy learners to come out of their shell and attempt to use the language. Of particular significance, in my opinion, is question 46 which refers to the learner's wish to be corrected. PPs strive for perfection and by using this strategy they can start to use the language and learn from their errors, turning their weakness into a strength.

Table 4.7: Differences in strategy use for successful and unsuccessful power planners

Question	Successful	Unsuccessful	Difference
2. I use words in a sentence to help remember them	4	2	2
3. I connect the sound of a new English word and an image or picture of the word to help me remember the word.	3	1	2
6. I use flashcards to remember new English words.	4.5	2	2.5
9. I remember new English words or phrases by remembering their location on the page, on the board, or on a street sign.	4.5	2	2.5
41. I give myself a reward or treat when I do well in English.	3	1	2
46. I ask English speakers to correct me when I talk.	5	1	4
47. I practise English with other students.	4.5	1	3.5
48. I ask for help from English speakers.	4	1	3

4.7.2 Radical reformers

Given their strengths and weaknesses, successful RRs could be expected to use a greater number of memory, metacognitive and affective strategies to counteract their disorganised approach to learning and their dislike of restrictions, while at the same time a greater number of compensation strategies to support their intuitive nature. When one examines the scores for the SILL sections for both successful and unsuccessful RRs (table 4.8) these expectations are met for compensation strategies, with mean scores displaying a difference of just over one, suggesting that successful RRs do indeed use strategies that support their strengths. However, when one considers the scores for memory,

metacognitive and affective strategies, which would be expected to support RR's weaknesses, there is little difference in mean scores between the two groups for memory and metacognitive strategies, whereas there is a difference of just over one for affective strategies.

Table 4.8: SILL scores for successful and unsuccessful radical reformers

Strategy category	Successful radical reformers	Unsuccessful radical reformers
Memory	3.22	3.17
Cognitive	3.82	3.65
Compensation	3.58	2.50
Metacognitive	4.39	4.00
Affective	2.83	1.75
Social	3.42	3.84

On examination of the individual SILL questions (table 4.9) a slightly different picture emerges. Question 5 and 6 are memory strategies, question 24 and 26 compensation strategies and questions 39, 41 and 42 affective strategies. I will discuss each of these groups in turn. Firstly, the scores for questions 5 and 6 seem to negate each other. This, in my opinion, means that the successful RR learners might not use rhymes to help them remember (5), but do find using flashcards (6) helpful to organise themselves, counteracting their disorganised nature. Secondly, the scores for questions 24 and 26 are significantly higher. These two strategies are particularly useful for RRs as they support their strengths, allowing them to guess with the help of their intuition, producing language that is often very communicative, if not completely accurate.

Table 4.9: Differences in strategy use for successful and unsuccessful radical reformers

Question	Successful	Unsuccessful	Difference
5. I use rhymes to remember new English words	1.5	3.5	-2
6. I use flashcards to remember new English words	3.5	1	2.5
24. To understand unfamiliar words I make guesses	4.5	2.5	2
26. I make up new words if I don't know the right ones	3	1	2
39. I try to relax whenever I feel afraid to use English	4	1.5	2.5
41. I give myself a reward when I do well.	3	1	2
42. I notice if I'm tense or nervous.	3	1	2

With affective strategies, questions 39 and 42 relate to strategies to avoid anxiety in the learning situation. It appears that RRs, who naturally dislike the restrictions of the classroom, seem to be more successful when they notice and deal with the anxiety that arises from the classroom environment and, in particular, it is dealing with anxiety that, in my opinion, would aid the learning process and lead to success.

4.7.3 Flexible friends

According to their strengths and weaknesses, one would expect FFs to demonstrate a high score for social strategies, as it is these that play to their strengths. Equally, to counteract

the less organised nature of FFs, it is likely that they could use a greater number of metacognitive strategies, which would allow them to stay focused on the learning task in hand, preventing them from becoming diverted from their goals by their creativity.

The results from this study can be seen to support the latter claim, because the mean scores for metacognitive strategies is higher for successful than unsuccessful FFs (table 4.10). However, there is only a marginal difference in mean scores for social strategies between successful and unsuccessful learners. This finding could suggest that social strategies are fundamental to learning for this cognitive style group. I suggest that this is borne out when one examines the responses to question 45 (appendix 8, figure 3) which refers to asking another person when one does not understand. Both successful and unsuccessful FFs said that they usually or always used this strategy.

Table 4.10: SILL scores for successful and unsuccessful flexible friends

Strategy category	Successful Flexible Friends	Unsuccessful Flexible Friends
Memory	2.61	2.26
Cognitive	3.36	2.94
Compensation	3.61	3.72
Metacognitive	3.48	2.41
Affective	2.72	2.50
Social	3.39	3.10

On examination of the individual SILL questions (table 4.11), once more a slightly different picture emerges. Questions 30, 35 and 37 are metacognitive strategies and question 47 is a social strategy. By finding opportunities to use English (30) and setting clear goals (37) they do indeed appear to help themselves to remain focused counteracting their weaknesses. However, the metacognitive strategy of looking for people to talk to

(35) could be of great significance to FFs, as this not only counteracts their weaknesses but also reinforces their sociable nature.

Table 4.11: Differences in strategy use for successful and unsuccessful flexible friends

Question	Successful	Unsuccessful	Difference
30. I try to find as many ways as I can to use my English.	3.83	2.33	1.5
35. I look for people I can talk to in English.	3.67	1.67	2
37. I have clear goals for improving my English skills.	3.67	1.67	2
47. I practice with other students	2.83	1.33	1.5

This means it is possible that using social strategies alone may not guarantee success for these learners and it is only by also maximising their opportunities to use the language in a personal manner which fully supports their strengths, resulting in the desired success.

4.7.4 Expert investigators

As there was only one EI among the participants, it has not been possible to make comparisons between successful and unsuccessful learners. However, in my opinion, it is still interesting to consider how the EI's strengths and weaknesses are reflected in their SILL scores. The EI's strength of learning through the abstract in a logical and complete fashion may manifest itself in the use a greater number of cognitive, metacognitive or memory strategies, while their weaknesses of wanting to work alone and requiring all the

information implies that compensation and social strategies should be important for this group for successful language learning.

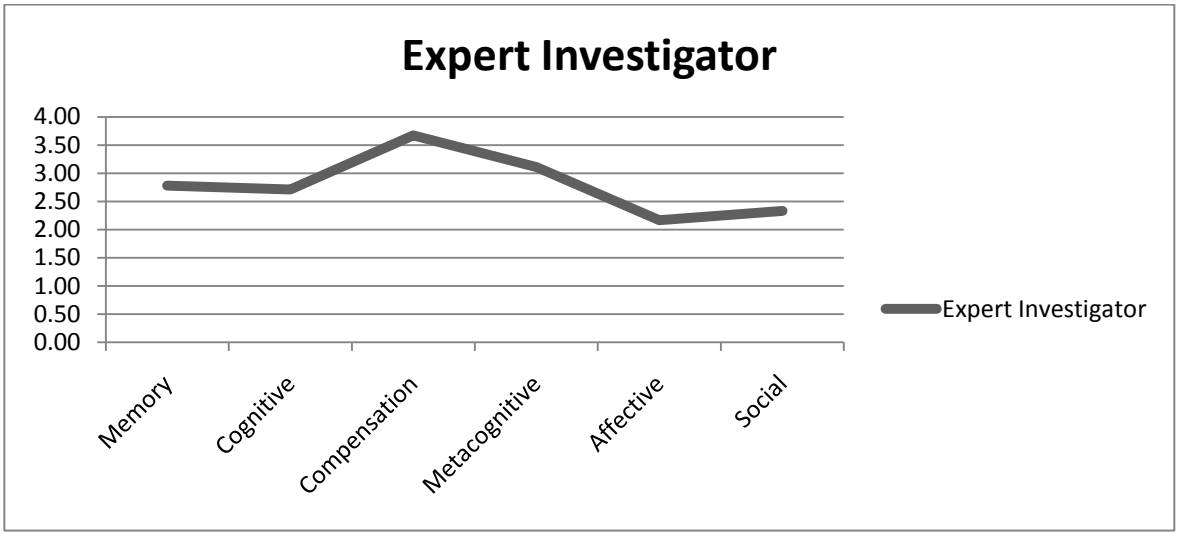


Figure 4.12: Expert Investigator's SILL strategy section scores

This successful learner's results for the SILL strategy sections (figure 4.12), illustrates that the highest strategy use is in the compensation category, which would appear to counteract their weakness of wanting all the information to learn. Equally, metacognitive and memory strategies are next highest categories, implying that this learner does indeed use metacognitive and memory strategies to reinforce their strengths. On examination of this learner's responses to the individual SILL questions with a score of 4 or 5 (table 4.12), it becomes apparent that this learner was selective in their strategy use, choosing three or four strategies in the memory, cognitive and metacognitive categories to use frequently to support their strengths and some strategies in the compensation and social categories to utilise regularly to counteract their weaknesses. This seems to confirm

existing research that strategy use by successful learners is individualistic but also suggesting that this successful EI selected strategies that supported their strengths and counteracted their weaknesses (Chamot & Rubin, 1994, Dörnyei 2005).

Table 4.12: Expert Investigator's high scoring strategies

	Question	score
Memory Strategies	2. Use words in sentence to remember them	4
	4. I remember new words by making a mental picture of the situation	4
	6. I use flashcards to remember new English words	4
Cognitive Strategies	16. I read for pleasure in English	5
	17. I write notes, letters, messages and reports in English	4
	22. I try not to translate word-for-word	4
Compensation Strategies	24. To understand unfamiliar words I make guesses	4
	27. I read English without looking up every word	4
	28. I try to guess what the other person will say next in English	4
	29. If I can't think of an word, I use a word that means the same	4
Metacognitive Strategies	31. I notice my mistakes and use the information to help me do better	4
	32. I pay attention when someone is speaking English	4
	36. I look for opportunities to read as much as possible in English	4
	37. I have clear goals for improving my English skills	4
Social Strategies	45. If I do not understand something, I ask the other person to slow down or say it again	5
	46. I ask English speakers to correct me when I talk	4

To sum up, PPs, RRs and EI/RRs appear to display some similarities in their strategy use; however, these learners still exhibit some degree of variety of the actual strategies used within each category of strategy, while the FFs seem to be extremely individualistic in their strategy choice. In addition, it is possible to argue that although patterns exist within the cognitive style groups, there does appear to be certain types of strategy that are important for success within each cognitive style. Finally, it can be seen that it is the successful learners who maximise their learning potential by using strategies that support the strengths and counteract the weaknesses of their particular style type.

5. CONCLUSION

5.1 Introduction

To draw this research paper to a close, this chapter will summarise the main findings of the study, explore the implications of this research for both learners and teachers and, finally consider the limitations of this study and where further research could build on this project's foundations.

5.2 Summary of main findings

Table 5.1 shows the four significant findings that have emerged from this project.

Table 5.1: Summary of main research findings

Research Finding	Details
One	Setting clear goals appears to be important for success in my classroom.
Two	Although successful learners generally use more strategies than their unsuccessful counterparts, the nature of strategy use was found to be extremely individualistic.
Three	Even though each cognitive style group does appear to demonstrate similarities in their use of strategies, these patterns appear to differ between successful and unsuccessful learners. Specifically, memory and social strategies seem particularly important to successful PPs while memory, compensation and affective strategies seem significant for successful RRs and finally, metacognitive strategies are seemingly influential for successful FFs. In addition, it appears there are similarities between the quantities of strategies utilised by the different style groups with the RRs using considerably more strategies than the FFs, while the PPs come between these two groups in the quantity of strategies used.
Four	Successful learners appear to use strategies that support the strengths and counteract the weaknesses associated with their cognitive style, once more possibly providing an explanation for the learners' success at language learning.

5.3 Implications of the study

5.3.1 Research finding one

This research finding suggests that successful learners in my classroom are those that set clear learning goals. As a teacher of adults in a CLT classroom, my role is of facilitator and collaborator, while the students are active participants, who learn through the process of discovery, constructing a personal set of knowledge (Nunan, 1999). It is my responsibility to assist individuals to achieve this, not to do it for them. Nevertheless, given this research finding, this role should also include guidance on setting these goals. This could take the form of assistance in deciding what types of goals would be suitable for the learner, depending on the strengths and weaknesses of their cognitive style. Table 5.2 shows how this might be applied to the different cognitive style groups.

Table 5.2: Advice for setting goals by cognitive style (continued on following page)

Cognitive Style	Advice for goal setting	Example
Power Planners	Goals should be concrete.	Watch a film in English and talk about it in English with a friend.
	Goals should help PPs reduce the information to manageable chunks.	Read 3 texts per week and take out ten expressions you want to learn.
	Goals should encourage them to work with others.	Use 3 of the expressions you want to learn when speaking with another student in class.
Radical Reformer	Goals should be concrete but should offer a range.	Read 2-5 texts per week and take out 5 -10 expressions you want to learn.
	Goals should encourage organisation.	Write the expressions onto cards.
	Goals should reflect their individuality.	RR comes up with a creative solution to solve their learning problems.

Flexible Friend	Goals should ensure that they are not distracted.	Set a fixed time for learning each week /day.
	Goals should allow them to make learning personal.	Read a text on Wednesdays and Fridays and take out ten expressions you want to learn. Imagine a situation you could use the expression and who you might use it with.
Expert Investigator	Goals should encourage them to find out things for themselves.	Read texts and find grammar that is new and try to decide on rules.
	Goals should help them to work with others.	Watch films in English and discuss them in English with a friend.

In conclusion, this research finding appears to be a symptom of learners who have embraced the concept of self-regulation as a means to success. The implications of this are far reaching for classrooms, as it suggests that a CLT classroom that fosters active participation of learners allows them to succeed where others might fail. It is difficult to determine whether this process would be beneficial in cultures where individuality is not valued, but in Western cultures CLT and self-regulation are proving the way forward for successful L2 learning.

5.3.2 Research finding two

The finding that successful learners use marginally more strategies than their unsuccessful counterparts corroborates early research which found that strategies are part of successful language learning (Rubin, 1975; Rubin & Thompson, 1982). Equally, the individual nature of strategy use revealed by the responses to the individual SILL questions seems to

confirm more recent views on the use of strategies in successful language learning, which suggests that successful learners appear to find strategies that are effective for them as individuals (Chamot & Rubin, 1994; Riding & Rayner, 1998).

For both teachers and learners this information is extremely significant as it provides guidance on how the area of strategy instruction should be approached. Teachers have to remember that it is the individual learner's view of what makes a strategy effective that is important. This understanding requires both teachers and learners to digress from traditional roles, where the teacher knows the right answer and the learner needs to absorb it. Instead, teachers should offer impartial and extensive knowledge of a wide range of possible strategies, which learners should selectively learn to use, depending on whether they, as individuals, find them effective. This supports the theory of self-regulation, which places the responsibility for learning clearly in the hands of the learner (Dörnyei, 2005). This approach would probably be relatively easy to implement with the majority of adult students here in Switzerland where CLT is widespread and a certain amount of personal commitment to learning is the norm. Nevertheless, it would be the teacher's responsibility to explain and constantly reinforce the possibly alien concept that their opinion is irrelevant when learning appropriate strategies. Certainly, this finding has encouraged me to discuss strategies in general terms rather than recommending specific strategies for everyone to follow.

5.3.3 Research finding three

In section 2.2 I discussed research by Rossi (1995) which found that there was a link between perceptual learning style and strategy use, and argued that if links could also be established between cognitive style and strategies, learners could be offered concrete advice in the classroom. In my opinion, the fact that the respondents in this research project appear to show patterns in their strategy use, and these patterns appear to differ between successful and unsuccessful learners, suggests that links also exist between cognitive style and strategy use.

This means it is possible for teachers to identify the cognitive style of learners that are less successful and then suggest the types of strategies that might help them learn more effectively. In addition, the knowledge that certain cognitive style types use more or less strategies can help learners understand themselves, once more assisting in the process of self-regulation. Therefore, if teachers have an unsuccessful PP, for example, they can recommend a complete range of strategies for that learner to use with greater emphasis on the social and memory strategies, nevertheless leaving the learner in control of the actual strategies they use. Similarly, in the case of an unsuccessful RR the emphasis can be changed to compensation and affective strategies, possibly also suggesting that they should use more strategies than other cognitive style groups. Finally, with unsuccessful FFs one could recommend being more selective in their strategy use with the emphasis being placed on their use of metacognitive strategies. In my opinion, it is still vital, however, that teachers avoid making specific recommendations as to which strategy is

better or more useful, while at the same time pointing out that a specific group of strategies is particularly significant for their cognitive style. By doing so, through the process of self-regulation the learner can become successful.

5.3.4 Research finding four

The findings of this research project suggest that successful learners use strategies that reinforce their strengths and counteract their weaknesses, which supports existing research by Ehrman, Leaver and Oxford (2003, p. 316) which found that unsuccessful learners "use strategies in a random, unconnected, and uncontrolled manner". The implications of this are significant because they suggests the teacher's role is not just to provide information for the learner to learn but also to assist learners in their understanding of themselves, so that the process of self-regulation can be effective. It appears, in my opinion, that learners who have little understanding of how they learn as individuals are unlikely to choose strategies in a beneficial manner. Teachers, therefore, can provide an opportunity for learners to discover their cognitive style and with it their strengths and weaknesses. This, combined with impartial advice about strategies tailored to a learner's cognitive style would allow learners to use strategies strategically, increasing the likelihood of success.

5.4 Limitations of the study

The aim of this study was to determine whether a link between cognitive style and learning strategies could be established in my classroom. Although the small scale of the

project was essential for the emerging theory to be developed, this fact gives rise to the project's first limitation, namely whether this theory can be applied to more classrooms and offer a concept that can be generalised among EFL learners. Moreover, the small scale of the project resulted in an inadequate range of participants, particularly EIs. Equally, it was essential in this study to consider just the two ID factors of cognitive style and learning strategies, however, it is likely that learners use other elements of learner style combined with cognitive style when learning and as these combinations vary, so too may learners' choice of strategy. Finally, this study was undertaken in a western environment where CLT and self-regulation are accepted features of language learning pedagogic practice. It is possible that the links established in this project would not be applicable to other cultures.

5.5 Recommendations for further research

This research project is "emergent", involving qualitative research techniques, because analysis of the data at this stage has required the "researcher's subjective sensitivity" (Dörnyei, 2007, p. 28) for the successful development of the emerging theory. However, now that a possible link between cognitive style and learning strategies has been established in my classroom, at least in qualitative terms, it would be extremely exciting if this study could be undertaken on a much wider scale, in order to provide quantitative evidence of the existence of this link. In addition, this study could also be repeated in countries with differing approaches to learning to investigate whether this theory can be applied to areas of the world where CLT is not the accepted norm. Alternatively, research

using the MOI alone in differing cultural settings could investigate how culture and the learning environment influence cognitive style.

Furthermore, it would also be fascinating to combine my research measuring cognitive style and Rossi's research (1995) using PLSP and investigate if there are any changes in the strategy use displayed by learners in the differing style groups. This would allow researchers to examine the learner in a more holistic manner and provide advice that can be tailored to the learner, focusing on strategies that would support his or her particular combination of style traits.

At this stage, it is impossible to say whether the theory outlined in this paper has wider applications within SLA research, but as a teacher, I believe were ELT professionals to repeat this study in their own classrooms, they would find it an enlightening process, allowing them to better assist all their students, but most importantly those that struggle with the never ending task of language learning. If this study were adopted at the early stages of an EFL curriculum, realising Riding and Rayner's (1998, p. 7) desire to see the "inclusion of cognitive and learning styles in pedagogic practice", many learners might never become unsuccessful.

5.6 Conclusion

This study began with a teacher's desire to assist learners, who are desperate to learn but are constantly frustrated and disappointed by lack of success. This desire, combined with

my observations of students over years of teaching, led to the development of a theory. This project aimed to test that theory and provide concrete advice that could be offered to learners, to help them in the process of self-regulated learning. In my opinion, the results of this study have achieved these aims and, although we still do not possess a one-fits-all solution for teaching and learning, this has become less important because by using cognitive style awareness and strategy training with learners, we can treat them as the individuals they are, and provide some direction for those learners who cannot find their way on their path to successful, self-regulated L2 learning.

6. BIBLIOGRAPHY

Allport, G. (1937). *Personality: A psychological interpretation.* New York: Holt & Co.

Altman, H. (1980). Foreign language teaching: focus on the learner. In H. Altman, & C. Vaughan James, (Eds.) *Foreign Language Teaching: Meeting Individual Needs.* Oxford: Pergamon.

Bowie, A. (1998). *Adolescent Self Perceptions of Learning Styles.* Antioch University, Seattle: Unpublished Master's Dissertation.

Bowie, A. (1998). *Look Inside Your Brain.* Seattle: The Learning Styles Institute L.L.C.

Bowie, A. (1995). *Style Quest.* Seattle: The Learning Styles Institute L.L.C.

Brown, H. D. (2007). *Principles of Language Learning and Teaching,* 5th Edition. White Plains: Pearson Education.

Brown, J., & Rogers, T. S. (2002). *Doing Second Language Research.* Oxford: OUP.

Cassidy, S. (2004). Learning Styles: An overview of theories, models and measures. *Educational Psychology, 24:4*, 419-444.

Chamot, A. (2005). Language learning strategy instruction: Current issues and reseach. *Annnual Review of Applied Linguistics 25*, 112-130.

Chamot, A., & Rubin, J. (1994). Comments on Janie Rees-Miller's "A critical appraisal of learner training: Theoretical bases and teaching implications. *Tesol Quarterly 28*, 771-776.

Cohen, A. (2001). Preparing Teachers for Styles and Strategies-Based Instruction. *Conference Paper* (pp. 1-20). Minneapolis: CARLA University of Minnesota.

Cohen, A. (1998). *Strategies in Learning and Using a Second Language.* Harlow, Essex: Pearson Education.

Cohen, A., & Dörnyei, Z. (2002). Focus on the Language Learner: Motivation, Styles and Strategies. In N. Schmitt, (Ed.) *An Introduction to Applied Linguistics* (pp. 170-190). London: Arnold.

Dörnyei, Z. (2007). *Research Methods in Applied Linguistics.* Oxford: OUP.

Dörnyei, Z. (2005). *The Psychology of the Language Learner: Individual Differences in Second Language Acquisition.* Mahwah: Lawrence Erlbaum Assoc. Inc.

Ehrman, M. (1996). *Understanding second language difficulties.* Thousand Oaks, CA: Sage.

Ehrman, M., Leaver, B., & Oxford, R. (2003). A brief overview of individual differences in second language learning. *System, 31,* 313-330.

Eliason, P. A. (1995). Difficulties with Cross-Cultural Learning-Styles Assessment. In J. Reid, (Ed.) *Learning Styles in the ESL/EFL Classroom* (pp. 19-33). Boston: Heinle and Heinle.

Ellis, R. (2000). *The Study of Second Language Acquisition.* Oxford: OUP.

Council of Europe (2010). *European Language Portfolio: Levels*. Retrieved October 25th, 2010, from Common European Framework of Reference for Languages: http://www.coe.int/T/DG4/Portfolio/?L=E&M=/main_pages/levels.html

Gallin, R. (1999). *Language learning styles and their effect on the reading comprehension strategies of ESL students.* Minneapolis: Unpublished Double Plan B Paper, Department of English as a Second Language, University of Minnesota.

Gardner, R., Tremblay, P., & Masgoret, A.-M. (1997). Towards a full model of second language learning: and emperical investigation. *Modern Language Journal, 81,* 344-362.

Gregorc, A. (1982). *An Adult's Guide to Style.* Columbia, CT: Gregorc Associates, INC.

Gregorc, A. (1984). Style as a Symptom: A Phenomenological Perspective. *Theory into Practice, Vol. 23, No. 1,* 51-55.

Grin, F. (2001). English as economic value: facts and fallacies. *World Englishes Vol. 20, No. 1,* 65-78.

Guild, P. B., & Garger, S. (1998). *Marching to Different Drummers, 2nd Edition.* Alexandria: ASCD.

Jonassen, D., & Grabowski, B. (1993). *Handbook of Individual Differences, Learning and Instruction.* Hillsdale, NJ: Lawrence Erlbaum.

Keefe, J. (1979). Learning Style: an overview. In J. Keefe, (Ed.) *Student Learning Styles: Diagnosing and Describing Programs.* Reston, VA: National Secondary School Principals.

Kinsella, K. (1995). Understanding and empowering diverse learners in ESL classrooms. In J. Reid, (Ed.) *Learning Styles in the ESL/EFL classroom* (pp. 170-194). Boston: Heinle and Heinle.

Larsen-Freeman, D., & Long, M. (1991). *An Introduction to Second Language Acquisition.* London: Longman.

Laviosa, F. (1991). *A preliminary investigation of the listening problem-solution process and the strategies of five advanced learners of Italian as a second language.* Buffalo: Unpublished doctoral dissertation.

Lüdi, G., & Werlen, I. (2005, April). *Sprachlandschaft in der Schweiz (Language Use in Switzerland).* Retrieved March 29, 2010, from Bundesamt für Statistik (Ministry for Statistics): http://www.bfs.admin.ch/bfs/portal/de/index/themen/01/22/publ.Document.52216.pdf

MacIntyre, P., & Noels, K. (1994). Retrospective Review Article: The Good Language Learner. *System Vol. 20 No. 2*, 269-287.

Naiman, N., Fröhlich, M., Stern, H., & Todesco, A. (1978). *The Good Language Learner*. Toronto: Ontario Institute for Studies in Education.

Nunan, D. (1999). *Second Language Teaching and Learning.* Boston: Heinle & Heinle Publishers.

O'Malley, J., & Chamot, A. (1990). *Learning Strategies in Second Language Acquisition.* New York: Cambridge University Press.

Oxford, R. (1990). *Language Learning Strategies: What every teacher should know.* New York: Newbury House.

Oxford, R. (2003). Language learning styles and strategies: Concepts and relationships. *IRAL 41*, 271-278.

Oxford, R. (1999). Learning Strategies. In B. Spolsky, (Ed.) *Concise encyclopedia of educational linguistics* (pp. 518-522). Oxford: Elsevier.

Oxford, R., & Burry-Stock, J. (1995). Assessing the use of language learning strategies worldwide with the ESL/EFL version of the strategy inventory for language learning (SILL). *System Vol. 23, No.1,* 1-23.

Pallant, J. (2007). *SPSS Survival Manual.* Maidenhead: Oxford University Press.

Rayner, S. (2000). Reconstructing style differences in thinking and learning: Profiling learning performance. In R. Riding, & S. Rayner, (Ed.) *Interpersonal perspectives on individual differences (Vol. 1: Cognitive styles)* (pp. 115-177). Stamford, CI: Ablex.

Reid, J. (Ed.) (1995). *Learning styles in the ESL/EFL classroom.* Boston: Heinle and Heinle.

Reid, J. (1987). The Learning Style Preference of ESL Students. *TESOL Journal, Vol. 20 No. 1*, 87-111.

Riding, R. (2002). Cognitive Style: A review. In R. Riding, & S. Rayner, (Eds.) *Interpersonal perspectives on individual differences (Vol.1, Cognitive styles)* (pp. 315-344). Stamford, CT: Ablex.

Riding, R., & Rayner, S. (1998). *Cognitive Styles and Learning Strategies: Understanding the Style Differences in Learning and Behaviour.* London: David Fulton Publishers Ltd.

Riding, R., & Sadler-Smith, E. (1997). Cognitive style and learning strategies: some implications for training design. *International Journal of Training and Development*, 199-208.

Rossi, L. (1995). Learner Styles and Strategies in Adult Immigrant ESL Students. In J. Reid, (Ed.) *Learning Styles in the ESL/EFL Classroom* (pp. 118-125). Boston: Heinle and Heinle.

Rubin, J. (1975). What the "Good Language Learner" Can Teach Us. *TESOL Quarterly Vol 9 No1*, 41-51.

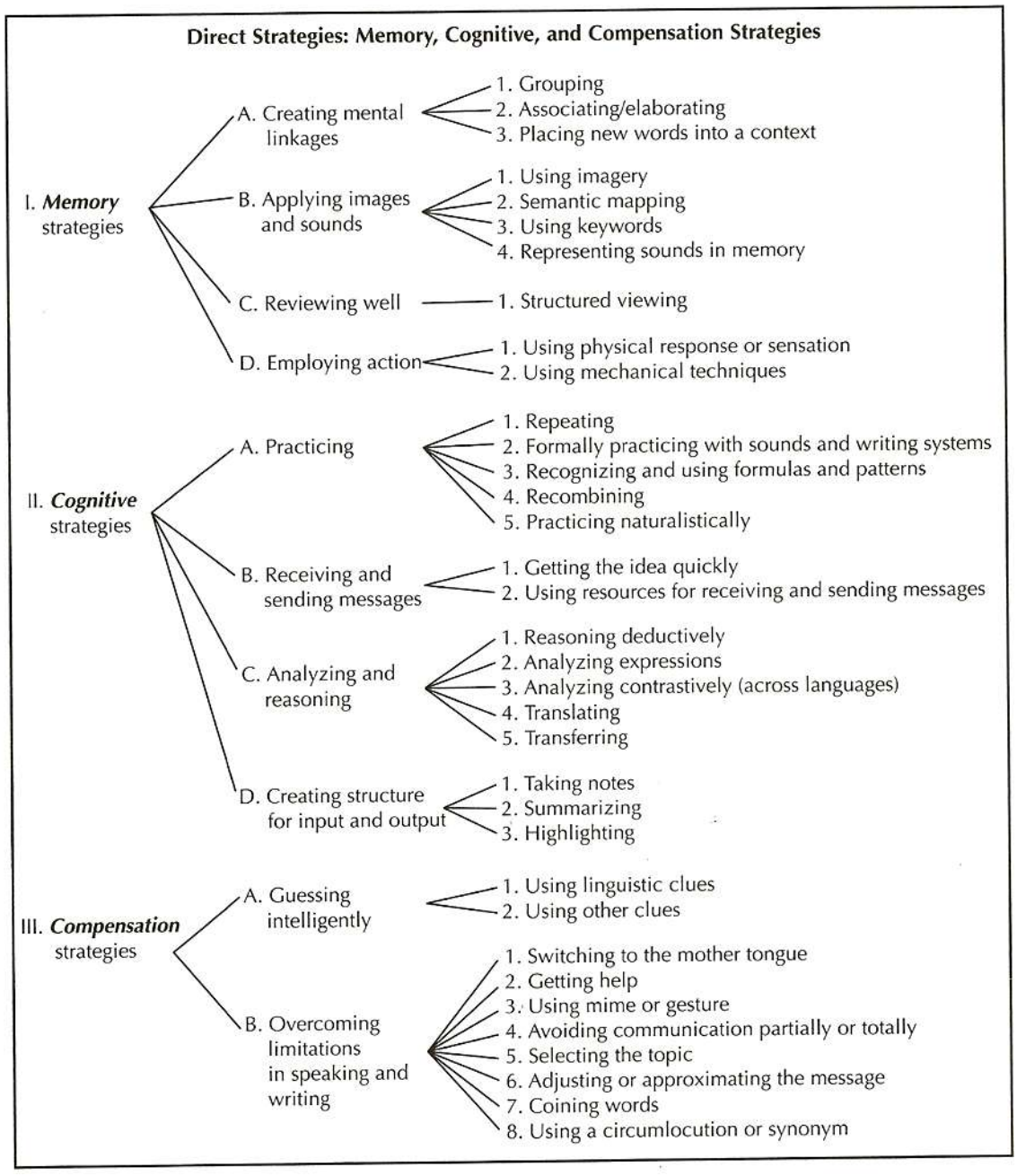
Skehan, P. (1989). *Individual Differences in Second-language Learnin* . London: Edward Arnold.

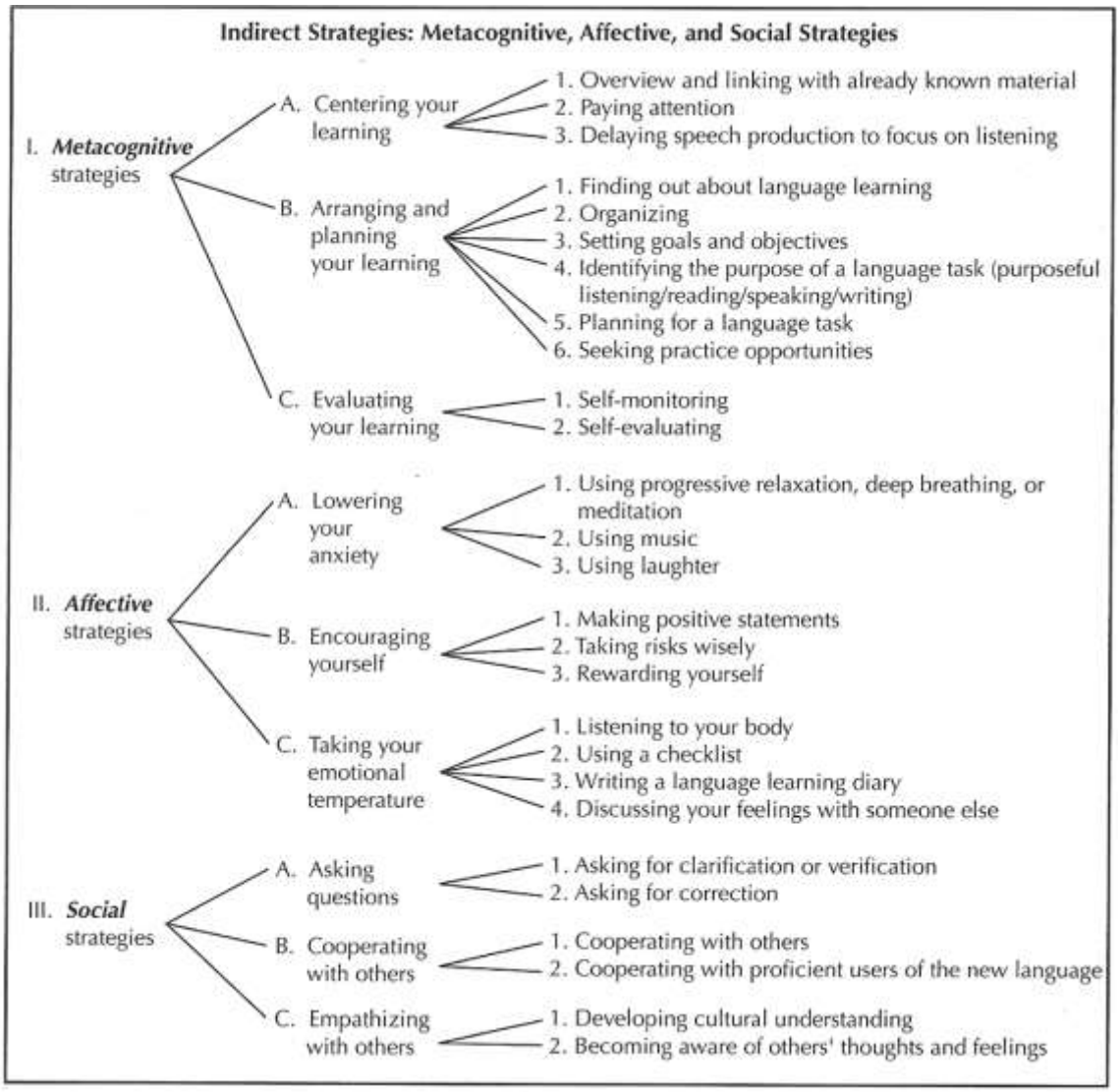
Wallace, B., & Oxford, R. (1992). Disparity in learning styles in the ESL classroom. Does this mean war? *AMTESOL Journal* , 45-68.

Yamamori, K., Isoda, T., Hiromori, T., & Oxford, R. (2003). Using cluster analysis to uncover L2 learner differences in strategy use, will to learn, and achievement over time. *IRAL, 41*, 381-409.

7. APPENDICES

7.1 Appendix One: Oxford's taxonomy of learning strategies




Indirect Strategies: Metacognitive, Affective, and Social Strategies
I. Metacognitive strategies
A. Centering your learning
1. Overview and linking with already known material
2. Paying attention
3. Delaying speech production to focus on listening
B. Arranging and planning your learning
1. Finding out about language learning
2. Organizing
3. Setting goals and objectives
4. Identifying the purpose of a language task (purposeful listening/reading/speaking/writing)
5. Planning for a language task
6. Seeking practice opportunities
C. Evaluating your learning
1. Self-monitoring
2. Self-evaluating
II. Affective strategies
A. Lowering your anxiety
1. Using progressive relaxation, deep breathing, or meditation
2. Using music
3. Using laughter
B. Encouraging yourself
1. Making positive statements
2. Taking risks wisely
3. Rewarding yourself
C. Taking your emotional temperature
1. Listening to your body
2. Using a checklist
3. Writing a language learning diary
4. Discussing your feelings with someone else
III. Social strategies
A. Asking questions
1. Asking for clarification or verification
2. Asking for correction
B. Cooperating with others
1. Cooperating with others
2. Cooperating with proficient users of the new language
C. Empathizing with others
1. Developing cultural understanding
2. Becoming aware of others' thoughts and feelings

7.2 Appendix Two: Background information questionnaire

Background Information Questionnaire

For the final part of my Masters degree in TEFL from the University of Birmingham, I am undertaking research into cognitive styles and learning strategies used by students. The aim of the research is to investigate the relationship between cognitive style and learning strategies and whether that relationship differs between successful and less successful learners. To this end, I would be most grateful if you would complete this background information survey, which will help me group students when the results are analysed. When your results have been compiled I will send you a copy by e-mail. I therefore ask you to provide me with your email address. Thank you very much for your help.

Please note that all the information collected for my research will be treated in the strictest confidence and will not be disclosed under any circumstances. Although I ask for your name on the cover page of each survey, I do so only to ensure that the information you submit in this questionnaire can be linked with other questionnaires that you complete. When your answers are processed for the research your name will be replaced with a number so that anonymity is ensured.

Name: _____ Course: _____

Email: _____

1. Please tick the age group that applies to you.

under 25	26 to 35	36 to 45	45+
☐	☐	☐	☐

2. How many hours a week **on average** did you spend studying English during the course? *Please answer what you actually did **not** what you would like to have done. I am not judging you.*

less than 1 hour	1 to 2 hours	2.5 to 4 hours	more than 4 hours
☐	☐	☐	☐

3. What is your mother tongue?

_____

4. Apart from your mother tongue, please mark the box below to show the languages that you speak and mark how well you speak them on the scale by putting a cross on the line for those languages.

English

☐ basic/get by intermediate advanced fluent

German

☐ basic/get by intermediate advanced fluent

French

☐ basic/get by intermediate advanced fluent

Spanish

☐ basic/get by intermediate advanced fluent

Italian

☐ basic/get by intermediate advanced fluent

Other Which?

_____ basic/get by intermediate advanced fluent

Other Which?

_____ basic/get by intermediate advanced fluent

5. How important is it for you to learn English?

Essential very important important quite important unimportant

☐ ☐ ☐ ☐ ☐

6. How much do you use English in your everyday life?

Daily once a week once a month rarely never

☐ ☐ ☐ ☐ ☐

7. Why are you learning English?

_____

Many thanks for your help.

7.3 Appendix Three: Strategy inventory for language learning

Name: _____

STRATEGY INVENTORY FOR LANGUAGE LEARNING (SILL)

VERSION FOR SPEAKERS OF OTHER LANGUAGES LEARNING ENGLISH

(Oxford, 1990)

Directions

This form of the STRATEGY INVENTORY FOR LANGUAGE LEARNING (SILL) is for students of English as a second or foreign language. You will find statements about learning English. Please read each statement and write the response (1, 2, 3, 4 or 5) that tells **HOW TRUE OF YOU THE STATEMENT IS**.

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.

NEVER OR ALMOST NEVER TRUE OF ME means that the statement is *very rarely* true of you.

USUALLY NOT TRUE OF ME means that the statement is true of you *less than half the time*.

SOMEWHAT TRUE OF ME means that the statement is true of you *about half the time*.

USUALLY TRUE OF ME means that the statement is true *more than half the time*.

ALWAYS OR ALMOST ALWAYS TRUE OF ME means that the statement is true of you *almost always*.

Answer in terms of how well the statement describes **you**. **Do not answer how you think you should be, or what other people do**. There are no right or wrong answers to these statements. Work as quickly as you can without being careless. This usually takes about 20 minutes to complete. If you have any questions, let the teacher know immediately.

PART A

1. I think of relationships between what I already know and new things I learn in English.

1	2	3	4	5
Never				*Always*

2. I use new English words in a sentence so I can remember them.

1	2	3	4	5
Never				*Always*

3. I connect the sound of a new English word and an image or picture of the word to help me remember the word.

1	2	3	4	5
Never				*Always*

4. I remember a new English word by making a mental picture of the situation in which the word might be used.

1	2	3	4	5
Never				*Always*

5. I use rhymes to remember new English words.

1	2	3	4	5
Never				*Always*

6. I use flashcards to remember new English words.

1	2	3	4	5
Never				*Always*

7. I physically act out new English words.

1	2	3	4	5
Never				*Always*

8. I review English lessons often.

1	2	3	4	5
Never				*Always*

9. I remember new English words or phrases by remembering their location on the page, on the board, or on a street sign.

1	2	3	4	5
Never				*Always*

PART B

10. I say or write new English words several times.

1	2	3	4	5
Never				*Always*

11. I try to talk like native English speakers.

1	2	3	4	5
Never				*Always*

12. I practise the sounds of English.

1	2	3	4	5
Never				*Always*

13. I use the English words I know in different ways.

1	2	3	4	5
Never				*Always*

14. I start conversations in English.

1	2	3	4	5
Never				*Always*

15. I watch English language TV shows spoken in English or go to movies spoken in English.

1	2	3	4	5
Never				*Always*

16. I read for pleasure in English.

1	2	3	4	5
Never				*Always*

17. I write notes, messages, letters or reports in English.

1	2	3	4	5
Never				*Always*

18. I first skim an English passage (read over the passage quickly) then go back and read carefully.

1	2	3	4	5
Never				*Always*

19. I look for words in my own language that are similar to new words in English.

1	2	3	4	5
Never				*Always*

20. I try to find patterns in English.

1	2	3	4	5
Never				*Always*

21. I find the meaning of an English word by dividing it into parts that I understand.

1	2	3	4	5
Never				*Always*

22. I try not to translate word-for-word.

1	2	3	4	5
Never				*Always*

23. I make summaries of information that I read or hear in English.

1	2	3	4	5
Never				*Always*

PART C

24. To understand unfamiliar English words, I make guesses.

1	2	3	4	5
Never				*Always*

25. When I can't think of a word during a conversation in English, I use gestures.

1	2	3	4	5
Never				*Always*

26. I make up new words if I do not know the right ones in English.

1	2	3	4	5
Never				*Always*

27. I read English without looking up every new word.

1	2	3	4	5
Never				*Always*

28. I try to guess what the other person will say next in English.

1	2	3	4	5
Never				*Always*

29. If I can't think of an English word, I use a word or phrase that means the same thing.

1	2	3	4	5
Never				*Always*

PART D

30. I try to find as many ways as I can to use my English.

1	2	3	4	5
Never				*Always*

31. I notice my English mistakes and use that information to help me do better.

1	2	3	4	5
Never				*Always*

32. I pay attention when someone is speaking English.

1	2	3	4	5
Never				*Always*

33. I try to find out how to be a better learner of English.

1	2	3	4	5
Never				*Always*

34. I plan my schedule so that I will have enough time to study English.

1	2	3	4	5
Never				*Always*

35. I look for people I can talk to in English.

1	2	3	4	5
Never				*Always*

36. I look for opportunities to read as much as possible in English.

1	2	3	4	5
Never				*Always*

37. I have clear goals for improving my English skills.

1	2	3	4	5
Never				*Always*

38. I think about my progress in learning English.

1	2	3	4	5
Never				*Always*

PART E

39. I try to relax whenever I feel afraid of using English.

1	2	3	4	5
Never				*Always*

40. I encourage myself to speak English even when I am afraid of making a mistake.

1	2	3	4	5
Never				*Always*

41. I give myself a reward or treat when I do well in English.

1	2	3	4	5
Never				*Always*

42. I notice if I am tense or nervous when I am studying or using English.

1	2	3	4	5
Never				*Always*

43. I write down my feelings in a language learning diary.

1	2	3	4	5
Never				*Always*

44. I talk to someone else about how I feel when I am learning English.

1	2	3	4	5
Never				*Always*

PART F

45. If I do not understand something in English, I ask the other person to slow down or say it again.

1	2	3	4	5
Never				*Always*

46. I ask English speakers to correct me when I talk.

1	2	3	4	5
Never				*Always*

47. I practise English with other students.

1	2	3	4	5
Never				*Always*

48. I ask for help from English speakers.

1	2	3	4	5
Never				*Always*

49. I ask questions in English.

1	2	3	4	5
Never				*Always*

50. I try to learn about the culture of English speakers.

1	2	3	4	5
Never				*Always*

7.4 Appendix Four: Mind organisation index ©

Mind Organisation Index ©

Name: _____

Directions:

The Index includes ten sets of statements – four statements in each set. Read each statement and decide how it refers to you. Give **four** points to the statement that is the most important to you, **three** points to the one you prefer next, **two** to next one, and **one** point to the statement you prefer least. Each statement **MUST** have a **DIFFERENT** number. There are no wrong answers.

4= most like me **3= often like me** **2= sometimes like me** **1=least like me**

1. My Approach to Learning

When beginning a task or some work...

_____ A. I make sure I have clear instructions that I can follow.

_____ B. I prefer to have detailed and explicit information about the task.

_____ C. I need to know that someone else will help me if I don't understand.

_____ D. I usually want to begin the task immediately, sometimes before reading or listening to all of the directions.

2. My Learning Style

I learn best ...

_____ A. by using a step-by-step approach.

_____ B. when I have the time to think for myself about details, facts, and logical explanations.

_____ C. when I can talk to others and connect the lesson to my life.

_____ D. from real life experiences and a "hands-on" approach.

4 = most like me 3 = often like me 2 = sometimes like me 1= least like me

3. My Approach to Problem Solving

When I solve a problem ...

_____ A. I look for solutions that are logical, simple and make sense.

_____ B. I take my time to think about it.

_____ C. I share and discuss solutions with friends, family members, and colleagues.

_____ D. I use my instincts to come up with my own creative solution.

4. My Schedule

_____ A. I prefer to have the same schedule or routine each day.

_____ B. Having sufficient time to do a good job is an important part of my daily routine.

_____ C. I can adapt easily if my plan for the day is interrupted.

_____ D. I avoid routines as much as possible.

5. My Work Space

_____ A. I like to keep my workspace neat and organised.

_____ B. My workspace is usually organised but sometimes gets messy.

_____ C. I organise by piles rather than files.

_____ D. My work space often looks like a disaster area (extremely untidy)

4 = most like me 3 = often like me 2 = sometimes like me 1= least like me

6. My "Job Description"

In my different roles, I am usually the ...

_____ A. organiser, administrator

_____ B. researcher, critic

_____ C. morale-builder, mentor

_____ D. change-agent, activist

7. My Communication Style

When talking to others about important things ...

_____ A. I am direct, even if it means that I hurt someone's feelings.

_____ B. I prefer to have a lot of time to think about (and perhaps explore) the matter.

_____ C. I try to be sensitive to other people's feelings.

_____ D. I usually convey my gut reactions (Bauchgefühle)

8. Working in Groups

When I work in groups ...

_____ A. I like to stay on task until we get the job done.

_____ B. I prefer not to work in groups and would rather work by myself

_____ C. I enjoy working in a group where I am comfortable

_____ D. I am often the leader and my group has an unusual and creative product.

4 = most like me 3 = often like me 2 = sometimes like me 1= least like me

9. A Different point-of-view

My friends would describe me as ...

_____ A. loyal, dependable, and hard-working

_____ B. sensible and logical

_____ C. a good listener and an understanding person

_____ D. adventurous

10. My Point-of-view

I would describe myself as ...

_____ A. a perfectionist

_____ B. inquisitive (neugerig) and cautious (vorsichtig/zurückhaltend)

_____ C. imaginative, spontaneous, and creative

_____ D. unique and strong-willed

Now add all your A scores, all your B scores, all your C scores and all your D scores.

A: Power planner score:_____

B: Expert investigator score: _____

C: Flexible friend score: _____

D Radical reformer score: _____

Your highest score is your learner style.

7.5 Appendix Five: MOI description of style types

Expert Investigator

Characterisitics:

- sensible
- enjoys research
- objective, rational, unemotional
- thorough, exact
- skeptical, needs all the facts

What makes sense?

- gathering lots of information before making a decision
- logical reasoning
- a teacher who is an expert in their area
- abstract ideas
- having enough time to finish assignments, projects or tests

Stress factors:

- working in groups regularly
- feeling rushed by someone else to finish an assignment
- no structure or organisation, “hand-on” messy projects
- being asked to talk about personal emotions or feelings

Three Quick Tips for the Stressed Expert Investigator

1. Make sure that you have all the information you need in order to complete a task and that you know exactly what is expected of you and how you are expected to do it.
2. Ask your teacher if you can have more time in order to reflect on your work if it is necessary. If you are learning at home, make sure you have enough time to complete your assignment in a quiet place without interruptions.
3. Coping Strategy for the Expert Investigator: Practice working at home with time limits so that you can learn to work more quickly at school when it is necessary.

Tips for Teaching the Expert Investigator

1. Allow your learners enough time to finish an assignment.
2. Create possibilities in which learners can research material on their own.
3. Build in debates in your instruction - teach your learners how to analyze and to consider issues from all sides.
4. Try to answer **all** their questions. (Look up answers for the next class if necessary.) Allow time for the concepts and theories of the Expert Investigator.
5. Be consistent with rules, expectations and methods of assessment.
6. Don't use emotions when making decisions, especially in situations dealing with classroom management.
7. Inform the learners about sources where they can do their own research and look up more information about topics.
8. Announce time frames and structure lessons so that the Expert Investigator has the feeling he or she knows what to expect next.

How to Help Them Cope

1. Teach them how to take concise notes and to find and summarize the important parts of the information.
2. Help them to learn how to deal with "concrete" or realistic learning materials and use "hands-on" projects in a constructive way.

Flexible Friend

Characteristics:

- people person
- creative and imaginative
- sensitive and compassionate
- spontaneous
- flexible, can adapt to change
- enthusiastic
- idealistic

What makes sense?

- personalised learning
- having a friendly relationship with other people wherever possible
- listening sincerely to others
- understanding emotions and feelings
- decisions made with the heart instead of the head

Stress factors:

- being isolated from friends
- competition
- no opportunity to be creative or spontaneous
- no credit given for effort
- personal criticism
- having to explain their feelings to others

Three Quick Tips for the Stressed Flexible Friend

1. Be aware of who you can ask for help if you need it. This could be your teacher, parents, friends or classmates.
2. Create your own comfortable, relaxed learning atmosphere.
3. Coping Strategy for the Flexible Friend: Decide what is really most important to do first, make a list for yourself.

Tips for Teaching the Flexible Friend

1. Create a comfortable, inviting classroom.
2. Allow time for personal stories from your learners.
3. Encourage your learners to personalize their binders and books.
4. Recognize effort from learners, praise the process and social skills as well as the results.
5. Use group work or learning teams; give learners time for discussions with each other.
6. Show sensitivity when dealing with topics which are important to your learners.
7. Make your instructions more personal; tell stories; use humour, etc.
8. Show your learners that you like them as people.
9. Help your learners to see that they are important and that their personal involvement can help others in the world.

How to Help Them Cope

1. Give them different tips about personal organization.
2. Help them to learn how to work with other learners who are not their friends or with whom they don’t have a personal relationship.

Power Planner

Characteristics:

- loyal
- organised, punctual
- hard-working, dependable
- a planner
- a perfectionist
- a “detail” person
- practical

What makes sense?

- learning step-by-step
- paying close attention to details
- having a routine or schedule to follow
- knowing what is expected of them
- exact instructions

Stress factors:

- people who are not organised
- not knowing exactly how to do an assignment or task
- having too much to do at one time
- constant change
- a messy desk
- not having a quiet place to work

Three Quick Tips for the Stressed Power Planner

1. Make a checklist and write down exactly what needs to be done first. Check off items after they are completed.
2. Make sure that you have exact instructions. You may have to ask your teacher for a specific example so that you know what you have to do.
3. Coping Strategy for the Power Planner: Don't allow the personalities of your teacher or your classmates to distract you from what you have to do; concentrate on the content.

Tips for Teaching the Power Planner

1. Give the learners an exact schedule of what will be covered when.
2. Give written and verbal instructions for assignments; include all the details necessary.
3. Make use of practical, "hands-on" learning experiences.
4. Give specific examples whenever possible.
5. Give the learners exact dates when assignments or projects are due and what exactly is expected for a specific grade. Be consistent. (Avoid statements like: "Give it to me whenever you've finished it." "It doesn't matter if you use blue or red ink.")
6. Give exact feedback when handing back corrected assignments.
7. Keep the classroom and the lesson plans organized.
8. Give examples of how the learning material can be used in a practical situation.

How to Help Them Cope

1. Encourage them to work in cooperative learning groups and to take on new roles (not always being the organizer). Praise their social skills as you praise their organizational ones.
2. Teach them to practice writing essays by making outlines first so that they can learn creativity through structure.

Radical Reformer

Characteristics:

- risk-taker, adventurous
- curious, creative, intuitive
- able to do many things at one time
- competitive
- strong-willed
- thrives on change
- values uniqueness
- persuasive, inspiring

What makes sense?

- using instinct to solve problems
- thinking up unusual and creative ideas or solutions
- inspiring others to take action (“I dare you to...”)
- using real world experiences or authentic material to learn
- working in a messy or disorganised environment

Stress factors:

- too many restrictions or routines; no choices
- a teacher that they do not respect as a person
- not being appreciated for being a unique individual with unique ideas
- not receiving credit or recognition for knowledge or for knowing the right thing to do

Three Quick Tips for the Stressed Radical Reformer

1. Find personal and important reasons for you to learn and to finish assignments.
2. Negotiate with your teacher in order to find different possibilities of finishing your school work. Talk with your parents about choosing when and where to learn as long as your grades are OK.
3. Coping Strategy for the Radical Reformer: Learn how to set priorities. What is most important and what should be done first?

Tips for Teaching the Radical Reformer

1. Don't push a Radical Reformer into a corner.
2. Stress general rules rather than exact regulations; allow the possibility of choices.
3. Give a Radical Reformer the chance to negotiate with you while maintaining your authority.
4. Make your lessons interesting and varied, try to avoid doing the expected now and then and change your routine from time to time.
5. Create assignments that provide some challenge for the learners; give them (or encourage them to find) personal reasons for learning the material.
6. Encourage leadership qualities of your learners.
7. Create situations in which creative problem solving strategies are required.
8. Use real life experiences and authentic material when possible.

How to Help Them Cope

1. Suggest organizational strategies or encourage the Radical Reformer to find his or her own unique way of organizing the material.
2. Encourage Radical Reformers to finish tasks or projects which they have started.

7.6 Appendix Six: Common European Framework of Reference (CEFR)

Proficient User	C2	Can understand with ease virtually everything heard or read. Can summarise information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. Can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of meaning even in more complex situations.
	C1	Can understand a wide range of demanding, longer texts, and recognise implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organisational patterns, connectors and cohesive devices.
Independent User	B2	Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisation. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.
	B1	Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. Can deal with most situations likely to arise whilst travelling in an area where the language is spoken. Can produce simple connected text on topics which are familiar or of personal interest. Can describe experiences and events, dreams, hopes & ambitions and briefly give reasons and explanations for opinions and plans.
Basic User	A2	Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.
	A1	Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. Can introduce him/herself and others and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has. Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help.

7.7 Appendix Seven: SILL individual question scores by cognitive style group

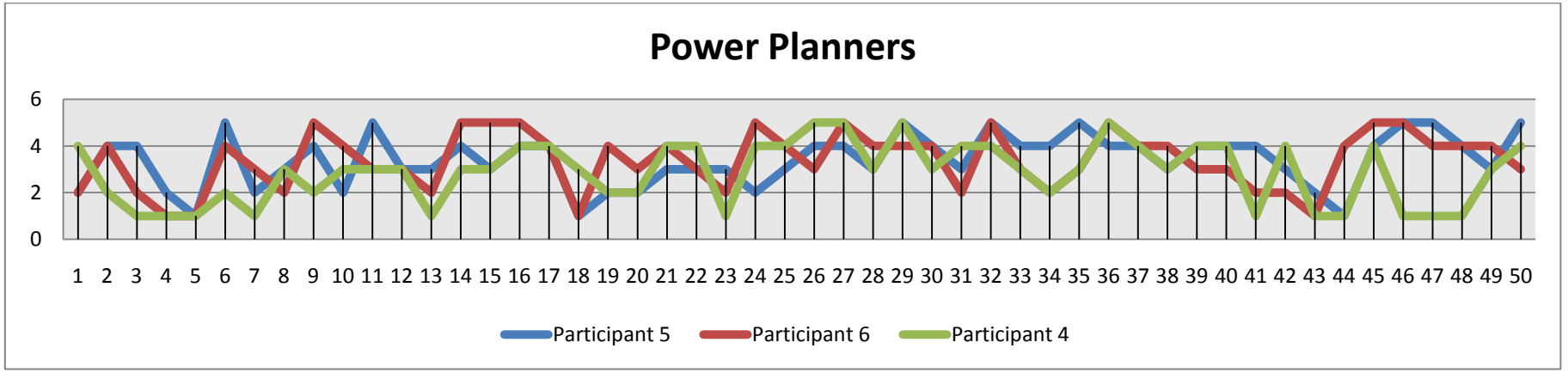


Figure 1

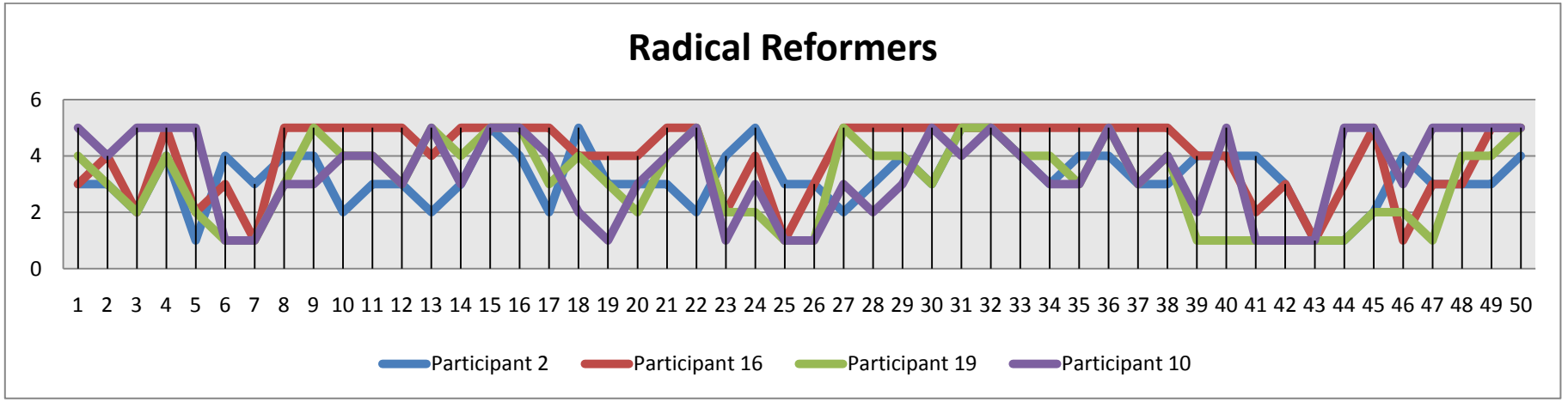


Figure 2

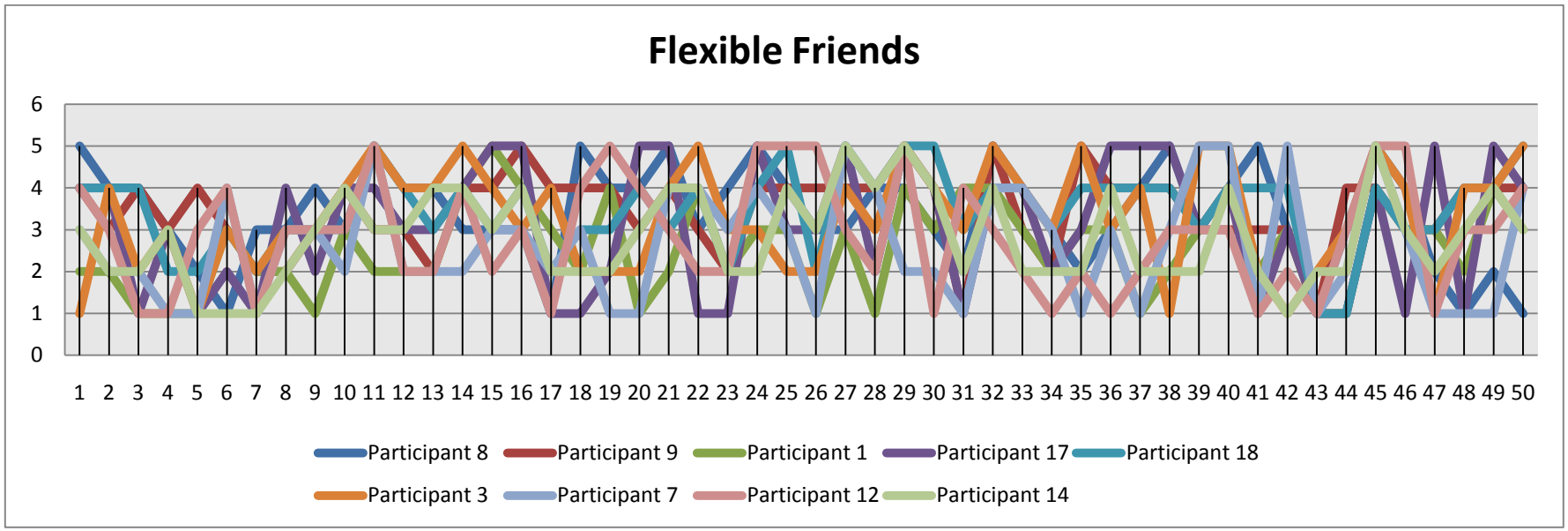


Figure 3

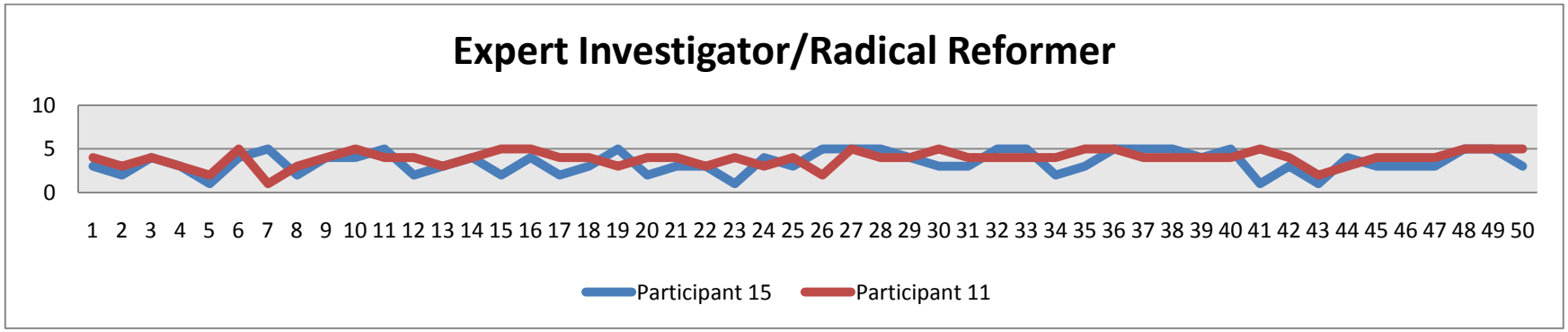


Figure 4

7.8 Appendix Eight: SILL individual question scores for successful and unsuccessful learners by cognitive style group

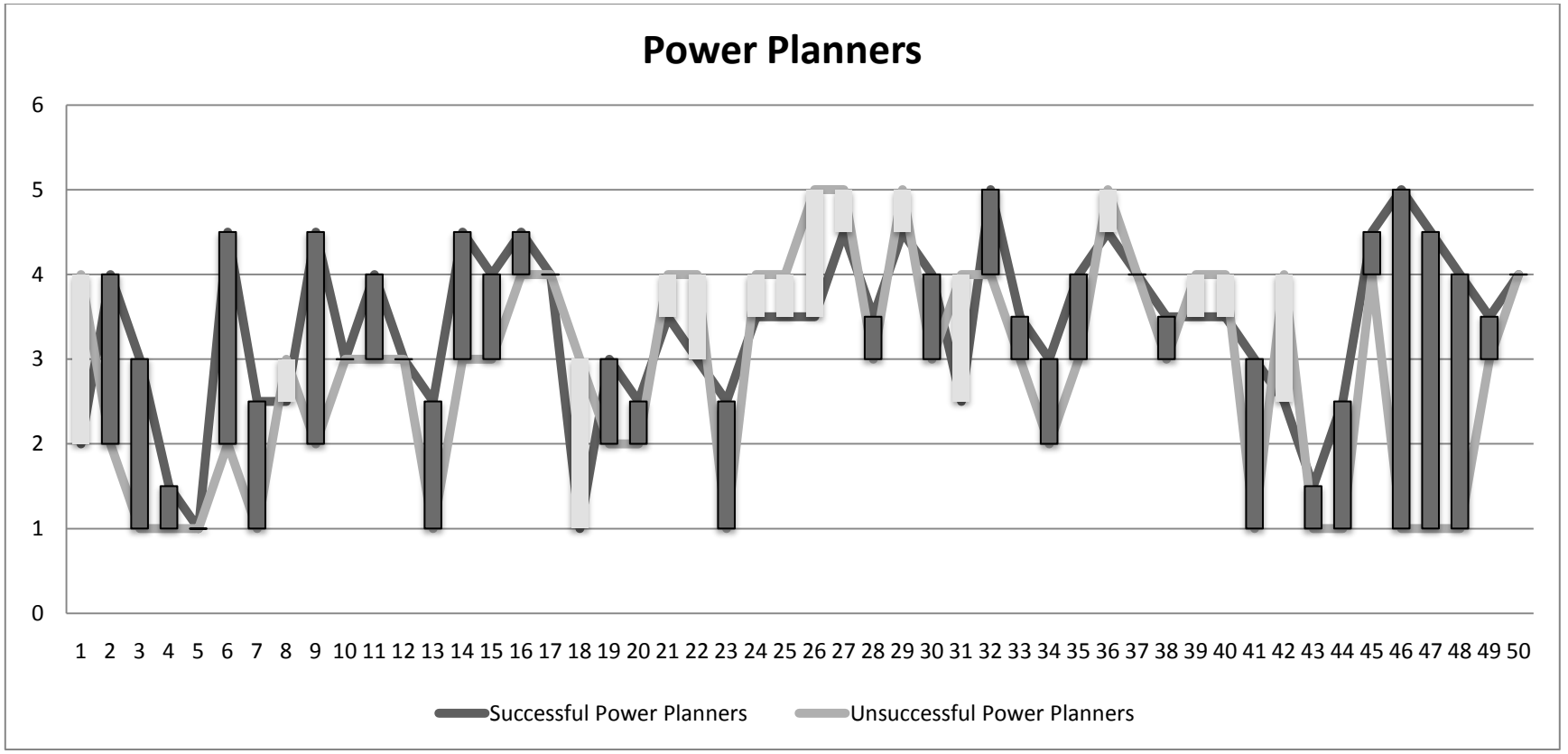
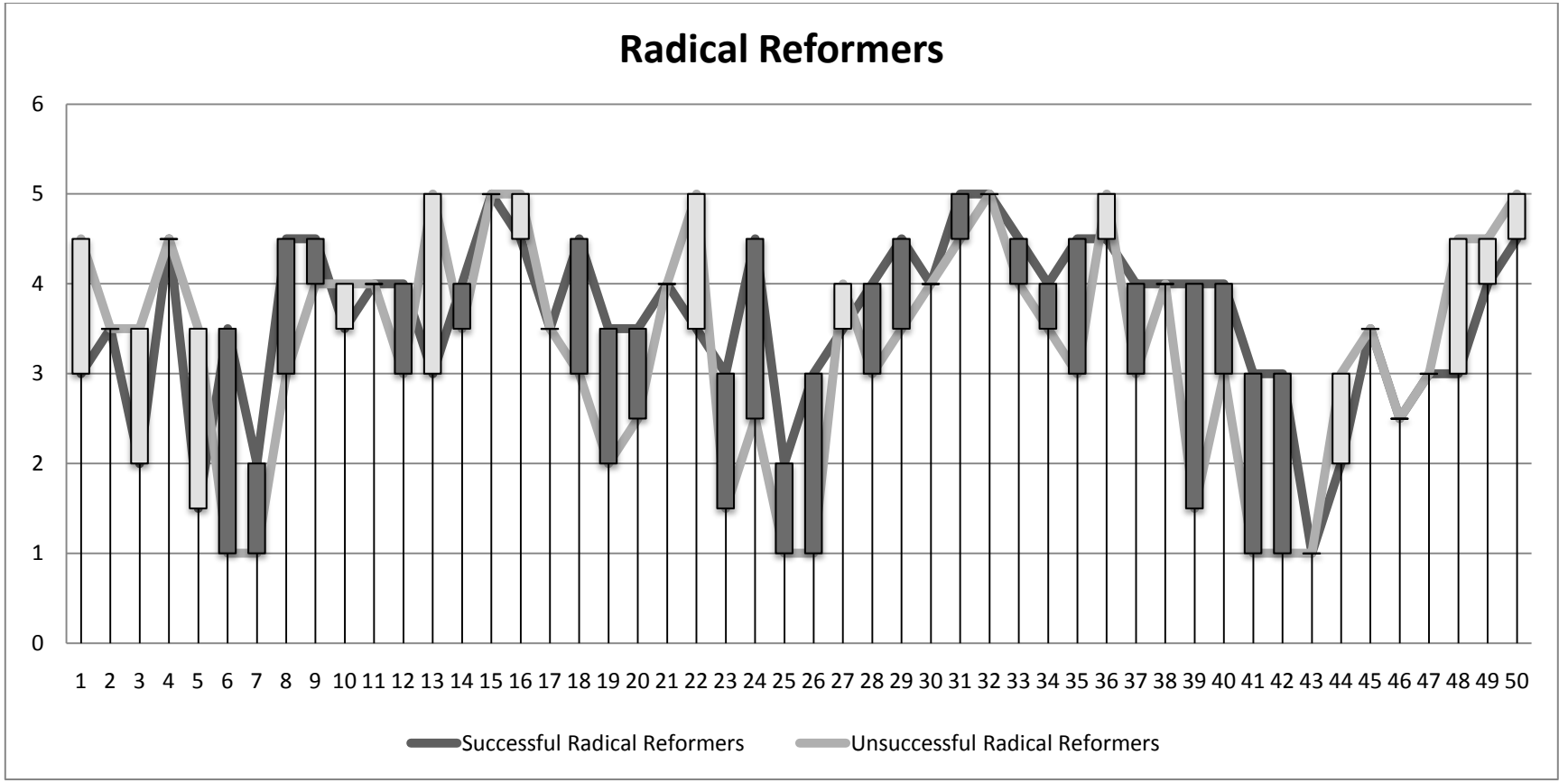


Figure 1


Radical Reformers
6
5
4
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2
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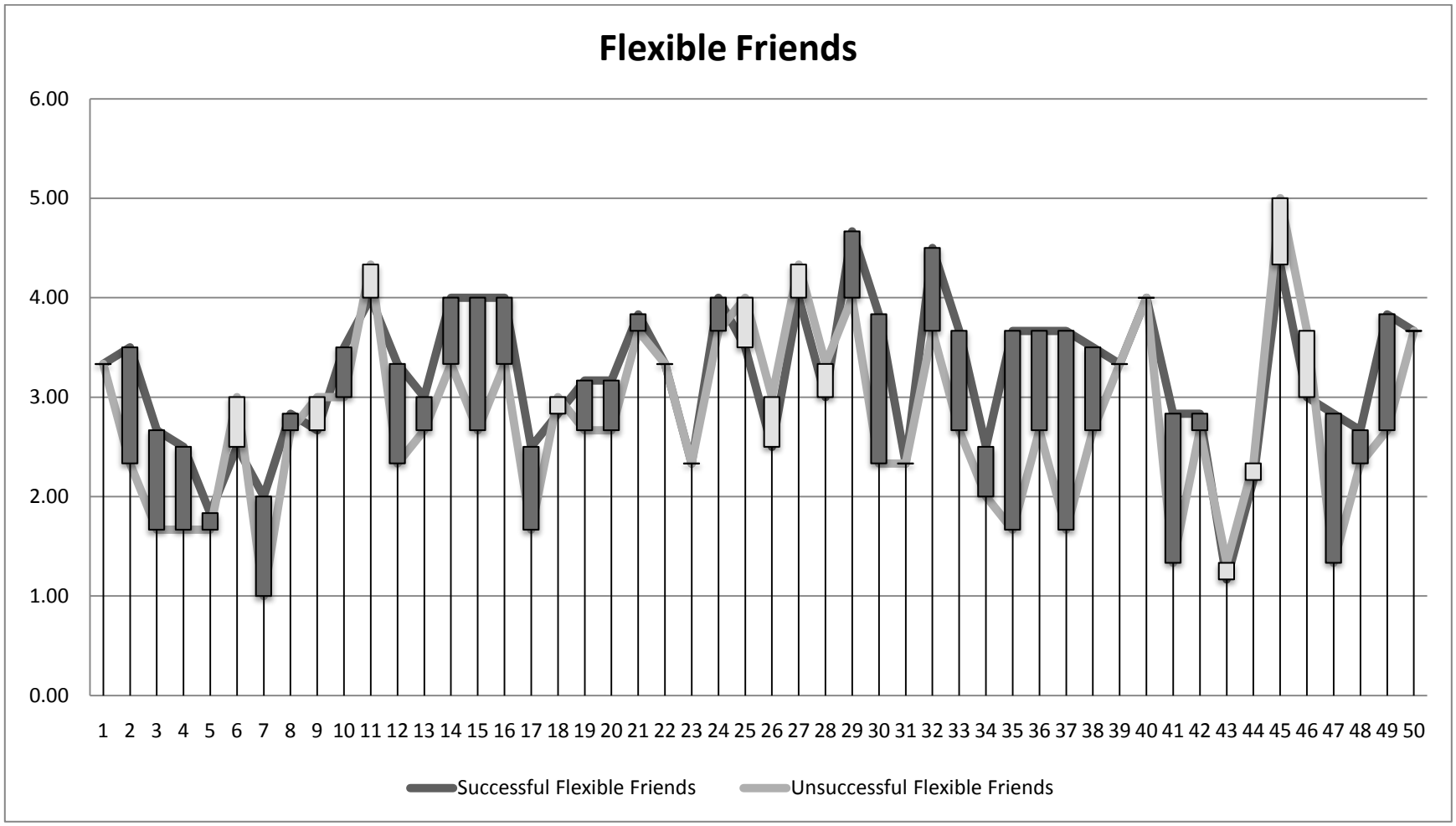
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
Successful Radical Reformers
Unsuccessful Radical Reformers

Figure 2


Flexible Friends
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3.00
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
Successful Flexible Friends
Unsuccessful Flexible Friends

Figure 3