The self-concept of Arabic and English speaking bilingual and monolingual pupils with specific literacy difficulties

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I certify that all material in this thesis which is not my own work has been identified and that no material has previously been submitted and approved for the award of a degree by this or any other University.

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Abstract

Researchers have conducted many studies to examine the academic, social and general self-concept of pupils of differing ages and in varied settings. Yet, not very much is known about the varied facets of self-concept of bilingual pupils and the monolingual who have specific literacy difficulties (SpLD). Furthermore, the influence of learning a second language on the self-concept or the motivation to learn a second language in the Arabic- English pupils in the Middle Eastern region has also not been addressed by any researchers. So, the main focus of this study was to examine the self-concept of bilingual (Arabic-English) and monolingual pupils who have specific literacy difficulties. The motivation to learn a foreign language and its impact on the pupils' English and general self-concept was also studied.

This study used a mixed methodology design using a systematic survey followed by purposive case studies. Established measures were used to examine each facet of the self-concept moving from the literacy in both English and Arabic (reading, writing and spelling) to the maths self-concept and to a more general self-concept, academic self-concept and school self-concept. Furthermore, this study also examined the non-academic self-concept such as athletic self-concept and social self-concept among a group of bilingual (Arabic-English) and monolingual (Arabic) who have SpLD. The study was conducted in Oman in a bilingual private schools and monolingual state schools which included 99 pupils. A Foreign Language Learning Orientation Scale/ intrinsic – extrinsic motivation was also designed to measure the motivation to learning English as a second language. In phase two, this study examined the consistency between the pupils' and Arabic and English teachers' interview reports and the pupil's questionnaire for 6 bilingual pupils who had SpLD.

This study compared 4 groups (monolingual SpLD, bilingual SpLD, monolingual typical literacy level and bilingual typical literacy level). The quantitative results showed differences between the four groups in terms of the self-concept. There were no differences in terms of the self-concept between the monolingual SpLD and bilingual SpLD in any facets of the self-concept. However, there were a significantly lower Arabic handwriting self concept, Arabic spelling self-concept and general school self-concept for monolingual SpLD pupils in comparison to their peers who had typical literacy level. Also bilingual pupils with SpLD showed significantly lower English reading self-concept, English spelling self-concept,

and the general school self-concept than for the bilingual typical literacy pupils. The last comparison showed that there were significantly lower Arabic reading, Arabic handwriting, and Arabic spelling self-concept for the monolingual typical literacy levels in comparison to their bilingual typical literacy peers. In terms of intrinsic extrinsic motivation there were no significant differences shown between the SpLD bilingual and the bilingual typical literacy levels groups.

According to the case study analysis there was a general inconsistency between the pupils' interview and their questionnaire reports for their general, English and Arabic self-concept and the intrinsic and the extrinsic motivation for learning a foreign language. In many cases the pupils were negative about their literacy self-concept according to the questionnaire, but they perceived themselves more positively in the interview. In general, there was a tendency for both quantitative and qualitative results to indicate positive social self-concept for the bilingual and monolingual pupils who had SpLD and the 6 case studies. It was concluded that as research into self-concept of the bilingual (Arabic- English) is not well developed, more research is need in this area, especially in the Middle East using the same methods from this study. It is concluded that it is important for language assessors to consider assessing the literacy difficulties in two languages when the pupils are bilingual.

Key words: specific literacy difficulties (SpLD), self-concept, intrinsic and extrinsic foreign language motivation (I/E) motivation, LASS (8-11), bilingual and monolingual SpLD.

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Chapter 1: Introduction

1.1 Overview of the study

During my career as a student counsellor, I have come across many pupils who have specific literacy difficulties and other related difficulties; the pupils were placed in regular classes in a mainstream school, yet those pupils had to be withdrawn from their classes on a regular basis to the resources room where they received educational services in reading, writing, spelling in both English and Arabic as well as mathematics. By observing many of them over the years and talking to others I have noticed that learning another language such as English and French, which is common in Lebanon, had a negative impact on the way they perceive themselves as learners. This led me to question the extent to which learning a second language has an impact on the self-concept of pupils who have specific literacy difficulties when it comes to measuring all areas of the self-concept such as reading and writing self-concept in comparison to the pupils who are monolingual and have specific literacy difficulties. Accordingly, this study examines the self-concept and the motivation for learning a second language among the bilingual (Arabic –English) and monolingual pupils who have specific literacy difficulties. The self-concept in this thesis will be taken to refer to an image or perception of the self and its attributes and can simply refer to the way the pupils perceive themselves in both academic and non- academic areas in comparison to their monolingual peers according to this particular study.

Specific literacy difficulties on the other hand, is considered to be a continuum difficulty that has no clear cut-off, which impacts primarily skills such as fluent word reading and spelling and can occur among the full range of intellectual abilities. Specific literacy difficulties is a literacy problem which can be difficult to identify clearly due to many varied methods of identification and due to the overlapping characteristics between those with SpLD and poor readers (Stanovich, 1996). Specific literacy difficulties has produced a substantial body of research although there is still no consensus concerning the definition or the terminology used, for this. Many terms such as "dyslexia", "specific developmental dyslexia", "specific reading retardation", "specific reading difficulties" and "specific learning difficulties" were used interchangeably to describe the difficulties occurring within reading and writing fluency and accuracy.

Specific literacy difficulties, is therefore used throughout this research study, unless an alternative term is utilized which is reviewed rather than just cited.
Self-concept moreover, is used interchangeably with other terms such as self-esteem and self- image (Burns, 1982) but can also be used to represent different meaning of the self (Lawrence, 2005; Burnett, 1996). Much research has been conducted about academic and non-academic self-esteem, self-worth and self-perception which is linked in some way to the self-concept. Some research in the area of self-esteem focused on the significant role parents or significant others play in the development of a pupil's self-esteem (Branden, 1995; Burns, 1982; Coopersmith, 1967; Emler, 2001; Harter, 1999; Kernis, Brown & Brody, 2000; Lawrence, 2006; Mruk, 1999); the Role of peers (Burns, 1982; Harter, 1999). Intervention programmes,(Emler, 2001); Haney and Durlak, 1998; Elbaum and Vaughn, 2001); Cognitive Behavioural Therapy (CBT) and Rational Emotive Therapy (RET) programmes on children's self-esteem (Burnett, 1996); Yet, the research in this area according to the following electronic databases, which were searched between 2012 and 2017 such as PsychINFO, ERIC (Educational Resource Index and Abstracts), Web of Knowledge, British education Index and Education research complete, yielded no studies which focused on the specific areas of the self-concept of the pupils who have specific literacy difficulties or those who are bilingual Arabic- English learners

1.2 Objectives of the research study

One of the core aims in conducting this research study is to investigate whether the self-concept of bilingual pupils with SpLD differs from that of monolingual pupils with SpLD in a Middle Eastern context. I have focused on certain dimensions of the self-concept using Shavelson's hierarchal structure, (Shavelson, 1990) moving from the global self-concept to the subject (English-Arabic), to academic and non-academic self-concept (social and athletic). I also compared the self-concept of the students who are monolingual typical literacy level with those bilingual typical literacy level so I could compare between the SpLD pupils and those who have typical literacy levels. There are other subsidiary research aims concerning various factors which may be associated with bilingual pupils with SPLD. These factors are: the pupils' intrinsic and extrinsic motivation towards foreign language learning and their attitudes towards learning a second language. This comparison is solely between the bilingual pupils who have SpLD

and those with typical literacy levels. The reasons behind eliminating the monolingual groups are that they learn Arabic language only. Since I have found that assessing SpLD pupils in two languages is rather a rare occurrence in many regions, I decided to do so in this study, which enabled me to also find out whether there are cross-linguistic phonological problems between Arabic and English. In other words, I aim to examine whether bilingual pupils with SpLD would have common problems in terms of the phonology between the two languages particularly in relation to non-sense words. To conduct this study by applying the above aims, I have chosen a mixed methodology, the reason behind choosing a mixed methodology is that in social studies the researcher needs a range of different techniques and data sources (Tashakkori, 1998). The study also discusses the methodological issues in terms of the use of quantitative and qualitative designs and then analyses the importance of the methods used in this study and the reason behind choosing them. I have divided this part of this chapter into two sections, the first part is when I discuss the philosophical assumptions of the positivist and the interpretive as two main paradigms and criticise the way they have been used in educational research; the second part is when I elaborate on the significance of the combined methodology that I am using in this study. In short the research design of this study utilised a scientific survey, a systematic questionnaire and a case study to provide a better opportunity to answer the research questions.

1.3 The aim and the structure of the study

During the last decade a great deal of studies have focused on the difficulties that face the pupils who have “learning difficulties”, yet, fewer studies investigate pupil's difficulties in learning to read two languages particularly when the second language, such as English, is considered to be the language of studying (with Oman as an example). The main aim of this study is to find out the differences in the hierarchy of the self-concept between the bilingual (Arabic- English) pupils who have specific literacy difficulties (SpLD) and are studying Arabic and English as two main languages and the monolingual pupils who also have also SpLD but study Arabic only as a main language. I also aimed to find out if the social self-concept of the bilingual (SpLD) differs from that of the monolingual (SpLD) due to the demands of learning a second language.

The thesis is divided into six chapters. These chapters follow in general the structure that is commonly used in journal articles on educational topics. The introductory chapter is followed by a review of the literature, methodological design, survey analysis, case study analysis discussion of findings and a conclusion.

1.4 Research questions (survey)

This study seeks to answer one main research question as well as several subsidiary research questions.

1.4.1 Main research question:

What differences are there between bilingual pupils with SPLD and monolingual pupils with SpLD in terms of these dimensions of self-concept?

a. General self-concept.
b. Arabic Literacy self-concept.
c. English literacy self-concept ((reading, writing and spelling).
d. Academic self-concept.
e. Non-academic (social and athletic) self-concept.

1.4.2 Subsidiary research questions

a. Are there any common mistakes, or any differences in results in terms of non-word reading between English and Arabic according to LASS (8-11) test?
b. What differences are there between bilingual pupils with SpLD and bilingual pupils with typical literacy levels in terms of Intrinsic and extrinsic foreign language learning motivation?
c. Are there any differences between monolingual pupils with SpLD and monolingual pupils with typical literacy levels in terms of dimensions of self-concept? (a),(b),(c), (d) & (e) [mentioned in details in Q1]?
d. Are there any differences between bilingual pupils with typical literacy levels and monolingual pupils with typical literacy levels in terms of dimensions of self-concept? (a), (b),(c), (d) & (e) [mentioned in details in Q1]? The tables below show clearly how the comparison between the groups is going to take place in this study.

Table 1: The comparison between the monolingual and the bilingual groups

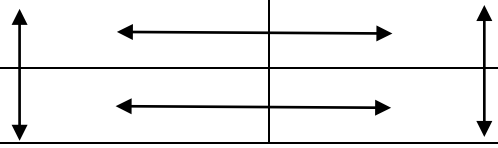
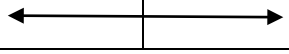
Area of measuring	Group1	Group2
Self-concept	Typical	SPLD
Monolingual		
Bilingual		

Table 2: comparison between bilingual SpLD and the bilingual typical literacy levels in terms of the intrinsic and extrinsic motivation

Area of measuring	Group1	Group2
Motivation (I/E)	Typical	SPLD
Monolingual	No comparison	
Bilingual		

1.5 Research question targeted the case study design

1. What differences are there between the pupils' interview the pupil's questionnaireand the pupils' English and Arabic teacher's opinion in terms of the:
    a. general self-concept
    b. Arabic reading self-concept
    c. English reading self-concept
    d. Social self-concept
    e. Intrinsic and extrinsic motivation?

Chapter 2: Review of the Literature

2.1 Introduction

The main aims of this chapter is to provide a literature review of the multi-faceted areas of the self-concept which was initially formed by Marsh/ Shavelson model, and to review the history of specific learning difficulties (SpLD) / dyslexia and highlight the various models of the notion of dyslexia. Along with that this chapter covers the area of motivation to foreign language learning. Due to the fact that this study aimed to examine multiple areas as mentioned above, finding the right literature was rather challenging. In the data base search I used the British Education Index, Australian Education Index, Education Research Complete, Eric, PscyINFO and others to find literature that covers the self-concept, motivation to foreign language, bilingualism and specific literacy difficulties. The key words used varied from specific literacy difficulties, learning difficulties, learning disabilities, dyslexia. Then I added words such as bilingualism, bilingual Arabic, English, Middle East, I have also added to the search words such as self-concept, reading self-concept, math self-concept, academic self-concept, verbal self-concept, literacy self-concept general self-concept, self-esteem, self-perception and others. On the other hand, while searching a literature for the motivation I used key words such as motivation to foreign language, motivation to language one, motivation to language 2, intrinsic motivation, extrinsic motivation, self-determination and others. I added to this search words such as dyslexia, learning difficulties and more, I sometimes added the Arabic language, Middle East. Although I have come across a large number of papers from the database search, none of them covered all the areas to be examined in this study in one study. So I have to add and remove from the search in order to obtain data that support my research. And to eliminate bias, I used all the options possible, so I did not miss any research that may be relevant to this study. As an example of this was searching with the terms bilingual learners, SpLD, English and Arabic. Every time I changed one word and make another search, by removing one word such as SpLD and replace it by dyslexia. I have used many key words over the last 4 years and did not find any single study that covers all the areas needed.

This chapter outlines three main areas which are learning difficulties, self-concept and motivation to foreign language learning. This study also focuses on two different types of learners who are bilingual and monolingual. This will also be covered in the first place to clarify these two key terms (Mono-Bilingual). I will start with the definition and the history of learning difficulties which has changed from the medical to the educational

terms and the debate that surrounds the terms used. I will also discuss the fact that there is no consensus of the definition of learning difficulties which has resulted in many models of identification. After that I will introduce and critically disuse these models which is also used in this study. The first model is the IQ/ discrepancy and the second model is the low achievement model, along with the phonological deficit hypothesis which was also used by many researchers as an identification model. This chapter also covered the definition of “learning difficulties” in the Middle East since this study took place in Sultanate of Oman. A brief introduction to the Arabic language will also be covered along with the differences between English and Arabic. I will then move on to highlight the definition of the self historically and how it was defined by the thinkers to become a hierarchy. The differences between self-concept and self-esteem will also be discussed and Marsh Hierarchal model of the self-concept will also be covered. Finally, I will introduce and discuss the motivation for learning a foreign language and the lack of studies that covers this area among the pupils who have Specific literacy difficulties. This chapter closes with an outline of the research questions of the study which are grounded on this literature review and will be examined empirically in the chapters to follow.

2.2 Bilingualism and monolingualism

The first thing to be clarified at the beginning of this thesis is the terms bilingualism and monolingualism since the participants in this study are either Arabic monolingual or Arabic-English Bilingual from the sultanate of Oman. According to much of the research, bilingualism tends to be understood in different ways and there were no clear cut off points between bilingualism, bilingual education, and development of bi-literacy (Grosjean, 2010). This has made it difficult for the researchers to identify the participants and to identify the different phases of acquiring a second language. But, generally speaking, people used to define a bilingual, as somebody who speaks, reads and/or writes in two different languages - one of them is their mother tongue. According to the literature there were variations in the definition of bilingualism, but a well known approach by Grosjean (1982) distinguishes between a fractional and holistic view of bilingualism. In the fractional perspective Grosjean postulated that bilinguals are seen as two - monolingual in one person. This means that each individual is developing a language competence equally in the two languages. In the holistic view Grosjean represents each bilingual as distinctive and can learn and combine knowledge from both languages to create a unique combination as opposed to learning each language

separately.

Grosjean's distinction (fractional and the holistic) reflects the fact that being a bilingual means making progress in thinking, speaking, reading and writing in the two languages. Hornberger (2003), by contrast focuses on the fact that bilinguals are more or less in the range from simultaneous to sequential, with the simultaneous bilinguals learning two languages equally from birth while sequential bilinguals master one language at a time, which is inevitably their mother tongue, and then develop proficiency in the second language. This is not always the case among all bilinguals or among the participants of this study. Pupils in Oman who took part in this study do learn a second language when in private schools from preschool but this does not mean that they use it after school or even during the breaks at school. For this reason, counting bilinguals on the basis of simultaneous and sequential distinction in all cases is a limited distinction. In some countries, such as Oman, pupils learn to read and write in the second language but have limited opportunities to communicate in the second language especially when other subjects, such as social sciences, sports, art are taught in Arabic. For this reason, it is useful to consider bilingualism according to further dimensions such as including age of acquisition, manner of acquisition, frequency of use, emotional attachment or affiliation, (Hamers & Blanc, 2000; Valdés & Figueroa, 1994).

Due to the fact that the literature showed that there is no consensus concerning the definition of bilingualism, I want to clarify that the term bilingual, which I use in this study, does not support Hornberger's, (2003) view, but it rather supports what Hamers and Blanc, (2000: 6) suggest; i.e. that a bilingual individual has access to more than one linguistic code for the purpose of communication, although the degree of access will depend on many dimensions such as the psychological, cognitive, psycholinguistic, social psychological, sociocultural and others. Being monolingual, on the other hand, is defined as someone who uses one language only as part of their daily life. This working definition means that monolinguals, as bilinguals, are placed on a sort of continuum. Monolinguals should communicate in their first language but also are able to study one or more languages although they might find it difficult to communicate with them.

In terms of bilingual education, Baker and Jones (1998) indicate that bilingual education is a generic term used to describe education in schools who use two languages. Cazden and Snow (1990) moreover, demonstrate that the term bilingual education is a simple phrase for a complex phenomenon. According to them there are many questions to be answered in order to decide whether a situation is considered to be bilingual

education. Some of these questions asked are about the amount of time each language is used in the classroom and whether they are used equally or not. He also pinpointed the importance of the background of the student's first language. Hornberger (1991) and Baker (2001) also argued about the necessity of the distinction between bilingual education as a technical term and bilingual education that is used anecdotally. According to them bilingual education means that a student uses at least two languages as a medium of instruction. Due to the fact that there is no consensus in terms of how to define bilingual education, each country and institution has their own way of defining bilingual education. In the schools where I conducted the research, each student who learn English as a second language is considered to be a bilingual.

2.3 The controversy of the terminology used for learning difficulties

Commencing any research by providing a definition seems very typical, however, this is not the case when it comes to defining the terms related to learning, literacy or reading difficulties, due to the variety of names that have been used by scholars and theorists. Thus, adopting a particular term reflects the researcher's opinion and understanding concerning the characteristics of the term and also the relationships of this difficulty with other forms, such as analogical intelligence or working memory. As mentioned in the above section, the term "word blindness" was used many years ago, however, this term has been replaced by others such as "dyslexia", "specific developmental dyslexia", "specific reading retardation", "specific reading difficulties" and "specific learning difficulties". Many of these terms refer to problems with reading or difficulties with words, however, the term "specific learning difficulties" has considered many other problems that are associated with reading problems, such as those of working memory or phonological awareness. The term specific learning difficulties was supported by Tansley & Pankhurst, (1981) in a report for the DES (the Government department of Education), yet this term has not always been in favour, when it comes to others such as teachers and educational psychologists in the UK, who prefer the term dyslexia (Pumfrey & Reason, 1991). Besides, the British Dyslexia Association advocated the use of the term "dyslexia" and defined it as a combination of abilities and difficulties that affect the learning process in one or more of reading, spelling and writing (BDA, 2009). Finding an appropriate terminology or giving names

to the problem that encompasses learning and literacy is still today a very uncertain area, which has enabled some researchers to use the above terms interchangeably without pointing out the differences between them. For the purpose of this study, I have used the term "specific literacy difficulties" (SpLD), which will be referred to throughout this thesis. The reason for using the term specific literacy difficulties rather than specific learning difficulties is governed by the focus of the present study being on the way literacy (reading and writing in two languages) might influence the bilingual pupil's self-concept. On the other hand, the term "specific learning disorder" is a general learning term denoting the broader learning difficulties that impact the overall academic achievement of pupils (The Diagnostic and Statistical Manual of Mental Disorders (DSM-5), 2013), while the term "specific literacy difficulties" narrows down the problems to literacy only. Due to the fact that the terms dyslexia or developmental "dyslexia" are used extremely widely nowadays, and have become an easy way to describe any learning problems, I decided not to use it in this particular study for two reasons: the first reason is that "dyslexia" was first referred to by Berlin 1872 as a medical condition term and continued to be known for its neurobiological origins (Riddick, 1996; Thomson and Watkins, 1998) with a genetic origin that had its basis in brain dysfunction (Frith, 2002) for many years; secondly the term "dyslexia" has been defined differently by many associations, which has made the use of the term rather imprecise. Besides its vagueness, this term has also been used informally to describe students as being "dyslexic", although it is presumed that their intention does not refer to its original meaning (Paradice, 2001).

2.4 The history of learning difficulties

2.4.1 Aphasia

Throughout the history of neurological investigations, which continued up until the 1930s, many researchers believed that the brain had a major role regarding learning, and learning disabilities in particular, and they often observed it as a single entity that had its own functioning system and unique factors in the way it works (Head, 1963). Researchers also presumed that the brain was the locus of human intellectual activities (Zawidzki & Bechtel, 2005). Inevitably, this concept about the way the brain works has changed dramatically over time especially since Gall's (1758-1828) new assumption about the functionality of the brain as he dismissed the fact that the brain is an entity and deduced that the brain consisted of various parts in which each part localised in a

different area of the brain and is in charge of specific intellectual and moral functions; what was called 'localization theory' (Zawidzki & Bechtel, 2005). Gall, moreover, asserted after investigating a number of brain injured soldiers, that there is a relationship between brain damage in the left frontal lobe and language disorders. Gall's phrenology theory was considered later by many physicians as a pseudoscience because it was based on the concept that the brain is the "organ of the mind", and that certain brain areas have specific localized functions. Although Gall's phrenology Ftheory was rejected by many physicians, the brain localisation concept nevertheless continued to attract interest from many physicians, one of whom was John Baptiste Bouillaud - the dean of the Medical School of the College of France. Although Bouillaud had grasped Gall's concept, he proceeded to build upon it with more scientific and clinical investigations, which focused on the idea that there is a relationship between the brain and language (Finger, 2000). Bouillaud's investigations opened the door for more investigations which focused on clinical assessment and autopsy in order to find out if there is any relationship between the functionality of the brain and language (Finger, 2000). On this account, the French anthropologist Broca (1861) found out after extensive examinations of his most famous fifty-year-old patient known as Tan, who suffered from epilepsy from an early age that he started slowly to lose his ability to speak overtime. After Tan's death the autopsy revealed that there was major damage in the third frontal convolution of the left hemisphere (Finger, 2000; Head, 1963) which became known later as aphasia and defined the inability to communicate adequately with words (Finger, 2000). Building on this work, the Scottish physician Jackson postulated in 1868 that each hemisphere in the brain works differently. Jackson's examinations of his patients showed different results according to the location of the brain damage; damage in the left hemisphere was perceived to be more relevant to language, while the damage in the right hemisphere appeared to be related to the perceptual and spatial functions (Finger, 2000). This type of language disorder was ascertained to be slightly different from the findings of the German neurologist, Wernicke, who demonstrated that the damage in the left temporal lobe of the brain was a result of sensory aphasia, where the patients were unable to make or comprehend speech, despite the fact that they continued to use non-sense or meaningless words (Zawidzki & Bechtel, 2005).

2.4.2 Word blindness, brain injury and mental retardation

The theory of “aphasia” continued to be developed by many physicians over the nineteenth century and revealed slightly different results (Jackson, 1868; Wernicke, 1874). The disorder of speech production and comprehension theory which was caused by the brain injury started to take different roots when in 1877 the German physician Kussmaul observed, (cited in Thomson, 1991) that according to his observations on his brain injured patients, despite the fact that they have adequate vision and intellectual abilities, they lost the ability to recognise written words. Accordingly, Kussmaul called this condition “word blindness” (Hallahan & Mercer, 2002) which was also described clearly by Miles and Miles (1990) as someone who can see the text, but is unable to understand it. The condition “word blindness” was also compared with another study conducted by a British physician called Morgan who demonstrated according to his case study of a 14 -year- old boy, who was described as having no brain injury, that the condition “word blind” can be congenital and was not always due to brain injuries. Although the child was very quick-witted when it came to playing games (Nelson & Sandin, 2005), he was still unable to recognise the written words even after a long time of dedicated teaching. Due to this, Morgan stated that this condition is more likely to be due to deficient development in the left angular gyrus” (Nelson & Sandin, 2005), which is why he came up with a different concept called “congenital word blindness” which meant that the inability to read printed or written words was present from birth and not acquired.

In opposition to Morgan’s theory the American neurologist Samuel Orton in the 1920’s, who according to Hallahan and Mercer, (2002) was a key figure in building a platform for the study of reading disabilities in America, rejected the term “congenital word blindness” and used the term "strephosymbolia" instead. This term focused on the reversals of the letters and the words which appeared in the speech and written language of the children studied. This did not stop, however, the concept of word blindness continuing to grow, and when an ophthalmologist called Hinshelwood carried out an autopsy on a patient with brain damage, he showed that the patient had lost the ability to read despite an adequate visual acuity. After the death of the patient, the autopsy showed that there was damage to the angular gyrus of the left hemisphere, which is what Morgan himself had postulated, and thus indicated that the area of the brain responsible for reading abilities is situated in the angular gyrus of the left hemisphere. Damage in this area is what can cause “reading difficulties”, which he called later “alexia” (Kirk, 1972). After that, Hinshelwood examined many other children

who faced reading difficulties and concluded that they either had a brain injury or immature growing of the left angular gyrus resulting in their difficulties with reading. As a result of this, Hinshelwood preferred to call the adult condition “acquired word blindness” or “alexia” and he referred to the children as having “congenital word blindness,” or "dyslexia" (Kirk, 1972). Moving on to the 1930s, another new concept emerged and was initiated by Samual Orton. Orton examined, within his mobile clinic, many children above the age of ten, in order to support them with any learning problems they encountered. As a result of his investigation, Orton claimed that “reading disabilities” were a consequence of either a delay or a failure in initiating dominance for language in the left hemisphere of the brain (Bender, 2004). This claim was theoretically different from the previous concept by Hinshelwood which asserted that reading difficulties were a result of damage in the angular gyrus of the brain. Orton called his finding “sterphosymbolia” and claimed that this explained why children reversed words while reading or reversed some of the similar letters such as p and q or b and d.

In 1978, Goldstein, who was a neurologist and a physician, came up with a different explanation for the relationship between brain damage and acquiring language skills, which made a significant difference to the way the brain was perceived. Goldstein claimed, after examining many patients who suffered brain injury due to world war one, that several patients showed behavioural and emotional deterioration such as stiffness, confusion, catastrophic reaction as well as hyperactivity (Hallan & Mercer, 2002). With reference to his findings Goldstein asserted that the damage to the brain caused many issues affecting the normal functioning of the brain's systems, rather than only language disorders. He called these issues “brain injury” that lead to a variety of behavioural and emotional problems which can impact on many features of human abilities (Kavale & Forness, 2003). Goldstein’s investigations took place alongside the work of two other leading researchers; Werner who was a psychologist and Strauss who worked as a neuropsychiatrist. Their investigations aimed to use Goldstein’s theory for children who were considered as 'mentally retarded' in order to find out if these children experienced the same behavioural and emotional problems as the adults reported in Goldstein’s finding (Hallahan & Mercer, 2002). Werner and Strauss’s identified two different sub-classifications which defined those who were known as 'mentally retarded' pupils. The first category was called “exogenous mental retardation” (Kavale & Forness, 1995) which involved a group of pupils who had a brain injury but were believed to have an average or above average “intelligence”. The second category was known as the “endogenous mental retardation” which classified the children who were known as

having either moderate or mild mental retardation along with their normal emotional and motor abilities. The “exogenous mental retardation” group was also named “brain-injured syndrome” by Lerner (2000) who categorised the children who expressed emotional and behavioural disorders such as hyperactivity, and nervousness (Hallahan & Mercer, 200). These emotional and behavioural issues seemed to be similar to those seen among the adults who had a brain injury in Goldstein’s findings. However, Strauss and Werner did not succeed in producing any evidence to prove that these emotional problems were due to a brain damage. Inevitably, this resulted in criticisms of the terminology. Furthermore, the investigation showed that the two researchers (Werner and Strauss) were trying to investigate children’s general psychological issues rather than studying the causes of any specific learning problems such as dyslexia or aphasia (Torgesen, 2004). Despite the criticism, Strauss and Lehtinen, (1974) continued their investigation and came up with a new concept called “minimal brain damage” as an indication of the abnormality of the brain structure. Bax & Mackeith (1963) later suggested using the term dysfunction rather than damage, which indicated the fact that there might not be structural changes in the brain but rather just deviations in the functionality of the brain (Clements & Peters, 1962 cited in Kavale & Forness, 1995). Subsequently, the term “minimal brain damage” continued to be used among many clinicians which helped them to identify various issues such as hyperactivity, attention deficit and any other learning difficulties (Hallahan & Cruickshank, 1973).

2.3.3 The initial use of the term “Learning disabilities”

The term “learning disabilities” as we know today was not born, according to Torgesen (2004), until the early 1960s. Although there were many researchers who were interested in learning more about children with learning problems, such as developmental aphasia, word blindness, dyslexia, brain injury and others. Samuel Kirk (1949) was first to start to form methods to identify and help pupils with mental retardation and perceptual handicap. At that time Kirk was still using these latter terms, when he talked about pupils with learning difficulties, until he received requests from parents and professionals who were dissatisfied with them as they believed that they stigmatised children with learning difficulties. Accordingly, Kirk was the first to use the term “learning disabilities” which had already been in use in Chicago since 1963. Kirk’s new term moreover, aimed first and foremost to combine the previous medical terminologies and to make the condition more acceptable within the educational environment (Bender, 2004). This combination, however, led to disagreement between

the medical professionals, the psychologists, and the educators represented by Hallahan, Kauffman, and Lloyd, (1996) about the nature of “learning difficulties” and the language used to describe the pupils with MBD and LD.

On the other hand, in the USA, and in agreement with Kirk’s new term, a group of parents and professionals formed an organisation to support pupils with “learning disabilities” now called “the Learning Disabilities Associations of America”. Their advocate later attracted more attention from the U.S. federal government, which formed three task forces to find out more about the nature of children with minimal brain dysfunction and/or learning disabilities. The task Force I, which was led by medical professionals and spear-headed by Clements, S. (1966) found out after studying a group of pupils who had minimal brain dysfunction 10 common features among the pupils who had minimal brain damage (MBD). These characteristics were summed up as; hyperactivity, perceptual-motor impairments, emotional disturbance, general coordination defects, disorders of attention, impulsivity, disorders of memory and thinking, specific learning disabilities (e.g. reading, writing, and spelling), disorders of speech and hearing, and equivocal neurological signs and electroencephalographic irregularities. According to these characteristics MBD was used to include learning difficulties alongside hyperactivity and attention problems. Yet, task Force I identified “learning disabilities” and attention deficit-hyperactivity disorders (ADHD) as two difficulties that interact together but in a complex way (Lerner, 2000). Thus, when task Force I perceived “learning difficulties” as a medical term; task Force II which was led by educators, utilised the term “learning disabilities” to describe an educational problem that focused mainly on behavioural characteristics rather than brain dysfunction as it is difficult to identify a dysfunction in the brain, and even if it were to be found, nothing could be done to solve it. Accordingly, “learning disabilities” is a condition that needs to be assessed and dealt with by educational professionals using educational methods only (Kirk, 1972). In the UK, although the word “dyslexia” was only one of a plethora of terms that was used over years to describe a discrete group of pupils with persistent literacy difficulties, it was not officially recognised until the publication of the *Code of Practice* (Department for Education and Employment, 1994). Despite the fact that “dyslexia” became a general term among parents, teachers and many educationalists, there have always been reservations from many authors regarding this term as some used it synonymously to mean “specific developmental dyslexia” (Pumphrey, 1996) or “specific learning difficulty” (Rutter and Yule, 1975).

2.4.3 The transition from medical to educational definition

By 1968, the use of the term “learning difficulties” had established itself and the U.S Office of Education formed the National Advisory Committee on Handicapped Children (NACHC) to help identify and classify pupils with “Learning disabilities”. The adoption of this term meant that for the first time “learning disabilities” were considered as learning problems which require special educational services (Kavale & Forness, 2000; Torgesen, 2004) and thereby the public law 91-230 was created in the USA. This definition highlighted the fact that “learning disabilities” is a disorder in the basic psychological processes and has initiated a new debate in this regard. The (NACHC) definition demonstrated that: *“Children with special (specific) learning disabilities exhibit a disorder in one or more of the basic psychological processes involved in understanding or using spoken and written language”. These may be manifested in disorders of listening, thinking, talking, reading, writing, spelling or arithmetic. They include conditions which have been referred to as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, developmental aphesis, etc. They do not include learning problems that are due primarily to visual, hearing, or motor handicaps, to mental retardation, emotional disturbance, or to environmental disadvantages” (Cited in Lerner, 2000).*

In 1975, the US Individuals with Disabilities Education Act (IDEA) as it is known today, adopted the definition of the National Advisory Committee on Handicapped Children (NACHC) and embraced the above definition but with some minimal modifications. Having said that, this definition was not the only one to appear between 1960 and 1975; there were at least 11 definitions formed in this era, which made it very controversial (Hammill, 1990); one of them was the definition formed by the National Joint Committee on Learning Disabilities (NJCLD). The (NJCLD) definition was rather different from the Federal definition because they excluded the “basic physiological processes” statement that was rather confusing (Torgesen, 2002) and they instead declared clearly that LD is a congenital life time disorder which occurs due to dysfunction in the nervous system. The variety of definitions regarding LD has made it debatable, but this has not stopped the researchers from finding common components among those definitions which are summarised as the following. The biological component; (LD is intrinsic to each person and is initiated from a central nervous dysfunction (Kirk et al., 2003). The process component; (“learning disabilities” shows deficits in the basic psychological processes (Mercer et al., 1996). The academic problem; (LD manifest itself in difficulties learning to read, write, spell and other arithmetic calculation and reasoning). The exclusion

criteria; (LD are not due to any environmental, cultural or economic factors). Lastly is the intelligence component (LD pupils show a discrepancy between attainment and their potential intellectual abilities (Kirk et al., 2003).

2.5 The development of identifying learning difficulties

Despite the fact that the definitions of learning difficulties have moved from the medical to educational perspectives, school medical officers in the UK were still conducting the assessments of pupils with learning difficulties by using intelligence tests designed by psychologists up to the early and mid-twentieth century. This situation started to change around 1970s when medical officers quit this role which became one for educational psychologists. This moreover only became official after the *Warnock Report,* (1978) which questioned the practice of medical officers using intelligence tests and categorising the pupils with learning difficulties. Besides the plethora of definitions used to identify the pupils with learning difficulties, these definitions did not include any helpful procedures on how to identify the pupils, which raised serious concerns among the staff in schools who pointed out that these definitions could apply to any pupil who struggles with academic learning and thus can be identified as having learning difficulties (Kavale & Forness, 2000; Hammill, 1993). Hence, the failure in finding a valid and practical way to assess the LD pupils in the USA between 1960s and the beginning of the 1970s, led the U.S. Office of Education in 1977 to suggest the term “severe discrepancy” to identify the pupils who are at risk of having “learning disabilities”. According to the discrepancy model, a pupil may show SpLD when there is a severe discrepancy between attainment and intellectual abilities in one or more of the seven areas which are: oral expression, listening comprehension, written expression, basic reading skills, reading comprehension, mathematic calculation, or mathematics reasoning (Algozzine & Ysseldyke, 1983).

2.6 Description of the discrepancy model

Employing the discrepancy model requires four criteria before determining if the pupil has specific literacy difficulties. Those criteria are summarised as: firstly, finding a discrepancy between the reasoning and the attainment, secondly, demonstrating a psychological/cognitive processing deficit, thirdly determining if the pupil's educational needs require a special services or not, lastly exclusionary considerations. The first criteria of this model is to ensure that there is a significant discrepancy between the

pupils' reasoning ability and the attainment. Despite the fact that there are a variety of methods used to determine if there is a significant discrepancy, the most common method used is to calculate the standard scores on the same measure of the reasoning and then compare them to the standard scores attained from the attainment tests used. Once the reasoning-attainment discrepancy criterion is set, a deficit in some areas of the cognitive abilities must be significantly below average on any measures which included auditory memory and visual memory. The third criteria to consider when deciding if the pupil has SpLD is to determine if he or she needs educational services, this can be decided by different authorities such as the school psychologist and any other involved professionals. The last criteria to determine that the pupil has SpLD are the exclusionary considerations. This means that the pupil has SpLD because of the three criteria mentioned above and not because of poor education, sensory disorder, mental health problems, emotional difficulties, social and economic problems or linguistic diversity. Generally speaking, the criteria mentioned above have not been clear cut off and can vary from one educational authority to another and according to different countries, this is why this model of identification has received a great deal of criticism.

Although the use of the discrepancy-attainment definition has moved the term LD from its neurological perspectives into more educational and socio-cultural understandings; it has however highlighted only the inadequacies and limitations that the students may encounter, and discarded any positive characteristics (Mortimore, 2008). This is evident in looking at the definition stated by the World Federation of Neurology: *"Dyslexia is a disorder manifested by difficulty in learning to read, despite conventional instruction, adequate intelligence and socio-cultural opportunity. It is dependent upon fundamental cognitive disabilities which are frequently of constitutional origin.' (WFN, 1968, p.21).*

We notice that the principle of this definition has focused on exclusion and discrepancy and has not focused exclusively on the deficits like other medical definitions did. A discrepancy definition, moreover, pointed out the gap between measures of intellectual abilities and literacy attainment (Reason and Frederickson, 1996), this discrepancy definition does also raise another issue about the difference between the characteristics of learning difficulties and the characteristics of poor readers (Stanovich, 1996) which often overlap with each other. On that basis, the U.S. Office of Special Education funded five pieces of research between 1977 and 1982 which focused on the decision-making process related to identification of pupils with learning difficulties, which were led by James Ysseldyke. Ysseldyke, Algozzine, Shinn, & McGue, (1982) compared a group

of pupils with LD who had already been identified by their schools with another group of pupils who are considered low-achieving. The researchers used 49 different psychometric measures to cover cognitive ability, academic achievement, perceptual-motor ability, self-concept, and behavioural problems. Ysseldyke et al., (1982) revealed the fact that the LD group showed no differences in comparison to the low-achieving group. On account of these results, Algozzine and Ysseldyke, (1983) conducted another study among 130 pupils who were identified as LD and low achieving. The two groups had average scores in their attainment tests and they also demonstrated limited scores in their abilities tests such as IQ. As the two groups performed similarly, the discrepancies between the attainment and the general abilities scores were obvious in the LD group, but this does not mean that the low achieving group showed less discrepancies. As a result, Ysseldyke et al., came to a conclusion that the LD pupils are not different from the low achieving pupils and they discarded the term LD and considered it as an “over-sophisticated” concept. Along with the above researchers a great number of studies were carried out during the 1990s. Among them were those by Fletcher et al., 1994; Francis et al., 1996; Stanovich & Siegle, 1994; all of their findings also revealed that there are no significant differences between the LD and non-LD (poor readers) because both groups also shared the same cognitive characteristics.

Whilst the debate around the discrepancy theory continued, Siegel (1989); and his colleague Stanovich, (1989) also doubted the accuracy of the IQ scores as an indicator of learning potential. Siegel, (1989) besides stressed the fact that the IQ test cannot be used to quantify potential and thus this test can only measure knowledge that the pupils had already acquired, such as vocabulary, some factual knowledge, or fine-motor coordination rather than evaluating their overall intelligence and abilities. As a result, few pupils who are facing academic problems in their primary grades exhibit the IQ-achievement discrepancy necessary to meet eligibility as pupil with risk of SpLD (Speece, 2002). According to the Commission, 2001, the discrepancy theory is what is called “wait-to-fail”, which means that the students must show a severe discrepancy between intelligence abilities and academic achievement (Lyon et al., 2001) before he/she can be recognised. With that being said, to find a sufficient discrepancy between attainment and an IQ the student must have studied at school at least up until nine years of age, which means the child would suffer emotionally and academically before he\she can receive proper educational support. Also it is estimated (>70%) that the pupils who did not receive early intervention will continue to be poor readers into the secondary grades and beyond (Fletcher & Lyon, 1998). In the United States for

instance, pupils who are at risk of having specific learning difficulties can be identified and receive services in schools through the special education framework (Individuals with Disabilities Education Improvement Act, 2004) only if they showed a severe discrepancy between achievement and intellectual ability" which is why many researchers justify moving to response to intervention approach (RTI).

The second criticism of the IQ- achievement discrepancy is the inconsistency of the way the practitioners apply this approach. This means that the pupils may be identified using different criteria of discrepancy. MacMillan, Gresham & Bocian, 1998; MacMillan & Speece, 1999 for instance found that, according to their studies, many of the pupils included in their studies did not manifest any significant discrepancy between the reasoning and the attainment, with some scores below 75 in the IQ test, which can indicate what was called a mild mental retardation or a mild intellectual disability, nowadays. This was because the difference was slightly different from the border line of the IQ. In this account it can become acceptable for the school practitioners to identify the pupils who are at risk of having specific literacy difficulties according to their perceptions of the pupils rather than to their discrepancy results.

Another criticism of the IQ- achievement discrepancy is the use of the intelligence tests as a crucial part of the SpLD identification. Going back in time to 1975, Rutter and Yule's rationale for using the intelligence tests as part of the definition of SpLD, was to help decide if a pupil's underachievement in a given area of academic attainment was expected or unexpected. According to these two researchers there were two types of reading underachievement difficulties, the first one was called the general reading backwardness (GRB) and was identified as someone who read below the level expected of his chronological age. The second one is the specific reading retardation (SRR) which was identified as someone who read below the level predicted by his intelligence. These two formed the basis for what is called later the expected and the unexpected underachievement. In the area of learning difficulties, the concept of unexpected underachievement was considered to be very significant and was used to identify the pupils who are at risk of SpLD. It is inevitable that if a pupil performs within the average range on some areas of intelligence that his or her attainment level is also in the average range. It is also acceptable if a pupil performs with the average range in the IQ test but his attainment is significantly below what would be considered average in that particular academic area. This last situation moreover, represented the core element of the SpLD as it is assumed that there was a correlation between the intelligence ability and the academic achievement. This correlation, however, has not

always been useful either for assessing the pupils or for the intervention.

Although there was a great deal of criticism around the discrepancy- achievement model, many researchers (Snowling, and Hulme, 1992; Mastropieri & Scruggs, 2002; Kavale, 2002; Snowling, 2012; Mather & Gregg, 2006), found this model acceptable to obtain an overview of the pupil's literacy difficulties and also helped exclude pupils who have clear-cut specific literacy difficulties from other underachieving pupils. The criticisms of the discrepancy model have led to the existence of a new approach called "a response -to- intervention" which has been around since the 1980s (Fuchs & Fuchs, 2006). The rationale behind this model of identification arose from the disagreement of many educators with the IQ- achievement discrepancy model and the use of norm-referenced tests. RTI was described as a process by which pupils who are at risk of having learning difficulties are given quality teaching, then their progress is recorded. Pupils who do not respond as expected to the new teaching methods are given additional teaching instruction and their progress is recorded again. As a result, pupils who continue to not show progress are entitled to special education services (Fuchs, Mock, Morgan, & Young, 2003). Advocates of this method of identification believed that a successful method in determining special education services should be grounded on structured progress data, with more flexible service delivery, along with monitoring the pupils on a regular basis. The original RTI model of identification was based upon a three-tiered prevention model. The first is the primary intervention which is made up of the general education programme; the secondary intervention which involved evidence-based small group interventions; and the last is the intervention which involved individualized and intensive services that are different from the most commonly known special education services. This approach was also used in identifying learning difficulties and was supported by many researchers and educators which has come to influence the US legislative system, the Individuals with Disabilities Education Improvement Act of 2004 (IDEA 2004).

2.7 Low phonological functioning

Due to the fact that phonological awareness helps discriminate, remember, and manipulate sounds at the sentence, word, syllable, and phoneme (sound) level, having problems with phonological awareness can cause specific literacy difficulties (Everatt and Reid, 2009; Riddick, 2010). The core of the phonological model is represented by the perception, coding and production of speech sounds that formed the process of reading and writing acquisition (Hatcher and Snowling, 2002). Accordingly, learning to

read in an alphabetic system embraces learning to integrate letters of printed words with their sounds, whereas learning to spell requires taking the sounds of spoken words away and associating them with the corresponding letters or spelling patterns (Hatcher and Snowling, 2002). The phonological deficit model demonstrated that the pupils who have specific learning difficulties establish certain difficulties in decoding single words which lead to another difficulty in spelling and reading accuracy and fluency (Riddick, 2010). Further research shows that pupils with SpLD also have difficulties in verbal short term memory such as memorising lists and dictation and difficulties in following the instructions. Along with that SpLD pupils also have difficulties in accessing phonological information from the long term memory such as memorising days of the week or learning a foreign language (Hatcher and Snowling, 2002). Yet, the most prominent difficulty the SpLD pupils show is manipulating and associating units of sound with their corresponding signs or letters (Snowling, 1998; Frith et al., 1998). Due to the fact that the alphabetic writing system manifested itself as being phonological, pupils who showed phonological awareness, often learn to read without noticeable difficulty (Riddick, 2010). This contrast with pupils who have problems with differentiating words verbally, those who are more likely to have trouble learning the alphabetic standards (Everatt and Reid, 2009). A great deal of research has postulated that there is a relationship between the phonology and the language and they suggest that the pupils who have poor phonological awareness can improve their reading skills through phonological awareness training (Wagner, Torgesen, & Rashotte, 1993; Nicolson and Fawcett, 2008a). This perception however may not apply to each and every language due to the fact that each language differs in the way it represents phonology in its orthography (Hatcher and Snowling, 2002; Everatt and Reid, 2009).

The reason for poor phonology has been discussed in certain ways. Hatcher and Snowling (2002) for instance claimed that the phonological difficulties are due to less-detailed and inadequately specified phonological representation, such as using chunks instead of grapheme-phoneme correspondence which impact on the way the pupil generalises the phonological knowledge when encountering a new word. Another explanation of the poor phonology was made by Frith, (2002) who indicates that there are some irregularities in the left hemisphere of the brain where the phonological basis rests. However, none of the brain-imaging studies have revealed any connection between the neural activity in the left hemisphere language system and the poor phonology among the pupils who have literacy difficulties. This explanation can then be considered as a hypothesis as no studies demonstrated its functionality (Paulesu et al.,

1996; 2001). For example, an incompatible result was found from the phonological remediation programmes in the United States as a group of pupils with literacy difficulties displayed adequate coding skills yet poor fluency and comprehension (Torgesen, 2001). Nicolson and Fawcett (2008a) suggested new findings about visual and auditory memory signifying that poor phonology along with poor visual and auditory memory should all work together as parts in the jigsaw puzzle. These new findings can explain why 20% of the pupils who have literacy difficulties have no problem with phonology as opposed to 80% who demonstrated phonological difficulties (Frith, 2002). These results have supported the existence of the double-deficit hypothesis (Vukovic and Siengel, 2006). This was first initiated by Wolf and Bowers, (1999) who suggested an alternative understanding for the literacy difficulties and claimed that the phonological functioning disorder and the processes regarding the naming speed are two different areas of reading dysfunction, and the combination of these two disorders can cause an extreme “reading impairment”.

The double-deficit hypothesis claimed there were three different types of reading difficulties; the first one is called the phonological-deficit subtype, the second one is the naming speed-deficit subtype and the last one is the double-deficit subtype which integrates the other two subtypes and results in profound reading impairment. According to Wolf and Bowers, 1999 pupils with poor functioning phonology have moderate reading deficit while pupils with poor naming speed have minimal reading deficit. Besides, Vuckovic and Siengel (2006) suggested that the rapid naming test can help identify reading difficulties and that naming speed is linked with difficulties in words recognition (Wolf et al., 1999). Despite the fact that the rapid naming hypothesis has been used in many pieces of research concerning reading intervention, there was no clear evidence that reading difficulties are due to lack of rapid naming which is why more research is needed in this area. On this account another approach to identify the literacy difficulties was revealed and called the triple deficit hypothesis. Accordingly, if literacy difficulties did not arise in some cases according to the double deficit hypothesis, the poor orthographic processing is added to the deficit in phonological awareness and naming speed (Badian, 1997). Besides, other research has also suggested that auditory processing (Tallal, 1980; Johanson, 1997) and motor factors seem to play a role in identifying learning difficulties (Stein, 2008) and dyspraxia in particular.

Despite some support for the low phonological functioning there are some common weaknesses in this model of identification. Firstly, many educational specialists,

psychologists and assessors questioned the feasibility of identifying pupils who were at risk of literacy difficulties solely according to the low phonological functioning disorder (Layton, Deeney, Upton and Tall, 1998). Accordingly, learning difficulties are more than just a phonology deficit and many pupils who have SpLD do not have problems in phonology. Secondly, if we identify pupils by only considering the low phonological deficit, it is assumed that a great many pupils will be missed out and this can cause serious problems later in their academic life and can make the intervention even more difficult. The third weakness was highlighted in the phonological tests themselves and their validity, as some used the segmentation and the non-word words, whilst others used different areas of phonology such as deletion, blending and decoding. These areas do not occur in every language, which can make this theory as relevant to English readers only. Another criticism of this theory is the fact that intervention in phonological processing programmes do not always work or can work only for a small percentage and not among all pupils (Torgesen, Morgan, & Davis, 1992; Torgesen, Davis, & Wagner, 1993). Therefore, identifying SpLD pupils requires a holistic understanding which includes not only the phonological awareness but also other aspects of learning such as auditory working memory, auditory discrimination, and visual memory.

2.8 Learning difficulties as a continuum

Although the initial debate concerning the origin of learning difficulties was regarding the neurological base and the brain anatomy. There were other considerable points of disagreement between the scholars, one was concerning the role of intellectual ability IQ in defining learning difficulties. The other was “the question of the continuum” which was first mentioned by Bryant, 1985 and has continued to be argued about for many years (See Rose’s Report, 2009). The Report revealed some relatively new principles that elucidated the understanding of “dyslexia”, whereby the expert advisory group has adopted the position that “dyslexia” is believed to be continuum and that there is no clear cut-off point when defining “dyslexia”. This addition to the definition of learning difficulties has been approved and accepted by the preeminent dyslexia organisations in the UK such as the BDA, Dyslexia Action, PATOSS, and The Dyslexia - SPLD Trust. Although the Rose’s Report, 2009 offered the most recent stance on “dyslexia”; some of its findings are in line with a number of previous identifications of “dyslexia”, but they are more focused on diminishing the Intellectual ability- discrepancy definition. The Report also highlighted the importance of phonological awareness abilities as

underlying markers of “dyslexia”. The following is the official description of dyslexia according to the Report: *“Dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling”; “Characteristic features of dyslexia are difficulties in phonological awareness, verbal memory and verbal processing speed”; “Dyslexia occurs across the range of intellectual abilities”; It is best thought of as a continuum, not a distinct category, and there are no clear cut-off points.* This definition lends credence to Snowling, (2008) who identified the primary difficulties of the young students in each learning stage, and highlighted the salient signs of “dyslexia”, including slow reading, poor phoneme awareness, poor word attack skills, and idiosyncratic spelling as well as problems with copying. In his report, Rose mentioned that phonological awareness, verbal memory and verbal processing speed are the essential features of dyslexia based on supporting evidence from Vellutino, et al. (2004); Snowling, (2008a) and others. Yet, what seems common among all these studies is that all the researchers agreed that some kind of reading and spelling difficulties might remain within the students’ life as the demand for fluency and accuracy is gradually increased with the school age. In addition, Rose, (2009) asserted that “dyslexia” can occur in students within a wide range of intellectual abilities, a conclusion which agrees with Miles and Miles’s, (1999) research study. On the other hand, he argued that there are many “co-occurring difficulties which have been seen in aspects of language, motor co-ordination, mental calculation, concentration and personal organisation, but these are not, by themselves, markers of “dyslexia” (Rose, 2009). These co-occurring difficulties, which have been found in many checklists to describe “dyslexia”, should not be considered as an identification of dyslexia, because all or some of these difficulties can occur both with pupils who manifest no sign of having literacy difficulties and those who maybe have more severe difficulties.

The report further highlighted the fact that “dyslexia” is “best thought of as a continuum”, not a distinct category, and there are no clear cut-off points” (Rose, 2009) This statement has raised another issue, which is the tension between the fact that “dyslexia” is considered a continuum on one hand and yet falls into a category on the other hand which seems contradictory. Secondly, this position reflects the continuum concept that underlines the language of specific literacy difficulties. Besides, this new perspective is considered highly important since it describes straightforwardly that “dyslexia” could be mild, severe or extremely severe. The pupils who may have learning difficulties will benefit from this model, because they will receive assistance at any level through provision of early intervention programmes. Yet, this theory does not consider

all learning factors in the identification of learning difficulties, such as phonological awareness and working memory (Fletcher-Janzen, Reynolds, 2008). It relies only on the screening method that may require more time than any other regular assessments in deciding whether the pupils are lagging behind their peers or not. To consider this theory as a success, it needs also to integrate an appropriate intervention programme. Aside from the controversy surrounding the use of this method in identifying the pupils, it was nevertheless rather helpful to use this method in this particular study.

2.9 Defining learning difficulties broadly

Given the wide range of diverse research studies offering different perspectives within the field of learning difficulties it has made it difficult to choose the right term. The British Psychological Society offers a completely descriptive definition to define learning difficulties when it stated that *"Dyslexia is evident when accurate and fluent word reading and/or spelling develops very incompletely or with great difficulty"* (British Psychological Society, 1999). This definition focuses on literacy at the word level and implies that the problem remains severe and persistent despite appropriate learning opportunities. Besides, the brevity of this definition prevents its wider application, as it fails to mention the age range of those affected by dyslexia, thus it is not clear whether this definition can be employed in case of both children and adults or only in case of children. Another issue surrounding this definition is the lack of operational aspects. On the other hand, this definition limited the learning difficulties to comprise merely the decreased ability to read and spell, and dismissed the emerging evidence which has underlined that difficulties in reading are linked to other deficits such as sequencing, memory, and vision difficulties when focusing on print words and also phonological deficits/ difficulties (Nicolson et al. 1992; Klein and McMullen 1998). The second most used definition formed by the "British Dyslexia Associations" which stated that: *"Dyslexia is a combination of abilities and difficulties that affect the learning process in one or more of reading, spelling and writing. It is a persistent condition. Accompanying weaknesses may be identified in areas of speed of processing, short-term memory, organisation, sequencing, spoken language and motor skills. There may be difficulties with auditory and /or visual perception. It is particularly related to mastering and using written language, which may include alphabetic, numeric and musical notation. […..] Else, Dyslexia can occur despite normal intellectual ability and teaching".* (British dyslexia association, 2009).

Such a descriptive definition fails to mention anything about the level of difficulties that should be met for a difficulty to become dyslexia. Also, it is not clear whether these difficulties are meant to be the specific learning difficulties due to the fact that these symptoms could be similar in regards to general learning difficulties as well. However, this definition states clearly that dyslexia does not affect only those lacking certain intellectual capabilities and is not always related to learning difficulties. On the other hand, the definition provided by the International Dyslexia Association which is also used by the US National Institute of Child Health and Human Development (NICHD) encompasses both descriptive and causal perspectives at the same time. According to this definition. *"Dyslexia is specific learning disabilities that are neurological in origin, often familial. It is characterized by difficulties with accurate and/ or fluent word recognition and by poor spelling and decoding disabilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective class room instruction".* (IDA Board of Directors, 2002). This definition states explicitly that dyslexia is caused by some neurological abnormality. However, the definition seems to have another causal aspect as well, since it states clearly that dyslexic difficulties are due to inadequate phonological skills. This theory is based on research over almost 20 years and is supported by a considerable body of evidence (Stanovich, Siegel, Gottordo, 1997, Snowling, 2004) yet, it is like many other theories, and does not claim that there is an international consensus over it. These three very common definitions were formulated in almost the same period, yet they present different perspectives, depending on the type of assumptions made, some of which are related to research findings; the former highlights the fact that dyslexia are not a discrete entity and its research can produce many different results.

2.10 Defining learning difficulties in the Middle East

On account of the fact that this study took place in the Middle East – Sultanate of Oman in particular - I endeavoured to take all the opportunities to find a substantial definition of the term "learning difficulties" or "dyslexia" which is used in Oman. Yet, there was no particular definition in this regard as most of the Middle Eastern education ministries seem to adopt either the American or the British model of learning difficulties and translate these into Arabic. An example of this is the use of the term "learning disabilities" which is translated into Arabic as *so'ubat al taall'um* which means literary

learning difficulties (Bazna, 2003). This term has been used formally and informally alongside the term “dyslexia” throughout the Middle East. Education in Oman as we know it today only took shape in 1930. In the past it was based in learning in mosques where teachers taught the Quran, Arabic language, and numeric and there were no clear criteria for evaluating education (Oman ministry of education- website). In 1970, when the Sultan Qaboos bin Said ruled The Sultanate of Oman, there were only 3 schools including 600 students which increased to become 207 schools including 55752 students over the first 5-year quantitative development plan which was followed by another 5-year quantitative and qualitative plan to increase the number of schools and the quality of teaching. Despite the fact that Oman has very little experience regarding special education needs, the ministry of education still provides educational services for students with certain educational needs; and as a result of their understanding and involvement, the ministry of education has categorised special needs into different groups such as School of Hope (Specialized schools for deaf); Special Education Needs Schools (Specialized for low IQ); School of Intellectual disabilities (Specialized for Intellectual disability); specialized school for the blind; Learning disabilities/difficulties processing program (at schools); Integrating program of special needs children (at schools). Hence, there was no resource which explained the criteria used to identify or categorise those groups of pupils. Other countries in the Middle East such as Saudi Arabia started to consider the term learning difficulties by 1992, when King Saud University began a teacher training programme which led to a degree in “learning disabilities” (Sheaha, 2004). This change only become evident with the publication of the ministry of education regulation of special education institutions and programmes manual in 2002 which defined the term “learning disabilities” as : *Disorders in one or more of the basic psychological processes involved in understanding or using spoken and written language which is manifested in disorders in listening, thinking, talking, reading, writing, spelling, or arithmetic and it is not due to factors related to mental retardation, visual or hearing impairments, or educational, social, and familial factors.* This definition was taken from the US office of education, 1977, and uses it as a platform to identify the students who are at risk of having learning difficulties. Adopting an American or a British definition is very common in the Middle East due to the fact that these two countries are considered "leading" in terms of learning difficulties. Another example of this is Qatar which also used an old definition of the British Dyslexia Association, 1995 that is no longer been used in the UK. This definition stated that: “*The term Specific Learning Difficulties applies to a small subset*

of Students with Learning Difficulties who have persistent long term difficulties because of the neurological basis of their problems". (Policy statement: Meeting the needs of students with Learning Difficulties, supreme education council, Qatar, March, 2009).

2.11 A brief introduction to the Arabic language

This study will not focus deeply on any aspects related to Arabic as a language, yet, having an overall review of the language can help clarify some features related to the identification of the pupils in both Arabic and English. Like many languages, Arabic is categorized in terms of its spoken and written forms. According to Daniels & Bright (1996), Arabic is a Semitic language; (Semitic languages are a branch of the Afro-asiatic language family originating in the Middle East); that has an alphabetic system known as "Abjad". Arabic, moreover, is stated as having a shallow orthography when vowelized and a deep orthography when un-vowelized.

As I mentioned in the paragraph (2.12) transparency reflects the way that the orthography of a writing system pictures or maps its phonology, for example grapheme-to-phoneme correspondence (Ziegler & Goswami, 2005). Arabic is both transparent and non-transparent; it is transparent when vowelized with diacritic markers (shallow orthography) and non-transparent when un-vowelized without diacritical markers (deep orthography). Nonetheless, most students are taught the vowelized form at an early stage which transitions to the un-vowelized form as they become older (Abu-Rabia, Share, & Mansour, 2003). This might lead to very contradictory results in terms of reading assessment - which is designed to be vowelized (LASS 8-11) - because I assume that this can be helpful for the pupils who are 8 years-old, but it is more likely to be fairly easy for the pupils who are 10 and above. Another important feature of the Arabic language is that Arabic is considered diglossia, which means it has two different versions of the same language with different sociolinguistic purposes (Ferguson, 1959). The first version of the language is called Modern Standard Arabic (MSA) and the second is Spoken Vernacular Arabic (SVA). The differences between these two versions are not in terms of the alphabets; as the two versions have the same consonant speech sounds with the exception of only three letters; (Farran, 2010) but in terms of the phonological components, which means if someone uses one version of the language, the other one is not used constantly. Spoken Vernacular Arabic (SVA) is mainly used in all daily conversations between people, and pupils can use it in school to communicate with their friends and even with their teachers. Arabic teachers, however, do not allow the students to use it in their classes, as the main aim of Arabic

classes is to teach them how to use Modern Standard Arabic (MSA) in its written and spoken forms. MSA is normally used in academic and formal contexts such as speeches and teaching, but is most commonly used in the media. Citing this literature about the two versions of Arabic pinpoints the fact that Arab pupils are exposed to (SVA) from the first day of their life, and that it then suddenly changes at an early age when they start school and are introduced to (MSA) as effectively their second language (Ayari, 1996). Consequently, the differences between the two versions of the Arabic language may lead - according to Farran (2011) - to poor phonological representations on one hand, and on the other hand it is likely to impact negatively on the language system which is related to sound-system mapping. Besides, Saiegh-Haddad (2004); (2007) stated that these differences had an impact on certain components of the language such as the phonology, morphology, and vocabulary as well as word reading (Saiegh-Haddad, 2003). Finally, although (SAV) may differ from one country to another within the Middle East, which could lead to some misunderstanding, MSA, however, is a common version of the language across the Arab world and it is understood clearly by all Arabic speaking countries regardless of their origins.

2.12 The differences between the English and Arabic languages

Understanding cross-linguistic correlation between English and Arabic requires the examination of both similarities and differences across the two languages. Each language has its own characteristics, yet, mastering the differences between Arabic and English is not crucial to this study and it requires a large amount of illustration. Thus, highlighting some of the differences between the two languages can add to this study as it can support some of the findings that reflect this particular area of research. Learning to read in English can be different from learning to read in Arabic. In English there is a one form of English which is used to speak and write, in Arabic however children are exposed to a new form of reading and writing when they first start school. This form of the Arabic language is known as the modern standard Arabic (MSA), as mentioned earlier, which can cause difficulties to young learners because they are not familiar with the written form of it and the pronunciation differences between the spoken version of the language (SVA), which they have learnt and spoken at home and the formal version. It could appear as if they are learning a totally new language (Ayari, 1996). Furthermore, the Arabic language is different from the English language when it comes to language transparency, phonology, morphology, vocabulary and cross

language transfer. Generally speaking, most languages are defined as either transparent or non-transparent; transparency reflects the way that the orthography of a writing system pictures or maps its phonology, for example grapheme-to-phoneme correspondence (Ziegler & Goswami, 2005). Accordingly, the Arabic language is considered unique in its identity, especially when it comes to its transparency, because Arabic is both transparent and non-transparent; it is transparent when vowelized with diacritic markers and non-transparent when un-vowelized without diacritical markers; whereas English is only known to be a non-transparent language. Transparency on the other hand, is seen to be a significant element in reading progress among monolingual and bilingual pupils in languages (Koda & Zehler, 2008; Zielger & Goswami, 2005).

Another aspect which is different between Arabic and English is phonology. Phonology has received a vast amount of attention in the identification of learning difficulties over the past few decades. Earlier, phonology was defined as the aptitude to use the speech codes that illustrate the information which represents words and parts of words (Vellutino, Fletcher, Snowling, & Scanlon, 2004). Yet, the differences in phonological awareness differ from one language to another, which is the case between English and Arabic. Cross linguistic studies have also asserted that the cognitive process in reading and reading acquisition play a significant role in learning to read (Snowling & Hume, 2005). As I mentioned earlier, the vowelized texts with diacritical markers have a significant role when it comes to reading in Arabic, due to the fact that these diacritical markers act as a short vowel. Mis-pronouncing these marks can completely change the lexical meaning of the word; besides, the un-vowelized Arabic words contribute mainly to the lack of phonological information, which is similar to the irregular spelling-sound as identified in English (Farran, 2011). Consequently, Elbeheri, Everatt, Reid & Al Mannai (2006) asserted that many Arabic words appear to the readers differently when out of context, highlighting the fact that there are two scripts among Arabic language; one is shallow script when diacritically marked, while the other is deep when these marks are taken out. This is the reason for stating earlier that having vowelized words/sentences can enhance reading progress for pupils especially those who are taught to read un-vowelized texts. Saiegh-Haddad and Geva (2008b) investigated the relationship between Arabic and English in terms of phonological awareness and the results showed that there are cross-linguistic relationships between English and Arabic despite the fact that these two languages are different in terms of phonology. These findings supported the consensus that phonological awareness is a cognitive-linguistic construct which is not related to any particular language. Furthermore, Farran,

Bingham, & Matthews (2002) found in their research, which aimed to find any cross-linguistic relationship between English and Arabic, that there is a positive correlation between phonological awareness in Arabic and English when they tested elision, blending pseudo words and decoding. Also, Abu-Rabia (2004) found when testing pupils who have learning difficulties (SpLD) that the pupils showed poor phonological skills in Arabic when they were tested on phoneme deletion. Transparent orthographies, such as English, appear to stimulate quicker improvement of word recognition and non-word decoding. This implies that literacy difficulties at a word-level may be less apparent in languages that have straightforward relationships between letters and sounds (Everatt and Reid, 2009).

Additionally, the difference between English and Arabic is evident in the strategies that the pupils use while reading. In English, word recognition can be read through context-free orthographic which is independent from grapheme-to-phoneme correspondence (Stanovich, 2000). In Arabic however, pupils read according to the text; if the text is not vowelized they depend on contextual cues to achieve word recognition (Abu-Rabia, 2001). Abu-Rabia, 1997; 2001; Abu-Rabia & Taha, 2004; Elbeheri & Everatt, 2007 postulated that reading in Arabic requires phonological processing skills such as phonological awareness, phonological memory, and naming speed. Those skills also known to be significant cognitive processes in English and Arabic and must be identified in both English and Arabic. This however was not supported by Anthoney et al. (2005) who asserted in his study that the bilingual learners can be assessed in either language one or language two due to the fact that the phonological processing skills are a cognitive process that can occur in any language.

Morphology is also found to be different between English and Arabic. Morphemes are considered to be the smallest component of the meaning in any language. Morphological awareness is the capability an individual to reflect on and employ morphemes (Carlisle, 2000). The English language has a transparent morphology which means the sound and the meaning of a compound word can be deduced from its internal morphological structure (Elbro & Arnbak, 1996) which helps young pupils to produce new words from its stem by using parts of the words such as prefixes and suffixes to make a new word. Arabic however is more complex in terms of morphology as is has a more opaque morphology and word production is both linear and non-linear, unlike English which is always linear. In Arabic, word formation includes the simultaneous affixation of a consonantal root which carries the meaning of the word, along with a pattern which contains a vowel template (Abu-Rabia, 1997). However, the

root and the pattern can never make a word by themselves and they only work as bound morphemes. The role that morphology played across the English language (Mahoney, Singson, & Mann, 2000) and the Arabic language (Saiegh-Haddad & Geva, 2008; Abu-Rabia & Taha, 2004) was crucial, especially as it continues to develop through the primary school years (Ku & Anderson, 2003). Besides, morphological awareness is connected to various reading elements such as word reading (Deacon& Kirby, 2004), non-word reading (Nagy, Berninger, & Abbott, 2006), reading comprehension (Deacon& Kirby, 2004), vocabulary (Ku & Anderson, 2003) as well as reading morphologically complex words (Saiegh-Haddad & Geva, 2008). Both phonological awareness, and morphological awareness can be assessed implicitly and explicitly. At the first level, pupils should acknowledge that word pairs are morphologically related (Duncan, Casalis, & Cole, 2009). However, at the explicit level pupils must initiate a response from morphological decomposition tasks (Carlisle & Stone, 2005). Research on the importance of morphology in the bilingual context showed that by recognizing morphological units in language one can ease vocabulary learning in language one and language two especially for those who have problems with learning vocabulary (Ku & Anderson, 2003). Another factor to consider in the relationship between language and reading across the languages is the cross-linguistic transfer. This describes the extent to which components such as phonology, morphology, and semantics transfer from one language to another. For instance, phonological processing skills transfer from one alphabetic language to another (Durgunoglu, 2002; Durgunoglu, Nagy, & Hansen-Bhatt, 1993) and from English to Arabic (Saiegh-Haddad & Geva, 2008), but with little evidence for this specific tranfer. Concerning vocabulary, there was also a lack of evidence of transfer of vocabulary from language one to language two (Hammer et al., 2004), which is why more studies are needed to ascertain if there is any vocabulary transfer between any two languages especially between English and Arabic as there is a lack of evidence, according to my research, among certain data bases.

2.13 Understanding the self

Over the decades many psychologists have shown interest in the subject of self and due to this they conducted a great deal of research in order to reveal some facts about the concept of the self. Although it has not easy to unravel its ambiguity, they have managed to understand some key aspects of human personality through individual behaviour. Besides, a great many researchers have considered the self-concept to be

a significant psychological construct which impacts many aspects of the individual's personality. Yet, in order to understand how the self-concept has been defined up to today, it is important to take an overall view of the historical background of the self and then move on to differentiate between some common concepts of the self, such as self-esteem and self-concept. The history of theories about the self, first started with James (1890), Cooley (1902), Mead (1934), Adler (1927), Sullivan (1953), Combs and Snygg (1959), Rogers (1951), Epstein (1973) and Allport (1955). William James, 1890 was the first psychologist to consider the self as a psychological construct which was described in his two-volume chapter "The Consciousness of Self' (1890). James however was very broad in his definition of the self and he defined it as everything a man owns. James, moreover, differentiates between the self as a knower and he considered it as an ego yet had no value for understanding the person's behaviour. The second part is the self as an object of what is known, which is considered to be everything that is related to the person.

James had a unique view when it comes to social self. According to him, social- self arises from the recognition an individual obtains from his peers and can vary according to the people in his or her life. Concerning the spiritual self, James considered it as the centre of all consciousness and it is the most active element because it is the core of interest, effort as well as attention. James, moreover, introduced what is called self-feeling which is part of the spiritual self and it refers to the position each person has in the world whether he is a success or failure. This also shapes a person's self-esteem as s/he sees her/himself in comparison to others. The division James made to the self which can be summarized as material, social and spiritual, emphasized the fact that each individual conceptualizes his or herself according to each subdivision. Cooley, 1902 on the other hand focused more on the social interactions in developing the self and he claimed that this social interaction formed later the self-concept. He also considered that the feedback obtained from people is the most significant data source about the self. Furthermore, Cooley initiated the Looking-Glass-Self Theory which means that the self-concept of an individual can take its shape according to what others think of him or her. Moreover, Cooley, 1902 claimed that each individual has an "ideal self" which consist of three main components; the first one is called the imagination of our appearance according to others, then the imagination of his judgment taken from that appearance, and finally self-feelings such as mortification. After Cooley another thinker Mead (1934). Built on his work and amplified the fact that the social environment has an impact on the self; Mead explained the way the self was enhanced through

interaction with the environment and she believed that the self is a social phenomenon. Furthermore, Mead also postulated that social behavior can only be seen as a long term process of social interaction through the development of mind, self as well as society. Mead also believed that the self is not in existence at birth. It is something that a person can obtain through social experience within the social construct (Mead, 1934). Along with that Mead initiated the concept of “I” and “Me” and he presumed that “I” is the reaction that a person has to a certain situation as he or she perceives it, while “Me” is the object a person forms of oneself form one’s own perception.

Mead also suggested that the self-concept can develop through the reactions and reflections obtained from other people's views towards the individual. Mead also shared Cooley’s points of view as both believed that self-perceptions developed through social interaction and this self is affected by the feedback obtained from significant others. Adler (1927) on the other hand believed that each person is born with the feeling that he is in a secondary position which is why every individual self has a goal to reach superiority. He thought that self-assertion was born from the fear of inferiority that a person may have; accordingly, a person develops a specific lifestyle which is unique to him. This lifestyle according to Adler depends on the nature of the relationship between the parent and the pupil and the age gap between the two of them. The individual who seeks a specific life style tries to control the imperfection, on one hand, and to compensate for any defect, on the other. This means that this lifestyle represents the creative power of the self which is mainly the capability each individual has to make his unique and appropriate life style. Adler (1927), postulated that the self is exhibited by each person through experiences, yet, those experiences are not by themselves a core element in creating the self. Adler (1927) believed that each individual does not make an effort to relate himself to the world outside but rather to his own elucidation of himself. Moreover, Adler believed that the environment and heredity did not play any role in determining the individual’s personality, although the way we experience these influences forms the basis of our attitude towards life and toward self.

Another noted theorist Sullivan (1953), who came after the work of Adler (1927), proposed ideas that were closer to how Cooley (1902) and Mead (1934) described the self. Concerning, Sullivan (1953), an individual's personality comes out through the interpersonal relationships whilst the self-concept makes an appearance through the relationships built in contact with significant others. Interestingly, Sullivan assumed that the self-system appears to protect the self from anxiety and seeks satisfaction. Hence the self is something that can be built and developed through the encouragement and

appraisal an individual obtains from parents which is why the self is a learned phenomenon. Combs and Snygg (1959) further developed ideas about the self, focussing on the way an individual thinks and behaves is very relatable to the way he sees himself and his capability. They also defined self-concept as the "perception of self" which included "I" or "Me" although, the self is the core element around which all other perceptions are built. Combs and Snygg also determined that the self is a social outcome which is enhanced through social interaction, and a person knows more about himself from his own examination and observations. Hence the most significant part of an individual is what they called "self-learned", because a person can learn through his interaction with others. These relationships and the way he behaves towards those significant others is where a person can obtain knowledge about himself. Another important source of experiences an individual can have is from his family. Combs and Snygg suggested that a family gives early experiences of capability and incapability along with early experience of acceptance which can impact the self-concept of any particular person. Another theorist Carl Rogers (1951), also demonstrated the self is the core element of the personality. In his theory which is known as "self-theory" Rogers believes that the structure of personality is based upon the organism, and the self is a portion of the phenomenal field. The organism is perceived as the focal experience that an individual obtains which includes everything available to their awareness. Carl Rogers (1951), also theorised that the self is the core element of one's personality. In his theory which is known as "self-theory", Rogers believed that the structure of personality is based upon the organism and the self. Hence the organism is perceived as the focal experience which includes everything available to awareness and all that happens within the organism. The self or self-concept belongs to that structured group of perceptions that refer to "I" and "Me", which are self-referential. According to Rogers, the self is a basic element in the development of personality, and he considered the self as an array of perceptions which consist of an individual's characteristics and abilities; the self in relation to others and to the environment; the value of things which are related to experiences. Accordingly, Rogers believed that the self is mainly self-awareness because he assumed that the self is a structure which takes its shape from the experiences one can assign to one's body and one's behavior. Rogers (1959) also postulated that the development of the self-concept during childhood is crucial. This is because when a child obtains unconditional positive feedback from his/her parents who are external sources, then s/he is willing to internalise this positivity and help their self to be developed positively. This is later called the self-regard, which is significant in

developing the self. In 1955 Gordon Allport developed the theory of self, grounded in the idea of purposeful sensible individuals, who manage their destiny through aspiration. This self involves all areas we consider as crucial and intimate to ourselves and is central to our existence. From this definition Allport, (1950) established a hierarchy of the self which leads later to our maturity. The first self is called the bodily self, followed by the self-identity of self, self- esteem, extension of self, self-image, self as rational, and self-striving toward self-enhancement. According to Allport's hierarchy, the development of the self, established itself according to the previous stage an individual experience through their interactions with their environment. These stages of the self, continued to grow in order to define the extension of the self which resulted in the appearance of the self-image. After Allport's comes Epstein (1973) who observed self-concept as a self- theory. His theory resulted according to the interaction between the individual's experiences and his functioning self. Epstein asserted that the self-theory mainly serves three important functions. First of all, it optimises the pleasure and the pain balance of the person throughout his or her lifetime. Then it tries to ease the prolongation of the self-esteem and lastly it attempts to organise the data of experience in order for it to be used efficiently. Apart from that Epstein (1973) postulated that the self-theory means that an individual need to make a distinction between the subjective world and the objective world which means distinction between the self the "non-self". According to the variety of theories concerning the nature of the self-concept, it is very obvious that all these theories are rather different, although they all present similar points of view about the nature of the personality as most of these theories were based on the work of William James (1890). James's theory of the self was, and continued to be, a significant base for the development of self-theories especially as he was known to contemplate the structure of the self as hierarchic.

2.14 Self-Concept and Self-Esteem

Like the definition of learning difficulties as discussed above, the self-concept also has no universal definition and some definitions have made it appear rather vague and very broad. The uncertainty of the definition has also made it difficult to distinguish between many interchangeable terms of the self, such as self-esteem, self-perception and self-concept. Rosenberg, (1965) defined self-esteem as an individual's judgment of his or her self-worth, while Schwalbe and Staples, (1991) defined self-esteem as the views one can have about himself which impacts the way an individual perceives himself. Self-esteem is mainly seen as the evaluative component of the self-concept, which is

a wider illustration of the self that encompasses cognitive, behavioral, evaluative as well as affective ones (Tomaka & Blascovich, 1991). It has to do with social competence, since it impacts the way an individual feel, thinks, learns, values himself, relates to others, and most importantly how this individual behaves (Marsh & Yeung, 1997). Questioning their school achievement can be a reflection of their low self-esteem and a way of getting attention from their peers (Kirk & Reid, 2001; Scott, 2004). There has been very little research examining the self- esteem of pupils who have “dyslexia”. A research by Rosenthal, (1973); Thomson and Hartley (1980), both cited in Riddick (1996) found that pupils who have “dyslexia” have lower levels of self-esteem which was also consistence by research conducted by Riddick (1995), (1996); Humphrey and Mullins (2002a). Furthermore, Peer and Reid (2001) suggested that disappointment can end up leading the pupils to be unsociable, especially among the pupils who have learning difficulties and have low self-esteem. Morgan and Klein (2001) also claimed that pupils who experience labelling and bullying can experience reinforcement of low self-esteem. On the contrary, pupils who have high self-esteem despite their learning difficulties can show more confidence and this helps them participate in the classroom and or try out new tasks. Pupils with high self-esteem according to Riddick et al. (1999) and Burden (2005) are more likely to to succeed and be more skilful as opposed to the pupils who develop low self-esteem. Various studies claimed that the academic achievement and the self-esteem are positively correlated (Bankston & Zhou, 2002; Lockett & Harrell, 2003; Schmidt & Padilla, 2003). Other research has also assumed that high self-esteem is correlated with educational achievement (Marsh, Byrne, and Yeung, 1999). Moreover, Humphrey, Charlton, and Newton (2004) claimed that the attainment levels influence the levels of self-esteem according. Also there is a clear evidence by few researchers that there is a reciprocal relationship between self-esteem and academic attainment of the adolescent yet, it was not consistent across all studies. In a study by Alexander-Passe (2006) it was found that the teenage pupils with “dyslexia” perform differently with respect to their academic achievement, and the results suggested that the females develop low general and academic self-esteem as opposed to their male counterparts, who happened to score normal academic self-esteem, below normal general, social and parental self-esteem. Furthermore, Humphrey (2002) found that pupils in mainstream schools who have “dyslexia had lower levels of self-esteem in reading achievement in comparison to the pupils who display typical literacy levels or to those who have “dyslexia” but in special units (Humphrey, 2002). Moreover, a great deal of research found that pupils who have

“dyslexia” encounter problems such as teasing and bullying and feelings of being unwanted (Humphrey, 2001, 2002, and 2003). Besides that, discrimination from teachers toward the pupils who have “dyslexia” have a significant impact on the way pupils perceive themselves as learners” (Osmond, 1993; Humphrey, 2001, 2003; Humphrey and Mullins, 2002b).

Self-concept was defined in different ways and has changed overtime from one researcher to another. Strahan & Wilson (2006) for instance, defined self-concept as an outcome of an individual’s personal memories. Previously it was identified by Burns, (1982) as an array of attitudes toward the self which included cognitive, affective and behavioural tendency dimensions. For Shavelson, Hubner, & Stanton, (1976) it was identified only as a self-perception. In a similar way, Eccles et al. (2005) defined self-concept as "an individual’s general composite of combined views of themselves over multidimensional sets of specific perceptions". These perceptions are grounded on self-knowledge and evaluations of the individual’s own accomplishments achieved through certain experiences with the interaction with the environment. Due to the fact that self-concept is not an easy area of the self to measure, narrowing it to a more precise topic such as social self-concept or reading self-concept can help obtain a clearer understanding as opposed to measuring the self-concept as a whole. This is where Shavelson, Hubner, and Stanton (1976) focused on the structure and composition of the self-concept and they believed according to their research that the self-concept can be multidimensional. This suggested that the self-concept had a multifaceted hierarchical structure.

According to this hierarchy, the general self-concept is considered to be at the top of the pyramid and it then divided into academic and non-academic self-concept. The academic self-concept consists of subjects such as English and Maths, while the non-academic self-concept consists of social, emotional, and physical self-concept. This model has substantial advantages for how self-concept has been studied, it has also helped researchers to develop more reliable instruments to measure the self-concept. Marsh (1988) in his research, which is based on testing Shavelson’s model, drew a very detailed model of the hierarchy of the self-concept. Self-concept was also agreed to be a very significant in the educational context due to its relationship to achievement. (Burns, 1982; Burden, 2010; Chapman & Tunmer, 1995; Eccles, Wigfield, Harold, & Blumenfeld, 1993; Marsh, 1993; Marsh et al., 1988). Marsh (2005) demonstrated that the pupil’s self-concept is dependent on their surroundings and he illustrated his perception as the big-fish-little-pond effect (BFLPE). He gave an example to explain his

understanding of the self by pointing out that if the average overall ability of the classmates tends to be high, then able students are more likely to have low academic self-concept. On the contrary, if the average ability of the classmates is low, then it is more likely that the able students will have a positive academic self-concept. In another longitudinal study, Chapman, Tunmer, and Prochnow (2000) stated that when pupils develop a negative academic self-concept, their academic skills tend to be low and also they can have inadequate phonological and reading skills in comparison to their peers who have typical academic self-concept. Burns (1982) in his longitudinal study summarised his research about the relationship between self-concept and academic achievement by demonstrating that both are considered to be reciprocal. Besides the relationship between self-concept and achievement, researchers such as Shavelson et al. (1976) highlighted the importance of the environmental reinforcements and the role that significant others such as parents, peers and teachers have in forming the self-concept of the individuals (Meeus, Oosterwegel & Vollebehrgh, 2002; Burnett, 1999). Accordingly, these social relationships become over time an important factor in evaluating the person's behaviours, successes and failures but according to Brittain (1968) some other factors such as feedback and any other environmental factors can have more influence than others.

The relationship between self-concept and academic performance was viewed as being both associative and predictive (Marsh & Seeshing, 1997). Yet, despite the plethora of studies in this area it is not clear which one of these two variables influences the other. Hence, Marsh & Seeshing (1997) asserted that there are four possible patterns or causal models between self-concept and academic performance. The first one is that the "Academic performance determines self-concept". Accordingly, the success or failure of academic experiences has an impact on the pupil's self-concept and self-image and not the other way round. (Henk and Melnick 1992; Michie et al. 2001). Due to the fact that the influencing variable is considered to be the academic performance and not the self-concept, it is important then for the psycho-pedagogic to concentrate on modifying the pupil's level of achievement because intervening properly can help change the level of self-concept. The second model assumes that "self-concept determines the degree of academic performance. This means that it is possible to enhance performance at school through self-concept enhancement; particularly levels of perceived competence (Marsh and Craven 2006; Skaalvik and Skaalvik 2009).

The third model is that self-concept and academic performance influence and

determine each other mutually. This means that self-concept has an impact on the individual's achievement and achievement has an impact on subsequent self-concept (Guay, Marsh and Boivin, 2003). Researchers who considered a longitudinal strategy such as Marsh & Yeung (1997); Marsh, Hau & Kong (2002); Valentine, (2002) exhibit evidence of reciprocal relationships between self-concept and academic achievement. From this model other authors suggested the occurrence of another variable which can impact both self-concept and academic performance. Those variables can vary between academic and non-academic, personal and environmental variables. Hay, Ashman and Van-Kraayenoord (1998) found in their study that pupils can have high self-concept in comparison to another group of pupils who have low self-concept, that the high self-concept pupils were well-known, interactive and had lower anxiety with high expectations of future success. Given that there has been a great deal of research that focuses on the relationships between academic self-concept and academic achievement, (see Ozgen 2013; Guay et al. 2003; Marsh and Craven; 2006), it can be concluded that academic self-concept is a significant element which impacts academic achievement and other educational attainment (Pajares and Schunk 2001). Moreover, the facets of the self-concept have been studied thoroughly among pupils with typical literacy levels yet, there have been few studies that focused on the self-concept among pupils who are bilingual and have learning difficulties. The relationship between the pupils who have "learning disabilities" and low self-esteem was studied by many researchers and have yielded some inconsistence results depending on the area of research. A Study by Vaughn & Elbaum 1999 found that the pupils who have "learning disabilities" have poor self-concept which was also supported with a study by Bear et al. (2002) who found that the pupils who have "learning disabilities" have poor self-concept and they perceive their academic achievement negatively in comparison to their peers who do not have any learning problems. Also it was stated that the pupils who have "learning difficulties" score lower than the pupils who are normally achieving, on the intellectual and school status and behaviour scales (Al-Zyoudi 2010). Furthermore, Zeleke (2004) claimed that the academic self-concept of the pupils who have "learning disability" is more negative than their peers who are typical literacy levels. Besides, Seleshi (2004) has argued the pupils who have "learning disabilities" has been found to have more negative academic self-concept than their peers who are typical literacy Levels. This finding however, does not mean that the same pupils must have negative social or general self- concept. Accordingly, Lewandowski & Arcangelo (1994) found that adults with "learning disabilities" have the same positive results in the

self- rating scales of self-concept and social adjustment likewise their peers who do not have any learning problems. In terms of the general self-concept Chapman, Bear *et al.* (1993) found a little yet none significant differences between the pupils who have “learning disabilities” and the non- achieving boys.

Chapman’s (1988b) conducted a meta-analytic review which examined 21 studies in order to find out if there are any differences between the pupils who have “learning disabilities and those who are normal achievers. Although Chapman found the the pupils who have “learning disabilities” showed lower general self-concept than their peers, the mean self-concept scores were around or above the normative average, which suggests that the majority of the pupils who have LD did not particularly have a low general self-concept. Gans, Kenny and Ghany (2003) found in a study targeting a group of Hispanic secondary school pupils, that pupils with SpLD had lower academic self-concept than their peers who had no learning difficulties. In contrast to these findings a meta-analysis done by Bear, Minke, & Manning (2002) asserted that there were no significant differences with respect to the global self-concept and social self-competence between two groups, one with learning difficulties and one with no learning difficulties. In terms of the self-concept among the bilingual pupils who have learning difficulties in the Middles East. No data was yielded at all in any facet of the self-concept or self-esteem or any other self, related measures. This is why I conducted this study in order to bring new attention to this area of research especially that no data was also found which examined the self-concept or any facet of it in other bilingual research.

2.15 Motivation for foreign language learning: Intrinsic and Extrinsic

Being successful in learning to read and write in a new language is seen to be connected to many factors such as motivation, determination as well as attitude toward the second language. However, learning a second language in a place that does not allow the learners to use it on a daily basis can be a real struggle in terms of practice and improvement. In Oman, where this study took place, second languages such as English are used in many contexts. These contexts are schools, shopping due to the multicultural nature of the country. Also, some middle to high socio-economic families use English with their international employers such as drivers or domestic helpers which provide the opportunity for the pupils to use the language.

Motivation is commonly regarded as one of the key factors that impacts the success in learning a foreign language. According to Dornyei (1998) motivation is considered as a determiner of human behaviour because it involves vitality and enthusiasm. According to Topalov, 2011 motivation is defined a main stimulus an individual may have to perform in a particular context. Motivation is a reason for people to start a certain task and to continue doing it. Other theories have also contributed to the understanding of academic motivation, and lately there is more attention focused on the motivation for learning a second or a foreign language. The most common theory that contributed to the literature is the self-determination theory (SDT) by Deci (1971).

This theory was not designed specifically for second language motivation, it was rather a more general psychological theory which asserted that intrinsic, internalised, identity and extrinsic motivational style development are derived from three basic psychological needs. These are the needs for i. autonomy (refers to actions in which the learner initiates or regulates her/himself), competence (refers to the feelings of curiosity, exploration of new activity or any other intellectual challenge) and finally iii relatedness (refers to the feeling of the learners who are seeking to be accepted by or be important to others) (La Guardia, 2009). People according to SDT are more likely to assign their energy to certain activities which derive from these three psychological needs. It eventually means that people are more motivated by other people, situations, and any other activities. Another feature of this theory is the central role of intrinsic and extrinsic motivation. The SDT intrinsic motivation is grounded in autonomy and competence in which a learner is learning according to the needs of satisfaction and enjoyment of the activity. This could also relate to the motivation for learning a new language because of the satisfaction the learner could get when new concepts are acquired (competence) or for the interest and enjoyment the learner could get from learning a new language. According to SDT extrinsic motivation involves activities that a learner does which are related to something important such as the fact that bilingualism is a benefit to any educated person in order to find a decent job. It is important to mention that Deci (1972) divided the extrinsic motivation into four sections. At the end of the extrinsic motivation scale there is an *externally regulated behaviour,* which means learners learn something in order to avoid punishment or even to acquire a reward. Moreover, the introjected regulation behaviour is considered to be in between the extrinsic and the intrinsic motivations because it's more internalised and the learners are not looking to avoid punishment but rather to avoid the feeling of shame or guilt or even to feel worthwhile. The identified regulation is also more internalised and autonomous because the

outcomes can be more important to the person's personal goals. Finally, the integrated regulation appears according to Guardia (2009) to be the most intrinsically motivated behaviour because it symbolises what is important to the individual's sense of worth. Nonetheless, many learners' behaviours or activities started originally as an extrinsic motivation, but it becomes internalised later and vice versa. An activity can start as an intrinsic interest and later become extrinsically motivated because learners sometimes change their intention to grasp others' attention or to obtain feedback for instance.

Many studies however, focused only on the intrinsic and extrinsic motivation for learning a foreign language. According to Noels et al. (2003), intrinsic motivation presumably leads to success, because this type of motivation arises from the person's internal desire to reach the goals and to get the enjoyment in performing well in second language learning. Thus drawing the connection between intrinsic motivation and learning a foreign language learning, was proven in a study by Pae, (2008) who found strong evidence between motivation and self-confidence to learn a foreign language as it connected indirectly with attainment. According to Noels, et al. (2000) there are three types of intrinsic motivation based on Self Determination theory (1985) which is also supported by the finding from an empirical study conducted by Vallerand (1997). These three types of intrinsic motivation are knowledge, accomplishment and stimulation. Knowledge can be defined as motivation for learning a second language, exploring new ideas and developing knowledge while accomplishment refers to the attempt to master a task or to achieve a goal (X.wu, 2003) Stimulation is related to motivation based on stimulation of performing the task, such as, fun or excitement or appreciation. In conclusion the motivational behaviour can be a continuum and the attention to learning can change throughout the activity itself. Noels, Clement, and Pelletier (2001) examined the intrinsic, extrinsic, and integrative motivation of French students in a summer course. The survey used with the students examined their perceptions of autonomy and competence, learning effort, determination, and reasons for learning a second language and their achievement in the course. The researchers analysed the connection between different types of motivation starting from the extrinsic to the intrinsic motivation and its subtypes. The variables they chose were students' perception of autonomy and English competence compared with their persistence in English studies (their intention to continue their studies), and motivation (the effort they exerted in studying language). The results showed that motivation, which included a lack of any, both extrinsic and intrinsic, goals for learning (2001, Noel) is representative of lack of effort in learning English. Identified regulation and intrinsic motivation

correlated with higher intensity and persistence in learning English. Both the Anglophone and non-English learners of English obtained high levels of identified and external regulation and low levels of motivation. Moreover, the French students of English reported that they were motivated extrinsically (due to internal or external pressures). The appearance of internal or external pressures did not estimate the amount of effort a student put into the learning process. The final results showed that the amount of effort is affected by the proximity of external punishment/reward, whereas intrinsic motivation correlates with higher levels of learning effort.

2.16 Significance of second language motivation

Research in the area of learning a second language has been conducted in many languages in countries such as the UK, USA, China and many others yet, according to my database search, which included PsycINFO, British Education Index, Australian Education Index and others, only two studies were found which cover recently the area of motivation to learn English as a second language in the Middle East. The topic of intrinsic and extrinsic motivation has attracted more attention in foreign language learning. Many scholars have focused on the significance of motivation in learning a second language. According to Oxford and Shearin (1994), research demonstrated that motivation has a great impact on how many times students employ learning strategies in the second language, and how well students communicate with native speakers, how much information and knowledge they obtain while learning a second language, how they achieve on curriculum-related tests, how well their general proficiency level grows in the second language and how their language proficiency develops after finishing studying the second language.

Since the work of Gardner and Lambert in 1972, language teachers and researchers have noticed the significant role motivation plays in learning a language. Gardner and Lambert are proposed two types of motivational learning known as instrumental motivation and integrative motivation. Learners who are integratively motivated want to learn the language because they want to get to know the people who speak that language while, Learners with an instrumental motivation want to learn a language because of a practical reason such as getting a salary bonus or getting into college. In a study carried out by Engin (2009) in order to find out the sort of motivational factors that the students require to learn a second language, the results displayed that there is a link between success and instrumental motivation, although the instrumental

motivation did not demonstrate its importance over the integrative motivation for learning a second language. This could be due to the fact that the instrumental motivation is a pragmatic approach while the integrative motivation relates more to the desire to achieve something important to a person. A similar study carried out by Gardner and MacIntyre, 1991 on the importance of learning a second language based on the integrative and instrumental motivation of learning French/English vocabulary, showed that both the integrative and instrumental motivation has a positive impact on the language proficiency level. In 2007, Liu conducted a study to find out if there is any link between motivation and language proficiency among bilingual Chinese-English students who learn English as a second language. This was conducted by using an adapted version of Gardner (1985) and Clement et al. (1994) survey. The results showed that the students had positive attitudes toward learning English, and that they have more instrumental motivation than integrative motivation in learning English. The student's attitudes and motivation were also positively correlated with their English proficiency.

Although according to much research, motivation is an important factor in learning, there is an inconsistency in the way motivation is seen by many researchers. Dörnyei, (1999) claimed that, despite the fact that motivation is seen as a key element in the process of learning, and that many educators use it as an explanation of success or failure, it is still not easy to define what motivation is and how this helps in the learning process. On this account, Dörnyei's (1994) identified a three level framework of second language motivation, those are language level, learner level and learning situation level. The language level indicates the general level and focuses mainly on the orientations and motivations aspects of the second language. Those aspects are for instance the culture and community of the studied language and the values and benefits that come with it. AT the second level comes the learner level, this focuses on the need or achievement and self- confidence of the learner. The third level is the learning situation level which consists of intrinsic and extrinsic motives and motivational conditions. This level is also divided into three areas: A course-specific motivational component, which consists of the syllabus, the teaching materials, the teaching method, and the learning tasks. The second area is the teachers-specific motivational component and refers to the motivational effect of the teacher's personality, teaching style and practice. The third area is the group-specific motivational component which refers to the group-cohesiveness, and reward system, and the classroom goal structure. According to Dörnyei, 2001, each individual varies in terms of the influence

they obtain from the learning experience as each individual has his own goal to achieve.

2.16 Dörnyei and Otto's (1998): Model of second language Motivation

Dörnyei and Otto's (1998) research represents one of the significant approaches in studying and researching second language motivation. Dörnyei and Otto developed a model of second language motivation which consisted of two dimensions; the action sequence and the motivational influences. The first dimension represents the original wishes, hopes and desires, which then convert into goals, then intentions, which later becomes action, in order to reach the accomplishment of the goals after the process is submitted to its final evaluation. The second dimension is the motivational influences which represent all the energy needed in terms of motivation which can change the behavioural process toward learning the second language (Dörnyei, 2000). The action sequence process is divided into three phases: pre-actional phase, actional phase and post-actional phase. The pre-actional phase refers to the period in which motivation needs to be generated. The motivational dimension is referred to as choice motivation because the generated motivation will lead to many goals which the individual will attempt to fulfil. The pre-actional phase also consists of three sub- phases, goal setting, intention formation and initiation of intention enactment. The goal setting consists of wishes, hopes, desires and opportunities. In this sub-phase the goal is the engine that stimulates the action and direct the act. Thus, goal does not initiate the action, because it first needs intention to reach the commitment.

According to Dörnyei (2000), differentiating between the goal and intention is rather important. This involves the differences between, the multiple ideas, wishes, hopes, desires, and long-term plans the individual encounter at some point and intentions of the individual’s actual resolutions. A significant step in the generation of the intention is the action plan which consists of important details. The action plan is formed by guidelines and a number of strategies that are followed and implemented and a time frame which refers to the timing of the start of actions. The period in which the generated motivation needs to be maintained and protected is called the actional phase. This motivational dimension is referred to as executive motivation. This phase contains three processes: subtask generation and implementation which means action initiation phase; the second one is the appraisal process which plays a significant role because it motivates the individual to evaluate the stimuli that comes from the environment. Lastly the action outcome and action control are considered as a crucial step in this phase. All these mechanisms refer to the processes that are used in order

to strengthen and protect learning-specific action. The post-actional phase refers to the learners' retrospective evaluation of how things went. The motivational dimension consists of motivational retrospection in which learners articulate about their past experiences in learning. This process, according to the author, is important because it reflects the way learners process their past experiences in order to determine the kind of activities and tasks they intend to carry out in the future.

2.17 Summary

As the area of specific learning difficulty is extremely broad, many theories have emerged in an attempt to tackle the challenging situations that pupils may face during their school years. In this chapter I attempted to review the historical background of the issue moving to the most recent identification of specific learning difficulties, along with shedding light on the study of specific learning difficulties in the Middle East and Oman in particular. Although it was necessary to go back in time and cover the area of learning difficulties from the early days, this has made it more obvious that the area of specific learning difficulties in the Arab world and the Middle East in particular has not been studied systematically over the years. As far as the research goes, the research field of learning difficulties in the Middle East is not yet fully formed, which means there is a gap in knowledge regarding the definition, the identification process as bilingualism and finally the field of special education. This situation has led to a great deal of confusion regarding the terms used and the identification of these particular literacy problems, and whether the pupils should be identified in either Arabic or both Arabic and English together. In my opinion the lack of studies in the realm of learning difficulties in the Arab world reflects the lack of proper assessment tools, in both the Arabic language and in the English as a second language. This situation made this current study methodologically and ethically challenging as well as theoretically problematic. On this account and due to the fact that I am unable to resolve the definitional issue of SpLD I will adapt both the IQ-discrepancy achievement model of identification and the attainment lower 10% model. I will also adopt a tighter and looser cut-off for both models as the cut-off on either model is also shown to be an issue in who is identified as having a literacy difficulty. The two models and strong and the weak version of them will be discussed in the methods chapter down below. The area of self-concept and motivation to learning a second language has been thoroughly studied in USA and Europe over the years, yet, there were also a lack of studies regarding the bilingual context in the Middle East which is why this study was conducted. Very few studies

have been conducted in the area of self-concept among monolingual and bilingual pupils with literacy difficulties in the Middle Eastern region, and the views of the pupils with SpLD themselves have not been investigated. Besides, none of the studies that I came across have used either mixed-methodologies or assessment tools in both Arabic and English in one single study. This study was carried out in order to fill in some gaps regarding the bilingual context of the Middle East and to answer the questions below which covered the two phases of this mixed methodologies study.

Chapter 3: Research Methodology

3.1 Introduction

The purpose of this chapter is to outline the methodological positions, the design, and the empirical procedures in this research. The overall research design embraced different methodological approaches using quantitative and qualitative data methods under the umbrella of "mixed-method" design (Teddlie & Tashakkori, 2003). On this account, this chapter discussed briefly the debate between the two most used world-views; positivism and interpretivism and the philosophical assumptions behind each tradition. The second part of this chapter is dedicated to the justification of the use of mixed-methodology design and the debate that surrounds it. After discussing the theoretical positions, there is an overview of the methods used in this study, along with the rationale employed in choosing them. To organise this chapter I divided it into two design phases. The first phase is the scientific style survey approach and the second phase is the exploratory cases study approach. All the details about the methods used including assessments and tests are set out in relation to the main and subsidiary research questions that each method aimed to answer. Finally the samples, the procedures and the ethical considerations were also discussed and the chapter closes with the conclusion to bring all the elements together.

3.2 The aims and design of the study

When I first started planning this study, I hypothesised that the pupils with SpLD who studied a foreign language along with their mother-tongue were more likely to have a negative general and academic self-concept in comparison to the pupils with SpLD who studied only in their first language. I developed this idea when I was working as a school counsellor where I was able to meet and interview many pupils with SpLD who seemed, according to my observation, to have negative perceptions about their academic attainment which I believed was why they lacked self-confidence. I decided to conduct this study in order to investigate the differences between the bilingual pupils with SpLD and monolingual pupils with SpLD in terms of the dimensions of self-concept.

Thus the main aim of this study was to examine the hierarchy of the self-concept of monolingual and bilingual pupils who have SpLD. Following Marsh's, 1978 structure, I started from the apex of the general self-concept and moved to a more

specific academic self-concept in both Arabic and English such as reading and writing, as well as the non-academic self-concept such as athletic and social life self-concept. The idea behind choosing to examine the self-concept for the monolingual and the bilingual pupils was first of all to compare all aspects of the self-concept between the monolingual and the bilingual. This also involved finding out whether the pupils' self-concept was the same from one language to another, for example, from the Arabic reading self-concept to the English reading self-concept. The third aim was to find out if the pupils generalised their self-concept from a specific self-concept to a more general one, for instance from the academic self-concept to the general self-concept. The last point investigated in this study was to find out the differences in motivation for learning English as a foreign language between bilingual pupils with specific literacy difficulties in comparison to those who exhibit typical literacy levels. There was also a question that I came up with during investigating the area of SpLD and bilingualism which is whether pupil can have specific difficulties in one language and not the other, in this study the example is between English and Arabic. I also questioned that there is a differences between the phonological awareness between English and Arabic among the bilingual pupils who had specific literacy difficulties.The aim of the second methodological phase of the study; a case study design; was to examine in depth the perspectives and experiences of the bilingual pupils who have SpLD in both English and Arabic or who have SpLD in one language only. I also wanted to find out if studying a second language had an impact on the self-concept of the bilingual pupils with SpLD which is why I compared the facets of self-concept of the monolingual pupils with the facets of the self-concept of the bilingual pupils who all had SpLD.

3.3 The theoretical positions

Planning and choosing a research methodology has never been easy for any researcher, especially those who are less interested in the philosophical position of the research, which is represented mainly but not exclusively by positivism and interpretivism, and were more interested in solving the research problem. These two traditions are sometimes known as "paradigms". *"A paradigm is a conceptual model of a person's worldview, complete with the assumptions that are associated with that view*" (Mertens, 2003, p.139). Despite the fact that I did not

support in my research study any of these traditions, bringing these two “warring paradigms” to my research helped first and foremost to show the influence that they had on other research up until today. Secondly, this also helped me to express my preference for a mixed methodology design over singular historical world-view designs. It was important to state that the debate between these world-views (positivism and interpretivism) started primarily from the questions asked about the nature of reality; the perspectives and purposes regarding doing the research; also known as the ontology and the epistemology, and the different types of data-collection methods known as quantitative and qualitative methods.

In short, the ontology that was believed by the positivism means that the world is external (Carson et al., 1988) and that there is a single objective reality to any research phenomena that are there to be discovered (Hudson and Ozanne, 1988). Positivism perceives knowledge as objective which means it is reproducible and is also independent of who produces it. This means that knowledge arises from an explicit systematic set of methods. In positivism researchers need to be independent of their own research hence, they use variables which are measurable and therefore quantitative methods such as questionnaires and other types of experiments. By embracing these quantitative methods they allow the data to be statistically analysed.

The interpretivist approach however has a different understanding of the knowledge and their basic notion is that the world is perceived to be socially constructed and that knowledge stems from the human experience, thus they rely mainly on the relationship or interaction between the researcher and the participant and they consider this a key element. The interpretivist researcher starts with a particular insight of the research context but believes that the knowledge is inadequate prior to an unpredictable or complex nature of the reality (Hudson and Ozanne, 1988). Hence the aim of the interpretivists is to obtain an understanding of the human behavior as oppose to generalise and anticipate causes and effects (Neuman, 2000; Hudson and Ozanne, 1988).constructivists use methods such as interviews in which the data can reflect the human experiences or interest.

According to these differences between the two traditions it was apparent that each one of them adopts a different ontological and epistemological way of perceiving the knowledge. These views led some researchers to believe that it was not acceptable to combine two contradictory epistemologies and ontologies

in one single study and thus they were incompatible. This debate resulted in what Smith and Heshusius, 1986 called later the “incompatibility thesis”. This thesis however, was not accepted by all researchers, which again opened the door later to the increased use of mixed or combined methodologies, sometimes called mixed methods (Bryman, 2006). Mixed methods were commonly used among the researchers who had complex social research questions that could not be answered straightforwardly by methods of a single tradition (Ercikan & Roth, 2006).

Apparently this movement from the single tradition to the use of two methodologies brought a great deal of terms to the realm, some of these are: multi-method, integrated, hybrid, combined, and mixed-methodology research, to name just a few (Creswell & Plano Clark, 2007). This complexity has been somewhat reduced by Creswell (2015) who divided the mixed-method design into three different types, each with its own name, a description, and a way of approaching it. The first is the convergent design in which the researcher merges quantitative data with qualitative data to deliver a comprehensive analysis of the research question. According to this design the researcher collects both data almost at the same time and then combine the data in the interpretation of the final results. The second one is the explanatory sequential design, in this design the researcher collects the quantitative data first, analyses the results and according to the findings he/she build on them in order to explain them in more depth within the qualitative phase. The last is the exploratory sequential design (Creswell, 1998) which is opposite to the explanatory sequential design, as the researcher starts with conducting the qualitative data and builds on the analysed results to conduct the second quantitative phase and helps identify the appropriate instruments to be used. In this study I adopted the explanatory sequential design but which differed in terms of data collection. First of all I assessed the pupils using LASS (8-11) test, chose the targeted pupils who fit the study, then I collected the quantitative data (questionnaire, survey), analysed the data of both the test and the questionnaire, chose another group for the case study and then interviewed the pupils and analysed the data.

3.4 Methodological design

3.4.1 Back ground of the mixed methodology design

This section looks briefly at some of the background to mixed methodology design, in order to address some of its advantages and disadvantages, and to justify its use in my own study. Mixed methodology design has been increasingly used in different areas of inquiry such as health science, nursing, psychology, education, sociology, and many others (Tashakkori and Teddlie, 1998). Originally, the concept of mixing different methods emerged in 1959, when Campbell and Fiske embarked on a multiple-method design to study the validity of psychological traits. After developing this design, researchers started to combine methods imported from the scientific style approach with methods imported from the exploratory/ interpretive cases study approach (Sieber, 1973). According to Niglas, 2000 there were three positions to describe the challenges that encompassed the mixed methods design. The first was the “purist”, who was confined to the incompatibility thesis and thus considered only one tradition; the second position was the “situationalist” who was willing to use different traditions but not in one single study; lastly was the “pragmatist” who were open to mix methodologies from different traditions in one study as they believed that the “paradigm” and the methodology were separated from each other and hence, they refused any cut-off divisions between “paradigms” (Niglas, 2001). Another common use of the mixed methods is the triangulation, which was mainly explored by Denzin, 1978. The triangulation referred to the combination of findings that were acquired by various methods or the same method at different times yet, the term triangulation was over-used (Niglas, 2000) and also not straightforward to apply even to the methods that are from the same tradition (Hodkinson & Macleod, 2010).

In this section I will state the advantages of using the mixed methodology design and then present what I perceive to be the only disadvantage. The reason many researchers including me have chosen to use this design is because it was believed to provide the researcher with many options, choices, and approaches to data collection and data analysis, allowing the research question to be addressed in various ways. It also provides a helpful way to communicate meaning and knowledge (Johnson & Onwuegbuzie, 2004). The idea behind mixing methods is that researchers can use all the characteristics from two designs in one study. This allows the researcher to combine features of the quantitative method; such as testing the theory, explanation and prediction of the

results, scientific methods for data collection and finally analysing the data with statistical tools; with other characteristics of the qualitative design such as the discovery/exploration of a theory. The most common disadvantage of using mixed methodology is that it expands the researcher's workload, as the researcher has to collect data from various resources to answer the same question or any other subsidiary questions that are key to the study.

In my study the initial aim of using mixed methodologies was not to triangulate findings, it is more to develop a mosaic of knowledge around questions that are individuals but very related (Hammersley, 2001) as for the relationship between specific literacy difficulties and self-concept, motivation to foreign language learning in one hand and the questions about individual that involve exploring in their attainments, perspectives and dispositions who have SpLD in both languages in another hand. Although mixed methods research sounds like a straightforward design, it is more complex than it appears, and many researchers are confused by the way the data from both quantitative and qualitative designs are integrated, and by how words and texts can be reconciled with numerical data. In my study, I found that embracing a single design was not sufficient. Given that this is a subject not yet thoroughly studied, I found that integrating aspects of both quantitative and qualitative methods was necessary to enhance my understanding of this area of research. Besides, I have no philosophical opposition to combining two different methods rather than concentrating on the philosophical orientation of the research design, my aim was to answer the research question.

3.4.2 General view of the methods, the choice and the purpose

I used two main methods in this study in an attempt to answer the research questions and to prove that mixing methods in one study can enhance the overall understanding of the area of research. The first method used was the scientific based questionnaire followed in the second phase by the interviews. A language learning motivation scale was also used to target one of the subsidiary research questions. Another tool was used which was also very crucial in this study is the assessment tests in both languages Arabic and English. The choice of the methods used embraced the fact that this study aimed to focus on each individual's learning and social relationships along with the interaction with their

environment and the reactions they have toward it. Table 3) below demonstrated the order of each method used in the study including the assessment tests.

Table 3: Design process of the research

	Timing	methods	Integration	Data analysis process
Phase one	Stage one	Assessment used to identify the pupils with SpLD (Bilingual and monolingual)	Quantitative data collection	Categorise each group according to different criteria of SpLD (details of the criteria are in table-9-10-11-12) below
	Stage two	Scientific based-Survey + E/I Questionnaire	Quantitative data collection	Quantitative data analysis Using SPSS
Phase two	Stage one	Case study design Interview using semi structured interviews	mixed methods	qualitative data analysis
	Stage two		Integrating phase 1 and 2 findings	

The self-concept questionnaire was the first quantitative method used which was conducted within the four groups of pupils who were SpLD and typical (details of group categorising will be outlined in table 4 below). This aimed to measure the dimensions of the self-concept among the groups for comparison later. The language learning motivation scale intrinsic and extrinsic was also used among the bilingual pupils with SpLD and aimed to measure their motivation for learning the English language while having to deal with their literacy difficulties. The interviews were qualitative methods which were carried out among a group of 6 pupils who had specific literacy difficulties in one or both Arabic and English languages. These interviews were conducted after having the pupil's results from the assessment tools in Arabic and English (LASS 8-11) and also from the self-concept questionnaire. Other interviews took place among the teachers of the selected cases mentioned above which aimed to see if the pupils perceive themselves differently from the way their teacher's did in terms of their literacy, social life and other areas of learning. The assessment tests were used to identify the pupils' literacy difficulties and organise them into groups where they belong according to the nature of their SpLD. Furthermore, these tests were conducted to answer two subsidiary questions regarding the existence of SpLD in one or both languages together and also to find out if there are any differences in terms

of the phonology of the two languages.

To sum up, the decision made to choose these methods came from the fact that these methods are the best to address my research questions although it was very difficult to choose methods that answer these questions completely. The other decision made - to choose the same assessment tools in both languages - came from the hypothesis made on whether there were any differences in terms of phonology between the Arabic and the English language. In summary the self-concept questionnaire was chosen to address the main research question while the foreign language motivation scale was chosen to address one of the subsidiary research questions, and finally the interviews were chosen to target the differences in opinions between the pupils with SpLD and their teachers which targeted the questions on phase 2 of the study.

Table 4: Description of the groups who took part in the research

group	Type of pupils	Type of literacy	Type of school	Teaching facilities
A	Monolingual different single gender schools	SpLD	Public	Limited facilities in reading and writing activities in Arabic only
B	Bilingual different schools mixed gender	SpLD	Private	Different in each school. Yet, the facilities are only in Arabic
C	Monolingual different single gender schools	Typical literacy level	Public	No special facilities
D	Bilingual different schools mixed gender	Typical literacy level	Private	No special facilities
E	Bilingual different schools mixed gender	SpLD	Private	Potential group of pupils who have SpLD in one language only

3.5 Phase 1 of the study: Research question targeted the quantitative design

3.5.1 Primary research question

What differences are there between bilingual pupils with SpLD and monolingual pupils with SpLD in terms of the dimensions of self-concept?

a. General self-concept

b. Arabic Literacy (reading, writing, spelling) self-concept.

c. English Literacy (reading, writing, spelling) self-concept.

d. Academic self-concept (maths and school subjects)

e. Non-academic (social and athletic) self-concept.

3.5.2 Subsidiary research questions

a. Are there differences between monolingual pupils with SpLD and monolingual pupils with typical literacy levels in terms of the dimensions of self-concept? (a), (b), (c) & (d) [mentioned in details in Q1]?

b. Are there differences between bilingual pupils with typical literacy levels and monolingual pupils with typical literacy levels in terms of the dimensions of self-concept (a), (b), (c) & (d)? [Mentioned in details in Q1]?

c. Are there differences between bilingual pupils with SpLD and bilingual pupils with typical literacy levels in terms of Intrinsic and extrinsic foreign language learning motivation?

d. Are there any differences in terms of phonological awareness between English and Arabic among the bilingual pupils with SpLD?

The tables below showed in more detail the comparisons made between each two group-set according to the research question, the arrows represented the comparison made between groups.

Table 5: Main research question: The self- concept

Participants	Typical literacy level pupils	Specific literacy difficulties pupils

Monolingual	↕ ⟷	⟷ ↕
Bilingual	↕ ⟷	⟷ ↕

Table (6): Subsidiary research (4): Motivation to learning foreign language

Bilingual pupils	Specific literacy difficulties pupils	Typical literacy level pupils
	⟷	⟷

3.6 Methods and tools: Survey/ Questionnaire

The main purpose of a survey is to describe the features of a sample (Baxter & Babbie, 2004; Fraenkel & Wallen, 2006). Surveys mostly fall into one of two major classifications (Fraenkel & Wallen, 2006). The first one which I embraced in my research study is called the cross-sectional. A cross-sectional survey gathers information from a pre-chosen sample and is conducted at one time during the study (Dillman, 2000; Groves, Cialdini, & Couper, 1992). These sorts of surveys are essential for collecting information to be used for a certain study as an example. Surveys are also quite straightforward and are carried out especially for studies that are investigating perspectives, opinions, interests and beliefs (Robson, 1993). The survey used in this study is also considered to be analytic, which means it is not very much aligned toward being representative but rather more oriented toward finding interrelations and explanations (Oppenheim, 1992). The current research study survey was a combination of Marsh's 1988 self-description questionnaire (SDQ) and Marsh's, 1988 academic self-description questionnaire (ASDQ-1). The reason for choosing these two surveys together in my study is that I aimed to cover all areas from general self-concept to literacy and non-academics which were not all covered together in one of Marsh's questionnaire. Due to this I combined items from each one to cover all the facets of the self-concept which was represented by the hierarchical structure initially used by Shavelson, Hubner, and Stanton (1976) (See Appendix 7 for more information about the SDQ used in this study.

The self-description questionnaire (SDQ) measures the general and the academic self-concept such as reading, Mathematics, and general self-concept. Each facet was measured on a 10-item scale except for peer relationships and

athletics as they were both measured on a 9-item scale. The items that I included from academic self-description questionnaire (ASDQ-1) measured the facets of the academic self-concept such as spelling and hand writing as described by Marsh/ Shavelson, 1985. Each facet of the academic self- description questionnaire (ASDQ-1) was measured on a 6-item scale. All the scales in both questionnaires were measured on a 6-point Likert scale. Table (7) below outlined the combinations of the two questionnaires as described above.

Table 6: description the two questionnaires SDQ and ASDQ1

Area of identifying	Sub-areas	Marsh scale	example of the test
General self-concept	self-concept	SDQ	Overall, I am no good
Academic self- concept	Math	SDQ	I hate mathematics
Verbal academic self-concept	English reading	SDQ	I get good marks in reading
Verbal academic self-concept	English spelling	ASDQ-1	I am hopeless when it comes to spelling classes
Verbal academic self-concept	English handwriting	ASDQ-1	Work in handwriting classes is easy for me
Foreign language self-concept	Arabic reading	SDQ	I learn things quickly in reading
Foreign language self-concept	Arabic spelling	ASDQ-1	I get good marks in spelling classes
Foreign language self-concept	Arabic handwriting	ASDQ-1	Compared to others my age I am good at handwriting classes
General school self-concept	School self-concept	SDQ	I have always done well in most school subjects
Non-academic self-concept	Athletic	SDQ	I like to run and play hard
Social school-self-concept	Peer relationship	SDQ	Most kids have more friends than I do

3.7 Foreign Language Learning Orientation Scale/ intrinsic – extrinsic motivation: description and rationale

The content of the Foreign Language learning orientation scale/ intrinsic – extrinsic motivation was initially derived from the self-determination theory (SDT) by Ryan and Deci, 1985; see also Deci, Vallerand, Pelletier, & Ryan ,1991) for a review (This theory was discussed in details in the literature review chapter above). The questions developed from the Language Learning Orientations

Scale – Intrinsic Motivation, Extrinsic Motivation, and Amotivation Subscales (LLOS – IEA) by Noels, Pelletier, Clément, and Vallerand (2000). The revisions aimed to make the statements suitable for the samples of children involved in the study, taking into consideration their literacy difficulties. The scale was divided into two sub-sections - the intrinsic motivation and the extrinsic motivation, and the pupils were also asked to rate their level of agreement with a statement on a 5-point Likert scale (1 is false and 5 is true) exactly as used in the self-concept questionnaire to make the process easy for the pupils. The scale contained a total of 12 items, 6 for each sub-scale, and was designed to investigate the variables below.

3.7.1. Intrinsic sub-scale

a. Intrinsic motivation/ accomplishment: this measure consisted of intrinsic accomplishment items e.g., for the satisfaction I feel when I "accomplish" difficult exercises in the second language (also see Q2 and Q5 in the appendix 8 for a full read of the questions).
b. Intrinsic motivation/ knowledge: this measure consisted of intrinsic knowledge items e.g., because I enjoy "acquiring knowledge" about the second language community and their way of life (also see the appendix 8 for Q6)
c. Intrinsic motivation/ stimulation: this measure consisted of Intrinsic stimulation items e.g., for the satisfaction I get when I speak a second language.

3.7.2 Extrinsic sub-scale

The second sub-scale consisted of 6 external motivation items and was designed to investigate the variables below.

a. Extrinsic motivation: external regulation: this measure consisted of external regulation items e.g., because I have the impression that my parents expect me to learn English (also see Q1 and Q2 in the appendix 8).
b. Extrinsic motivation: introjected regulation: this measure consisted of introjected regulation items e.g., because I would feel guilty if I couldn't interpret to my parents when they need it (also see Q4 and Q6 in the appendix 8).

3.8 Reliability and validity

The reliability and the validity of the instruments are extremely significant in any quantitative research. Since it enables a researcher to reduce the number of errors that might emerge from measurement issues in the research study. The terms reliability and validity are related but also distinct. Reliability refers to the consistency and stability of the results; if the tests were carried out again (retest reliability) with the same participants (Ward & Street, 2010), and the same scores are recorded. The internal reliability is also important, referring to whether the statements in a scale are inter-related and measure the same area, such as foreign language learning orientation. Yin (2003) stated that validity can also be analysed in three types. The first one is the construct validity and its role is to establish the correct operational measures for the studied concept. The second is the internal validity which is concerned with the relationship between the cause and the effect. The last is the external validity which is related to the generalisability of the findings to a broader population. Although the possibility to completely prevent threats to reliability and validity is not an easy task, nevertheless any researcher is required to identify the threats and try to find a way to reduce them. The reliability and validity of the self-description questionnaire (SDQ), Marsh et al., 1988 used in this study are outlined in the next section.

3.9 Validation of the self-concept questionnaire

According to the manual of the self-description questionnaire (SDQ), Marsh et al., 1988 tested the construct validity of the SDQ by correlating the SDQ to variables such as gender, age, academic achievement, socioeconomic status, and also to a different self-concept instrument in order to reinforce the validity of the SDQ questionnaire. In one study to test the construct validity of the SDQ, Marsh et al., 1988 found that the reading self-concept scores were significantly correlated with reading achievement scores (median r = 0.43). Besides, they found a significant correlation between the scores of the mathematics self-concept and the scores of the mathematics achievement (median r = 0.40). Hence there was also a significant correlation between academic achievement in reading and mathematics with academic self-concept in the same area, yet it was less correlated with other areas of academic self-concept such as the correlations

between reading achievement and mathematics self-concepts (median r =0.03). Also these academic self-concepts were not significantly correlated with non-academic areas of self-concept. Despite the fact that there were no or low correlations in some areas as mentioned above, yet the majority of the results showed a high correlation between the self-concept and the achievement. Thus, the SDQ provided the best representation of the questionnaire in terms of validity and the use of the instrument for measuring the self-concept.

3.10 Reliability of the self-concept questionnaire

The reliability of this questionnaire (SDQ) has been examined by many researchers in the United States, Australia, New Zealand, and the United Kingdom (Harter, 1989, 1996; Hoge & Renzulli, 1993; Marsh & Hau, 2004; Marsh & Shavelson, 1985; Shavelson, Hubner, & Stanton, 1976; Skaalvik & Hagtvet, 1990; Skaalvik & Valas, 1999; Spinath et al., 2006). The approximate internal consistency-reliability outlined in the manual for the self-description questionnaire were all in the 0.80 to 0.90 Cronbach alpha range regarding the different scales and the total scores. The coefficient alphas score for the eight individual scales across all responses varied from 0.80 to 0.92 (median= 0.89). The alpha coefficients for the total non-academic score was between 0.91, while the general -self scored 0.94. All results shown were according to the self-description manual. Other evidence for the internal consistency-reliability was shown in two studies conducted by Marsh, Smith, Barnes, and Butler, 1983 when they tested and retested the data among 528 pupils from grade five and six, and 143 pupils from grade four. The interval between the two tests dates was six months. The results showed that the internal consistency of responses were higher from one time to another for the individual SDQ scales (mean r = 0.87) and for the total scores (mean r = 0.92). This also included another examination by Marsh et al., 1983 who also found that the reliability of the different scores for both the individual scales (mean coefficient alpha = 0.74) and the total scores (mean coefficient alpha = 0.87) was also high. Overall these studies supported the SDQ is a reliable test to be used by researcher.

3.11 Identification of pupils with SpLD: assessment tools: rationale

The first stage of phase one of this study assesses the bilingual (Arabic- English) and the monolingual (Arabic) pupils using LASS 8-11 both the Arabic and the English version. The pupils who were nominated to take part in the study were at risk of having specific literacy difficulties according to their teachers (participant's sampling methods were discussed below). The identification process was a crucial stage for this study as the sample selection depended on the assessments used to distinguish between pupils with typical literacy attainments and those with specific literacy difficulties (SpLD).

The reason behind choosing LASS (8-11) is that it included literacy tests along with phonology, non-verbal visual and auditory memory tests as well as analogical reasoning. These two assessments demonstrated that they can secure a reasonable estimate of the pupil's overall non-verbal intelligence / cognitive ability, as well as helping to assess the pupil's reading and spelling. They can also demonstrate the discrepancies between the pupil's literacy attainment and the literacy anticipation, based on the result of the intelligence test. Another reason was that these tests are computer-based which I thought would be more engaging than conventional tests. Horne (2002) asserted that 54 of 75 pupils (72%) preferred the computer-based tests whilst only 17 (23%) preferred conventional tests in a study regarding the English version of LASS (8-11). Another important reason was that this is the only measurement I have found in both Arabic and English versions. The two tests were developed by two different companies; Lucid Research Ltd developed the English version while the Kuwait Dyslexia association developed the Arabic Version of the test (see details about the two companies from their website listed in the references).

3.12 Identification methods: SpLD models

The first model I chose to identify the pupils who are at risk of specific literacy difficulties (SpLD) is the discrepancy model. In the discrepancy definition SpLD is identified as a gap between measures of intelligence and literacy achievement (Reason & Frederickson, 1996). In compliance to this model; I have set two versions of this discrepancy model; one is strong and the other is weak. The reason for these versions is to take account of

different cut-offs that might be used in identifying a pupil as having a SpLD. The stronger version had more criteria to meet than the weaker version, though in both versions the pupils who had SpLD had a discrepancy between reasoning and attainment where reasoning is (≥ 85) and attainment is the lowest (10%). Those scores are also combined with significant differences on at least (2) of (4) scales of the memory and phonological tests (see table 8 for full description of the strong and the weak version of the discrepancy model). The same criteria were used to identify the pupils within the Arabic test, however the segmentation test was excluded from the study as I mentioned earlier. All the criteria of the four versions for the English and the Arabic assessment are mentioned in the table below.

3.12.1 Identification model 1: discrepancy model

The first model I chose to identify the pupils who are at risk of specific literacy difficulties (SpLD) is the discrepancy model. In the discrepancy definition SpLD is identified as a gap between measures of intelligence and literacy achievement (Reason & Frederickson, 1996). In compliance to this model; I have set two of two versions of this discrepancy model; one is strong and the other is weak. The reason for these versions is to take account of different cut-offs that might be used in identifying a pupil as having a SpLD. The stronger version had more criteria to meet than the weaker version, though in both versions the pupils who had SpLD had a discrepancy between reasoning and attainment where reasoning is (≥ 85) and attainment is the lowest (10%). Those scores are also combined with significant differences on at least (2) of (4) scales of the memory and phonological tests (see table 8 for full description of the strong and the weak version of the discrepancy model). The same criteria were used to identify the pupils within the Arabic test, however the segmentation test was excluded from the study as I mentioned earlier. All the criteria of the four versions for the English and the Arabic assessment are mentioned in the table below.

Table 8: Description of the strong and weak version of the Arabic discrepancy model

ARABIC - DISCREPANCY BETWEEN REASONING AND ATTAINMENT		
	LITERACY	**MEMORY & PHONOLOGICAL LEVELS**
STRONG VERSION	Discrepancy between reasoning and attainment where Reasoning is ≥ 85 and attainment is the lowest 10% of Sentence reading + Spelling	Significant Difference on at least 2 of 3 scales: 1. Visual memory 2. Auditory memory 3. Non-word
WEAK VERSION	Discrepancy between reasoning and attainment where Reasoning is ≥ 85 and attainment is the lowest 10% of Sentence reading OR Spelling	Significant Difference on at least 2 of 3 scales: 1. Visual memory 2. Auditory memory 3. Non-word

Table 9: Description of the strong and weak version of the English discrepancy model

ENGLISH - DISCREPANCY BETWEEN REASONING AND ATTAINMENT		
	LITERACY	**MEMORY & PHONOLOGICAL LEVELS**
STRONG VERSION	Discrepancy between reasoning and attainment where reasoning is ≥ 85 and attainment is the lowest 10% of Single word reading or Sentence reading) + Spelling	Significant Difference on at least 2 of 4 scales 1. Visual memory 2. Auditory memory 3. Non-word 4.Segmentation
WEAK VERSION	Discrepancy between reasoning and attainment where reasoning is ≥ 85 and attainment is the lowest 10% of Single word reading (OR) Spelling (OR) Sentence reading	Significant Differences on at least 1 of 4 scales: 1.Visual memory 2. Auditory memory 3. Non-word 4. Segmentation

3.12.2 Identification model 2: attainment lowest 10%model

The attainment model identifies SpLD as a persistently low literacy attainment despite adequate teaching. It initially affects the accuracy and the fluency of word reading and spelling with difficulties in phonological awareness, verbal memory and verbal processing speed (Rose, 2009). With this in mind, I created two versions of this model, one of which is a weak, while the second is strong version. The model suggested a significantly low (10%) literacy score in reading and spelling along with a significant difference on at least (2) of (4) scales of phonology and memory tests. This model in its strong and weak version was used also to identify pupils in Arabic language.

Table 10: description of the strong and weak version of the English attainment lowest 10% model

ENGLISH - ATTAINMENT LOWEST 10%		
	LITERACY	**MEMORY & PHONOLOGICAL LEVELS**
STRONG VERSION	Significant low literacy: lowest 10% scores in: Single word reading or Sentence reading) AND Spelling	Significant Difference on at least 2 of 4 scales: 1. Visual memory 2. Auditory memory 3. Non-word 4. Segmentation
WEAK VERSION	Significant Differences on the lowest 10% score of: Single word reading (OR) Spelling (OR) Sentence reading	Significant Difference on at least 1 of 4 scales: 1. Visual memory 2. Auditory memory 3. Non-word 4.Segmentation

Table 11: description of the strong and weak version of the Arabic attainment lowest 10% model

ARABIC - ATTAINMENT LOWEST 10%		
	LITERACY	**MEMORY & PHONOLOGICAL LEVELS**
STRONG VERSION	Significant Difference on the lowest 10% score of Sentence reading + Spelling	Significant Difference on at least 2 of 3 scales: 1. Visual memory 2. Auditory memory 3. Non-word
WEAK VERSION	Significant Difference on the lowest 10% score of Sentence reading OR Spelling	Significant Difference on at least 2 of 3 scales: 1. Visual memory 2. Auditory memory 3. Non-word

3.13 The rationale for fourfold identification of SpLD

When I first started preparing for the data collection, I chose the discrepancy model of identification since it has been very commonly used in the Middle East. When I started working with the monolingual Arabic pupils who were based in the state schools in Oman, I was utterly surprised by their low average scores in the analogical reasoning test which was a key score in the discrepancy model. Despite that, I continued the process of considering the achievement test and I started with the Arabic single word reading, this time most of the pupils had a very surprising high score of around 99%. From then on I was rather confused as the discrepancy between the reasoning and the attainment score does not meet the criteria that I set where the reasoning should be (≥ 85) and attainment is the lowest (10%). I then carried out the administration of other tests and continued with the Arabic sentence reading, but the score was not as low as I was expecting from a pupil who was nominated as having specific literacy difficulties. As I wanted to know what caused these results, I carried out administering all of the sub tests, which included visual memory, auditory memory, spelling and lastly the Arabic non-word. This was rather time consuming but it was well worth the effort since this gave a good picture of the pupils who were nominated to take part in this study. After calculating the scores of at least 30 pupils in the first run, I came to the conclusion that according to the discrepancy-attainment model no one had specific literacy difficulties (SpLD) in the Arabic language (See table 16 for more details).

The data I collected first were from different monolingual state schools of single gender either male or female. After that I moved to assess the bilingual Arabic – English pupils who studied at private schools. The results in the analogical reasoning varied from one pupil to another but again the literacy scores especially in single word reading was still very high. When I assessed their English literacy, things had changed dramatically with very low scores in the single word reading and most scored less than 10% in the sentence reading test. After that I made the decision of excluding the Arabic single word reading for its very high score, and the English sentence reading for its very low score. The second decision I made; since it was difficult to get pupils who have specific literacy difficulties in Arabic despite assessing more than 50 pupils; is to bring in another model of identification which happened to be the attainment lowest 10% model of identification. Despite including the attainment lowest 10% model, neither the monolingual nor the bilingual pupils showed SpLD in Arabic. The only option I was left with was making two versions for each model, one weak and the other strong. The results showed that the number among the monolingual pupils had increased slightly from no SpLD among the

monolingual pupils in the strong version to 11 in the weak version and from 5 bilingual pupils in the strong version and 19 in the weak version. These changes in results also showed in the English tests and the number increased dramatically from the strong to the weak version (see table 16 for more details). Due to the fact that the numbers of the pupils from one model of identification discrepancy- attainment for instance; was not sufficient to conduct this study, I have used data from both models of identification and used data from the fourfold versions. According to the results obtained from this study, I found that it is very crucial for the researchers and literacy assessors to consider more than one model of identification especially that I found different results when using different methods and when considering different versions of each model.

3.14 LASS (8-11) the English and the Arabic version

The assessments tools used in this stage were first the English version of LASS (8-11), which was used to identify the bilingual (Arabic-English) pupils. The test consisted of 3 attainment tests (single word reading, sentence reading and spelling), 1 ability test (reasoning) and 4 diagnostic tests (auditory memory, visual memory, phonic skills and phonological processing) (see table 5 below for details about each sub- test).

The second test I administered to assess the bilingual and the monolingual pupils in the Arabic language is the Arabic version of LASS (8-11) (see the website mentioned in the references). This test consisted of the same sub-test as the English version as described in the English section above but in the Arabic language (table 12 below also applied to the Arabic version). Since the reasoning test and the memory tests are non- verbal I used them only from one version of the test which happened to be the English one as it was technically more reliable. The only sub-test I did not conduct in Arabic was the segmentation test as it had technical issues which impeded me from using it. Unfortunately, I was unable to obtain another copy of the test as this was a trial copy of the assessment provided by “Kuwait Dyslexia Association”. To date (of writing this chapter) this test has not yet been released.

Table 12: Description of LASS (8-11) sub-tests (English and Arabic version)

Area of measurement	Sub-test	Category	Description
Non-verbal reasoning ability	Analogical reasoning	Ability	Non-verbal intelligence — analogical reasoning where the correct item from a choice of six alternatives has to be selected in order to complete a spatial matrix.
Literacy	English Sentence reading	Attainment	Close reading — completing sentences by identifying the missing word from a choice of five alternatives. No spoken assistance is given.
Literacy	English Single word reading	Attainment	Reading individual words out of context - identifying from a choice of five alternatives the printed word that corresponds to a spoken word.
Literacy	English spelling	Attainment	Spelling individual words that are spoken by the computer.
working memory ability	Non-verbal Visual memory	Diagnostic	Auditory sequential memory (digit span) -recall of between two and nine digits in correct (forwards) sequential order.
working memory ability	Non-verbal Auditory memory	Diagnostic	Visual memory - immediate recall of objects and their spatial positions, beginning with two items and progressing to seven items.
Phonological awareness	Non-word reading	Diagnostic	Reading individual non-words - a pure measure of phonic decoding skills. For each non-word there is a choice from four spoken alternatives.
Phonological awareness	Syllable Segmenta-tion	Diagnostic	Phonological processing ability - segmentation and deletion of syllables and phonemes in real words. For each item there is a choice from four spoken alternatives.

3.15 Standardisation of the English version of (LASS 8-11)

The eight tests in LASS 8-11 (English version) have been standardised in order to find out where each child falls in respect of the population norms. The standardisation sample for LASS 8-11 in total was 1107 pupils in 11 different schools in various parts of the UK. LASS was first designed as LASS 11-15 (Horne, Singleton and Thomas), then in 2001 as LASS secondary. LASS 8-11 is modelled on LASS 11-15 but with items suitable for the 8-11 age range. The standardisation of this test was appropriate to this study in terms of age and gender although it was not designed to test the bilingual pupils. But there was evidence that LASS 8-11 is better than any conventional tests because of its visual format (see LASS 8-11 teacher's manual).

3.16 Validation of the English version of LASS (8-11): Concurrent validity

The validation of any educational or psychological test requires a comparison with another equivalent and established test. As most tests which aim to assess learning difficulties are conventional (oral or paper tests) it was not easy to compare LASS 8-11 computer-based tests with another conventional test. The validation study across LASS 8-11 covered 100 pupils aged between 8 and 11. The aim was to compare a range of LASS sub-tests with the NFER Sentence Completion Test of reading comprehension. All sub-tests showed a significant correlation with the highest correlation found for sentence reading (see table 6 below). Lucid has another computer-based measure that is very similar to LASS 8-11 called LASS 11-15. The latter test was used among 75 pupils with an age range of 11 years 6 months to 15 years 11 months (mean age 13 years 6 months; standard deviation 17.0 months) (Horne, 2002). The results showed a high correlation coefficient for the literacy measures between LASS 11-15 tests and the other measures such as the British spelling test Series 3. However, the comparison between the cognitive measures showed a low correlation coefficient (See table 7 below for more details). According to LASS (8-11)'s manual; LASS 11-15 was used as a replacement for LASS 8-11 to obtain the validity of the test. However, LASS 11-15 targeted different age group from LASS 8-11 which raises a question about whether relying on LASS 11-15 as opposed to LASS 8-11 is justified. In general LASS 8-11 is based upon the evaluations of LASS 11-15 which cannot be valid in terms of the age range between the two groups of participants.

3.17 Predictive validity

The other method that Lucid used to validate the LASS 8-11 was predictive validity. Horne, 2002 conducted a research study using LASS 11-15 with a group of 176 pupils with a mean age of 13 years 7 months. The sample group was divided into separate groups, (30 identified as having Specific literacy difficulties, 17 various (SEN) of different disabilities, 129 typical literacy level). The results indicated that the specific literacy difficulties group was significantly lower than the typical literacy level group on five of the seven LASS 11-15 sub-tests (see table 5 below for the name of the tests). There were also no significant differences

between the SpLD and the typical literacy level group on reasoning or visual memory tests. On the other hand, the SEN group was significantly lower than the typical literacy level group on all seven of the LASS sub-tests. The same results were found when the groups were tested using various conventional tests such as the Wechsler memory scales (WMS-III) (see table 6 below for details of the tests). Embracing all the results from this study, LASS 11-15 managed to identify 79% of the SpLD pupils in comparison to 63% for the conventional tests and only 59% when using phonological measures on their own (see table 13 below). These results were interpreted to give LASS (11-15) convincing predictive validity (Horne, Singleton and Thomas, 1999).

Table 13: Correlation coefficients obtained between LASS 11-15 tests and equivalent or similar conventional tests (n=75).

LASS 11-15 test	Comparison test	Correlation coefficient (r)*
Sentence reading	NFER sentence completion Test	0.75
Spelling	British spelling test Series 3	0.88
Reasoning	Matrix analogies test	0.52
Cave (Visual memory)	Wechsler memory scales (WMS-III) spatial span (total score)	0.37
Mobile(Auditory memory)	Wechsler memory scales (WMS-III) digit Span (total score)	0.55
Non-words(Non-word reading)	Phonological assessment battery (PhAB) Non-word reading	0.43
Segments(Syllable segmentation)	Phonological assessment battery (PhAB) spoonerisms	0.45

*All correlations except Cave are significant at $p<0.001$ or better; the correlation for Cave was significant at the $p<0.01$ level.

3.18 Reliability of the English version of LASS (8-11)

Once more the reliability of LASS 8-11 was considered from the reliability of LASS 11-15, which again raised the same question about the age difference between the two tests and whether this transfer is justified. The test - retest reliability was examined by Horne, 2002 by taking a random sample of 101 pupils, males and females (mean age 13 years 8 months; standard deviation 16.5 months) and who represented a wide variety of socioeconomic backgrounds in England and Scotland. The students were administered the LASS 11-15 on all sub-tests except the “Single Word Reading Test”. After a period of four weeks the students were retested again. The results showed a significant test-retest correlation across all sub-tests. Unsurprisingly, the literacy tests were found to have the

higher correlation in comparison with the cognitive tests (Horne, 2002). Again this reliability on the LASS 11-55 raises a question on the validity of the age range between the two tests. The table below outlines the correlation coefficients for LASS (11-15).

Table 14: Test-retest correlation coefficients for LASS 11-15 tests over a four-week period (n=101).

LASS 11 – 15	Correlation coefficient (r)*
Sentence reading	0.85
Spelling	0.93
Reasoning	0.51
Cave (Visual memory)	0.53
Mobile (Auditory memory)	0.58
Non-words (Non-word reading)	0.77
Segments (Syllable segmentation)	0.74

3.19 Standardisation, Validation and reliability of the Arabic version of LASS (8-11)

The eight tests in LASS 8-11 (Arabic version) were standardised in order to find out where each child fell in respect of the population norms. The standardisation sample for LASS 8-11 in total was 1511 females and males in 29 different schools in various counties of Kuwait. The standardisation of this test was appropriate to this study in terms of age, language, culture and gender (see Arabic LASS 8-11 teacher's manual). To test the reliability of LASS 8-11 they measure the internal consistency of the test by calculating statistically the Cronbach's alpha and the Spearman brown in order to show how closely the set of items are related as a group (Table 15 below shows the scores).

Table 15: Test reliability

Test	Cronbach's alpha	Spearman brown
Non-word	0.84	0.88
Segmentation	0.77	0.86
Sentence reading	0.93	0.79
Single word reading	0.91	0.89
Spelling	0.90	0.89
Audio memory	0.67	0.58
Visual memory	0.54	-
Reasoning	0.84	0.75

The validity of LASS 8-11 was tested by calculating the Correlation coefficient between each test and the overall score of it. The results showed that there was a correlation at 0.01 and 0.5 (see the details below). Another method they used to show the validity of the test was by comparing the scores of the group who had a high score with another group who had the lowest score and the results showed difference between the two groups was at 0.001 which is proof of its validity. Although the tests in the Arabic language were quite insufficient which why it is harder to compare LASS 8-11 with another computerized test, but what surprised me was that the idea of this test was taken from the English version of the test and there were a great deal to compare with in terms of the validity of the test. (Details about the limitation of the test were discussed in the discussion chapter).

3.20 Assessment of learning difficulties of the bilingual learner

Bilingualism has become more of an educational consideration over the last few decades due the widespread use of the English language as a language of international communication. In Oman particularly where this study took place some pupils are even multilingual due to the ethnic diversity that has shaped Oman over the years; which means some pupils speak, or at least listen to, the dialect spoken by their parents, use Arabic for general communication at school and use English in many classes at school including maths and sciences. Omani pupils who attended the monolingual national primary schools may not use English at school except for a few hours a week, but some might have a dialect language that they use at home which in some way or another can be considered a form of bilingualism.

Assessment for any pupil who has limited proficiency in two languages is a real struggle for parents, teachers and researchers as well. This process can be even more difficult when there are limited numbers of tests regarding literacy efficiency - which is exactly the case with the Arabic language. Although schools and people in general have become more aware of the term learning difficulties in the Middle East, up until now there is not a single Arabic assessment that has its mark in the realm of learning difficulties. Throughout the 4 years that I spent conducting this research, I came across the same papers regarding “dyslexia” in Arabic. Despite my searching several data bases, there were no new researchers that I came across which covered that area of assessment in the Middle East. However, I found a research study which was conducted in 2013 and concerned a framework to combine the linguistic features and the related cultural context of the Arabic language. The aim of this research study was

to develop a guideline to help those who are interested in designing an Arabic dyslexia training tool and also help evaluate the tools when designed (Fadwa AlRowais, et al., 2013). In my opinion this study is a good start because it shed light not only on the unique characteristics of the Arabic language but also highlighted the importance of the cultural context that surrounds this particular area. In conclusion, the assessment tools that cover the area of Arabic reading and comprehension are still very few and the existence tools including LASS (8-11) which I used in this study were exposed to a great deal of criticism amongst the researchers. Although LASS (8-11) was a trial version in terms of software, this did not stop me from pointing out all the weaknesses that surrounded it in each single sub-test (full discussion and analysis of the test is in chapter 5 below). Another part of identifying the pupils who are at risk of SpLD, no matter their language, is the intelligent capability. Many researchers used mainly non-verbal tests to assess the pupils, such as Wechsler Intelligence Scale for Children or Raven's Progress Matrices Test. Despite the fact that these tests are considered to be culture free, the norms for these tests were established either in the USA or the UK and not a single test was designed in the Middle East where the norms are Middle Eastern. Instead the instructions for some tests as mentioned above were translated to the Arabic language. Another important point to mention here is not only the lack of Arabic assessment, it is assessing the bilingual (Arabic –English) pupils who are struggling with English literacy by using British or American literacy tests. Despite the fact that the level of learning English in the Middle East is getting more attention from the governments and the schools, we can never consider their English to be as efficient as the English of native speakers, which raises a question on the reliability of the results obtained from these tests.

3.21 Study context

This study was carried out in a variety of bilingual (Arabic-English) and monolingual (Arabic) primary, public schools; (two females only schools and one male only school); and also private schools; (five private mixed-gender bilingual schools); in the Sultanate of Oman, over a period of four months. The private schools had pupils of various nationalities but were all from Middle Eastern countries where Arabic is their first language. The culture in the Arab world varies from one country to another but the language does not change dramatically. The schools that I have chosen to consider are in Muscat, the capital of Oman. Pupils from public schools normally come from vulnerable backgrounds and have less educated families compared to private schools,

where pupils are often from middle to high socioeconomic and educational backgrounds. In the private schools, the pupils are considered bilingual Arabic – English, because they study English on a daily basis. At school they communicate in both languages, in some classes such as mathematics and science which are taught in English they speak in English but not solely as they need the Arabic for explanation. Social sciences, Art for instance are taught in Arabic and the pupils use Arabic only. it is worth mentioning that each bilingual school differ in terms of the level of English as some used it more often than others.

Of the five bilingual schools that I visited, only two had special education facilities, and these facilities were limited and exclusively conducted in Arabic. Pupils were identified as having special educational needs by the special education teacher alone -with no higher authority monitoring the assessment procedure or checking the reliability of the tests used. The pupils in the other schools with no SEN facilities were classified anecdotally as pupils with low achievement. I also visited three public schools, two female only schools and one only male school. The female schools have special education facilities but the pupils were not identified according to any test and were instead chosen on the basis that they were low achievers, but named formally as pupils with SpLD.

3.22 Participants: sampling methods

The monolingual and the bilingual pupils who were nominated to take place in this study, were male and female, aged between 8 and 12 and were from grade 4 to 6.

To allocate them, I undertook two methods. The first method chosen was to give the assistant teachers and the head teachers a guide sheet (see appendix 5, 6) to help them distinguish the pupils who are at risk of having specific literacy difficulties from those who are typical literacy learners. The guide sheet included information which highlighted the common characteristics that the SpLD pupils encounter. For example: The pupils who are at risk of SpLD possess typical intellectual abilities, yet, display significantly greater difficulty in learning to read and write than the majority of students of the same age. This process allowed them, according to the guide sheet, to allocate the potential pupils much easier. I additionally discussed this sheet in depth with the teachers to ensure they understood the content. The second method I used was to select the pupils who were already assessed by the school as having SpLD to ease the process of choosing the right pupils but, this applied only to the schools with SEN facilities. The bilingual and the monolingual pupils with no literacy difficulties were

chosen from the same classes where the SpLD students were located; the only method I used within this group was to give the teachers a guide sheet which consisted of a list of information about the students who do not show any literacy or any cognitive problems. For example: the normal achiever is a pupil that can read, spell and write at the typical level corresponding with the majority of students of the same age (see the appendix 6 for the full read of the sheet). I also asked the teachers to categorise the students as above average, average, and below average. After this, I chose a group of 25 pupils randomly taking into account the list provided by the teachers. The pupils were the same age group as the SpLD group and they came from the same background, regardless of whether I conducted the assessment at a public school or a private school. All the pupils who participate in this study were asked before the assessment process started if they were willing to participate, only one child refused to participate because he cannot be bothered as he expressed. The reason for choosing 25 pupils per group is due to the length of the assessment and the length of the survey divided by the time that I can stay in Oman as I was a visitor in this country.

3.23 Participants: the variation of the numbers

The number of students in the two groups who were considered to have specific literacy difficulties varied depending on the criteria for SpLD used, while there were 25 pupils in the two groups who were at a typical literacy level. However, this number increased according to each definition; when the pupils were assessed and showed no literacy difficulties, the students moved from the SpLD group to the literacy level group. See the table below which explains in more detail the numbers according to each definition. After assessing the bilingual and the monolingual pupils in both Arabic and English (for bilingual only) following the models of identification mentioned above, the number of pupils who had specific literacy difficulties varied according to the model of identification and the strong or weak version of it. Tables 16 below outlined the numbers in more detail.

Table 16: Distribution of the pupils according to their literacy difficulties in Arabic and English

	Model's version	Monolingual pupils (n=55)	Bilingual pupils (n= 66)
The Discrepancy-attainment model	Strong version	None had SpLD	- 25 had SpLD in English ONLY with no difficulties in Arabic - Only 2 pupils had SpLD in English AND Arabic at the same time - The rest of pupils had NO SpLD at all
	Weak version	8 only had SpLD in Arabic	- 16 pupils had SpLD in English ONLY - NO difficulties in Arabic. - 13 pupils have SpLD in English AND Arabic together - The rest showed no SpLD
The attainment Model	Strong version	No one had SpLD	- 29 pupils have SpLD in English ONLY - 5 pupils have SpLD in English AND Arabic together - The rest showed no SpLD
	Weak version	11 had SpLD in Arabic	- 18 pupils had SpLD in English ONLY with no difficulties in Arabic. - 19 pupils had SpLD in English AND Arabic together

3.24 Bilingual and monolingual typical literacy level groups

The two groups that were chosen as being of typical literacy levels consisted of 25 pupils each, however, this number increased at some point during the categorising process. This happened when the bilingual and the monolingual pupils were assessed and showed no literacy difficulties according to one identification model or to a one version of the model. Thus, those pupils were moved from the SpLD group to the literacy level group. Below is a table that shows the distribution of each group according to the identification process.

Table 17: distribution of each group according to the identification process

Identification model/ version	**Reasoning/ strong**		**Reasoning/ weak**		**attainment/ strong**		**attainment/ weak**	
Literacy type	Typical	SpLD	Typical	SpLD	Typical	SpLD	Typical	SpLD
Monolingual	36	0	28	8	36	0	25	11
Bilingual	36	27	34	29	29	34	26	37
Total	99		99		99		99	

3.25 Data collection procedure

Stage 1: The identification procedure

Overall, I have assessed 99 pupils using the Arabic version of LASS (8-11) for monolingual pupils, and the English and Arabic versions of the LASS for the bilingual

pupils. I started by administering the analogical reasoning tests, memory tests (visual or auditory) and some literacy tests either in Arabic or in English which were part of LASS (8-11) either the Arabic or the English version. The reason for using this order was first to give the pupils the chance to familiarize themselves with the test, especially as the reasoning test was fairly comparable to a computer game. The second reason was to attain a better understanding of the pupils' reasoning and literacy skills, so that I could decide whether to continue administering the rest of the tests. Each of the eight tests of LASS 8-11 has spoken instructions by the computer as well as practice items. After the test commenced no further instructions were given; the test stopped after the pupil's performance exceeded a particular number of mistakes. The bilingual pupils went through the 12 sub-tests, 8 from the English version and 4 from the Arabic version. Yet the monolingual pupils did only 7 sub-tests – 3 Arabic literacy as well the Arabic non-word reading, along with the ontological reasoning and working memory (visual and auditory). The time administrating the 8 English tests varied a lot from one pupil to another, but the average was 20 minutes in three sessions within a period of 3 to 4 different days. At the end of the tests, no feedback was given to the students – I only explained kindly that they had finished the tests required.

Stage 2: administrating the self-concept questionnaire

After the assessment procedure, I administered the self-concept questionnaire for both the bilingual and the monolingual pupils who have SpLD and for those who are typical literacy level pupils. The questionnaire was first constructed in English; however, the pupils were given an Arabic version of it after it had been professionally translated by an Arabic-English translator. Given that the pupils had specific literacy difficulties, I had to ensure that the pupils understood the questionnaire precisely; for this I had several options depending on the facilities that each school gave me. I sometimes had a group of 5 students and I read each question to them and asked them to choose the closest answer to their preference. Another option was to read to each child in person, which was time consuming. Two special teachers in different schools also helped me, and they read part of the questionnaire for the pupils at the end of each session they had with them; but this also took a while to finish. The "Self-Description Questionnaire" was also given to another two groups of pupils who had no literacy difficulties – one was bilingual and the other monolingual. I distributed the questionnaire to the

whole class and gave them the instructions. To ensure that each pupil understood the questions, the Arabic language teacher helped me to read out loud to the class with me supervising the whole procedure and intervening when necessary. As it was not possible to assess the whole class to ensure that each pupil had no literacy difficulties, I decided with the language teachers to exclude the pupils who they believed did have any kind of literacy or learning problems in order to obtain more precise results.

Stage 3: administering the language learning scale- intrinsic/ extrinsic motivation

After the participants had taken the self-concept questionnaire, the bilingual groups only applied the intrinsic/extrinsic questionnaire. The questionnaire was short and the questions were straightforward, and the pupils who did not have any literacy problem had no difficulties in filling it in. However, to ensure that the SpLD group understood the questionnaire, I had to apply the same method I used in applying the self-concept questionnaire, by reading the questions on a one to one basis or in a small groups.

3.26 Ethical consideration of the quantitative design: General ethics

Ethical issues and moral considerations are fundamental parts in any research study, particularly as they can vary substantially from one area to another. Miller and Brewer, 2003 asserted that ethical issues tend to occur in all stages of a study, starting from the studied topic, planning the research design, conducting the research, data collection procedures, data analysis and lastly presenting the data. According to Cohen et al., 2007a these elements form the relationship between the researcher and the participants. Due to the fact that acting ethically during the course of the research has become increasingly important, ethical guidelines such as British Educational Research Association (BERA) have been composed, consisting of rules specifying the parameters of ethical conduct (Yin, 2011).

3.27 Ethics concerning the current study

The current study followed the ethical guidelines of the British Educational Research Association (BERA) and also embraced the guidelines of the ethical panels of the University of Exeter. Due to the fact that this study involved pupils whose ages are (8-12), several procedures were required. The ethical considerations that were thoroughly reviewed following the guidelines consisted of voluntary informed consent (Sections 10 and 11), consent from local authorities (13), the right to withdraw (Section 15), freedom from distress (Section 18), limitation from distress and discomfort (section 20) the limitation of bureaucratic burden on participants (Section 21), confidentiality and anonymity (Section 25) and disclosure (Sections 26). From these considerations, I will discuss in more depth in the sections below the distress and comfort and the consent from local authorities' aspects.

3.28 Distress and discomfort

The pupils in this study were exposed to a multiple-step procedure especially with the bilinguals. Each bilingual pupil had to take part in 13 sub-tests from LASS 8-11 in Arabic and English. Then each pupil had to fill in 88 items for the self-concept questionnaire and 12 items for the motivation scale along with 6 other pupils who were also interviewed. Apparently the time to do all the steps was very along and it was ethically crucial to ease the process and to limit the burden that each pupil may face. To help the pupils engage in this study without the burden, I asked each pupil to administer only one literacy test of LASS 8-11 at a time and more of the memory and the other tests as they seemed to enjoy these more especially as the tests were computerised. I also worked with each pupil, 10 minutes at a time, especially when they were withdrawn from the PE classes. Regarding the questionnaire, I formed them into groups and I read each question out loud during several sessions. Although I had divided the work into a number of sessions I made sure every time I met the pupils that they were still willing to continue and nothing was distressing them.

3.29 Consent from local authorities

Due to the fact that I collected data from Oman, a country that I did not belong to, I had to seek several approvals from different authorities in order to meet their standard considerations as mentioned in section 13 in BERA guideline.

The first approval I obtained was from the Ministry of Education in the sultanate of Oman, which allowed me to have access to the private and the national schools. Following this, I had also to seek consent from each school, especially the private schools, who had the right to disallow me to undertake my study in their schools. The last consent I had to secure was from the students' parents, although the national school allowed me to start collecting the data without the parent's permission because according to them they had the right to let their students be involved in any study if they thought it beneficial for the school and for the students themselves. (See the consents letters in the appendix).

3.30 Phase 2 of the study: case study design

As I mentioned earlier in the aim of the study, this study addressed a case study designed as a strategy which aimed to explain the results from the scientific based questionnaire (self- discreption questionnaire and the I/E motivation) and provide them with an in-context explanation of the self-concept of the bilingual (Arabic- English) pupils who have SpLD in compariosn to the monolingual SpLD.

3.30.1 Research questions for the case study design

What differences are there in terms of the consistency between the pupils' interview the pupil's questionnaireand the pupils' English and Arabic teacher's opinion? In terms of the:

a. general self-concept
b. Arabic reading self-concept
c. English reading self-concept
d. Social self-concept
e. Intrinsic and extrinsic motivation.

3.31 Case study design: description and rationale

The case study method is a "strategy" which allows the researcher to gather specific and more detailed information about complex phenomena or any challenging question within a study; it also allows the researcher to obtain information from multiple methods such as surveys, questionnaires and interviews to help complete the whole image of a particular issue studied. Yin, 1994 claims that case studies can bring a holistic understanding of a real-life case. Case studies are divided according to Cresswell, 2007 as explanatory, exploratory, or descriptive and Yin, 2003 also differentiates between single, holistic and multiple-case studies. The design I embraced in this study is a multiple-case study since it enabled me to explore any differences and similarities within and between cases. Yin, 2003 outlined the fact that multiple cases studies can be used either to predict similar results or predict contrasting results for predictable reasons.

In this multiple case studies design, I aimed to explore and explain some of the factors that might help me understand if there were any differences or similarities within the bilingual SpLD pupils themselves especially among the pupils who had SpLD in one language as opposed to those who had it in two languages (Arabic and English). I also aimed to test the hypothesis that I made earlier in this study which claimed that the bilingual pupils with SpLD had a more negative self-concept than the monolingual pupils with SpLD. Due to the fact that triangulation of multiple data sources is significant within case study analysis (Creswell, 1998), an in-depth interview was obtained by using a semi-structured interview with both the bilingual pupils with SpLD and their teachers along with manipulating the results obtained from the scientific based survey.

3.32 Interviews: pupils with SpLD and their teachers

3.32.1 Description and rationale

The interview is considered to be one of the most used methods in qualitative-based designs (Brinkmann, 2008) because it is reciprocate of views between two or more individuals on a topic of common interest (Kvale, 1996). The idea behind choosing to embrace an interview in this particular study was its flexibility and its capability to extract authentic and spontaneous information from pupils aged (8-

12) which was not possible to obtain from a scientific survey as it could only provide comparative results.

In this study I undertook a semi-structured interview which was ideal for this study because semi-structured interview was placed in the middle between structured and unstructured interview (Barlow, 2010); which in my case meant that although the questions were designed to meet the needs of the younger pupils, it was also flexible enough to manipulate the questions by omitting some if necessary or maybe merged others together depending on the pupil's responses. Since the personalities of the pupils in this study varied from one case to another, as some were very articulate and others were not wordy at all, I found that semi-structured interview was the best method to apply and could also be ethically approved.

As I mentioned earlier the views of the bilingual pupils with SpLD who studied two languages (Arabic and English) were not sufficiently investigated. Thus the focus of this stage of the study was to understand in more depth how the pupils perceived themselves in each facet of the self-concept and whether their general or social self-concepts were affected by their literacy difficulties. I also wanted to know if they were consistent with the way they viewed themselves if I considered the interview and the self-concept questionnaire at the same time. It was also significant to compare the views of the Arabic and the English teachers regarding the views of the pupils themselves to understand the relationship between both of them. In the section below I have outlined the areas of investigation which were covered by the interview questions in order to extract perspectives from both the pupils and the teachers.

3.32.2 Areas covered by the interview

a. general self-perception.

b. Response to literacy difficulties.

c. Friendship and social relationships.

d. intrisic/ extrinsic motivation.

These areas of investigation concentrated on the pupil's long-term literacy difficulties and how this had an impact on them and other facets of the self-concept. It also helped compare the pupils learning process with the teacher's points of view.

3.33 Design of the semi-structured interview

The design of the interview was derived first and foremost from the self-concept questionnaire by Marsh (1978) which covered all facets of the self-concept from the specific facet to a more general one. I have developed the questions having in mind the hierarchy structure of the self-concept. Due to the fact that the interview was designed as semi-structured, I have also added a few more questions after assessing the pupils, hence I adapted the questions according to their literacy results in order to examine if they were aware of their literacy difficulties in certain areas of a particular language. I have also considered questions about motivation to learning a foreign language derived from the motivation scale. Regarding interviewing the pupil's teacher, I made sure that the questions covered the same area of interest as mentioned above yet, modified them to fit the teacher's knowledge of their students.

3.34 Trustworthiness: general understanding

The terms validity and reliability are always considered to be very significant in a quantitative based design such as a survey or experiment. And although the ideas behind these two concepts are still applicable to the qualitative based design it appears however to be very problematic (Bassey, 1999). Although the terms regarding the qualitative research are challenging, this however did not transpire to be an unimportant matter in the research. The terms used in the qualitative research varied throughout the literature, Lincoln and Guba, 1985 considered different terms some of which are credibility, applicability and trustworthiness which I considered myself in this phase of the study. The main idea behind trustworthiness was that the researcher should be aware of certain responsibilities while conducting a case study during research. These responsibilities are summarised as (a) (the research study is clear enough for the reader) (b) the case study design is suitable for the research question; (c) the sampling strategies were also meaningful and suitable for answering the research question; (d) data were collected and analysed appropriately (Russell, Gregory, Ploeg, DiCenso, & Guyatt, 2005).

3.35 Trustworthiness of the interviews

Since the pupils who took part in my study were between (8 and 12), I had to ensure that the questions asked were understandable and clear enough for them. Due to the fact that the Arabic accent varies from one country to another (in my case my accent is rather different from the accent of the Omani pupils), I had to make sure I replaced some of the words that I was aware they would not understand with other words taken mainly from the formal version of the language. I also practiced asking the questions to a couple of Omani pupils whom I met outside the schools to ensure that the questions were clear to them. In terms of reliability, first of all I drafted the main questions in the English language and I categorised them into different parts as mentioned above to ensure that I covered all the areas that I wanted to investigate. I then handed them to my supervisor for revision and feedback. The process took some time between rephrasing some of the questions and adding or omitting some until we thought that we had them clear enough to be understood by the pupils and that they were also suitable to the teachers. After that I had to translate the questions into the Arabic language which was also reviewed afterward by a bilingual English- Arabic translator.

3.36 Case study Participants

The number of pupils who took part in the interview was 6. They were all between 10 and 12 years old and from the same school but from different classes; which meant they had the same learning environment. Originally I intended to interview pupils from a different age group (8-12) as the study suggested. But when I interviewed pupils who were 8 and 9 years old it was not a success. They tended to be very shy about talking to me and they never gave long answers or articulated in any way for the most part, but rather gave a “Yes” or “No” answers. Due to this I decided to interview pupils who were older than them which went successfully.

3.37 Sampling criteria

Sampling strategy for a qualitative design is as significant as that for quantitative design. Qualitative research design tends to use non-probability strategy because it has no aim to produce a statistically representative sample but rather needs to explain a phenomenon which can only appear once in the sample.

Mason, 2002 postulated that qualitative sampling needs a strategic and practical way of sampling in order to find the data needed which also fits the research questions. In this study I used one of the most common sampling strategies in qualitative research which is normally used in small samples and is called the purposive sampling. The sample size according to this strategy depends on the resources and time available which also complements the aim of the study.

3.38 The purpose of sampling in this qualitative phase

The purpose of the sampling in this study was to identify a number of bilingual pupils who have SpLD according to one of the two models I set to identify them. This had to be in one or two languages and either in the strong or the weak version of the model (details about each model mentioned in section 3.5.6 above). The shared phenomenon between the 6 cases was that they had all studied English for at least 5 years and they showed certain learning difficulties consistently for two years.

3.39 The sampling procedures

The case studies pupils who took part in this study were chosen according to their results derived from LASS 8-11 in both English and Arabic. After the assessment procedures I analysed the data and chose 6 students according to their nature of SpLD (See table 18 for details). I made sure when I chose the pupils to take part in the case study, that they had SpLD in English according to both the discrepancy-achievement model and the attainment lowest 10% model in the strong version. These data were taken from the assessment tests of LASS (8-11) - the English version. I also chose pupils who had SpLD in English and Arabic at the same time so I could see if having SpLD in both languages has any negative impact on the general self-concept and the social self-concept. Another criterion I set, was to choose pupils who had no SpLD in Arabic at all but had it in English which was easy to find. After choosing the participants according to their results in LASS (8-11) the pupils completed the self-concept questionnaire and the foreign language learning motivation scale. I then analysed their data in order to prepare for the interview.

Each pupil was interviewed individually with no interruption from others and according to the time the class teacher set for him or her. After that each interview

was analysed in order to compare pupils' interview and questionnaire data with the pupils' English and Arabic teachers' opinions. This consistency was examined in terms of the general self-concept, Arabic reading self-concept, English reading self-concept, social self-concept and intrinsic and extrinsic motivation. Besides, I have highlighted the differences in terms of the general and social self-concept between the pupils who have SpLD in both languages and the ones who had no SpLD in Arabic or had SpLD in the weak version of one model of identification.

The design of each case study was based on the experiences I had when I was a school counsellor; what information I wanted to know about each pupil, what results they get when they were assessed, how they perceive themselves as learners and as individuals, what views their teachers have of them from working daily with each pupil. Accordingly, I structured each case study from the perspective of someone who would want to know more about this particular pupil. Starting from the basic information, results of LASS (8-11), personal information, and their perception about their academic and non-academic which included also views from their English and Arabic teacher about their academic and non-academic life. The cases mentioned in this study has no particular order except that I started with those who have SpLD in both English and Arabic at the same time and moved on to those who have it in one language only. It is noted that the the names of the pupils mentioned in the case study chapter were pseudonyms.

Table 18: Summary of the nature of SpLD among the 6 case studies

	No SpLD	Arabic			English		
model		**attainment**	**discrepancy**	**Both**	**attainment**	**discrepancy**	**both**
Majd		Weak	Strong	SpLD in both models	Strong	Strong	SpLD in both models
Adam		Weak	Strong	SpLD in both models	Strong	Strong	SpLD in both models
Rami		Strong	No SpLD		Strong	Strong	SpLD in both models
Sam		Strong	No SpLD		Strong	Strong	SpLD in both models
Inad	No SpLD in Arabic				Strong	Strong	SpLD in both models
Sarah	No SpLD in Arabic				Strong	Strong	SpLD in both models

3.40 Interview timing and procedures

The case studies procedures were conducted in 2014. The 37 pupils who were identified as having SpLD had to take a self-concept questionnaire and foreign language motivation scale. Hence after interviewing the 6 pupils their scores in the scales were already analysed. The interviews were carried out in the second term of the academic year. It is important to mention here that the 6 students who were considered for the interview were from the last school that I visited which means there were no gap between assessment, survey and the interview. The time for each interview varied according to each pupil, some were very articulate and they extend their answers beyond the questions, while others seemed to give only short answers. On average each interview took around half an hour. Concerning the interview with the teachers which took place in parallel with the pupil's interview; I used to interview each child first then interview his or her Arabic and English teachers afterward. This strategy helped me to gather more information about the pupil before I interview him so I can adjust some questions when necessary.

3.41 Ethical consideration for phase 2 – the qualitative design-

The ethical issues that might arise in the qualitative design can present a dilemma especially with interviews and their following recorded materials. To cut down any adverse ethical issues within this study I followed the ethical guideline of British educational research association (BERA) as I described in section (2.5.12)

above. Throughout the preparation of this study I considered two ethics that I found highly important when it came to interviewing young pupils. The first one is the voluntary informed consent and the second one is confidentiality and anonymity which was discussed in the BERA guideline

3.42 Voluntary informed consent

Throughout preparing the study I made sure that all the participants whether they were pupils or teachers were completely aware of the consent to participate in this study. As I mentioned in the quantitative design section the pupils who took part in this study did not sign the form themselves as the school itself had the right to sign on their behalf. The students' parents however were sent a consent letter to inform them about the study and the participation of their children and they needed to sign it before I could start the process. Although the pupils had not signed a consent letter to be involved in this study, the role of the school counselor was significant as the explanation given to the participant about the importance of the study and the steps that would be involved was clear. On the other hand I also asked each pupil if they wanted to volunteer and whether they were happy to proceed. The teachers moreover were very willing to participate and they were informed orally by the school principle and they agreed to volunteer.

3.43 Confidentiality and anonymity

The first step that I took when I met the participants was to briefly outline the aim of the study and why he or she had been chosen from amongst the whole group to participate. I then informed them that the interview would not be given to anyone in school or outside the school and all the materials would be safe. I also told them that the papers and the recordings would be destroyed after analysing the data. None of the participants was concerned about the recording and some rather enjoyed the experience.

3.44 Conclusion of the chapter

This chapter outlined the theoretical assumptions of the methodology and discussed the methods used in this study. Then the chapter addressed the purpose of using a mixed methods design and the controversial issues that surround it. This led to the discussion about the advantages and disadvantages of using this design in this particular study which included quantitative design in phase one and qualitative design in phase two. In each phase of the study the methods, tools and other ethical considerations were discussed in detail and were supported by the reliability and the validity of each survey and instrument used as well as the trustworthiness for the qualitative design. An important stage of assessing the pupils was also considered in detail; the rational and the description of the tools. Validation and reliability were also discussed with some criticism concerning the Arabic tool. In each stage of this chapter a table or a figure was drawn when necessary to ease the understanding of the process.

Chapter 4: Data analyses - Survey

4.1 Introduction

This chapter reports on the quantitative analysis and the findings of the quantitative phase of this study. The quantitative analysis associates with research question one which is mentioned in section (4.4.1, 4.4.2, 4.4.3, 4.4.5) below along with other subsidiary questions mentioned in sections (4.5, 4.6, 4.7) below. The results were obtained from the self-concept survey, and the foreign language learning orientation scale/ intrinsic – extrinsic along with the results acquired from the two assessment tools LASS (8-11) the Arabic and English version. Each question started with the sampling section, followed by the particular comparison and then the analysis itself. A conclusion was drawn at the end of this chapter to sum up the results of the whole phase.

4.2 School's context:

The educational system in Oman only started to take shape in 1970 when Sultan Qaboos, the ruler of the country, came to power. This means Oman used to have a very basic educational system that did not look anything like the educational system that we are all familiar with today. The quality of education has also improved from only religious focused schools to a much wider curriculum which consists of many subjects including a second language. Although learning a second language is a rather important factor in the Omani educational system, the primary state schools are still today considered monolingual schools where the pupils learn Arabic as the main language in every subject including maths and social sciences. Having said that, English is still taught in these schools as a second language, yet the pupils have very little knowledge of English and were unable to read, write or communicate in English. With reference to the visits that I made to a large number of schools in Oman in 4 months; the amount of time I spent there; I came to the conclusion that most state schools host pupils whose parents cannot afford to pay for private education since the state schools are free and schooling is obligatory for all pupils. This means that people who are from a middle to upper class socio-economic background tend to choose private schools where it is assumed that they get a better education for their children. A third option for education in Oman are the international schools in which the pupils are

taught by very qualified teachers from right across the globe. As mentioned earlier, a second language which is mainly English does not get much attention in the state school, especially at the primary level. The level of English also varies from the middle class private schools to the international schools. In the private schools where I was allowed to collect the data, English is treated as a very important subject and is taught up to 10 hours per week along with using it during maths and science classes too. Students on the other hand find it difficult to master the English language and they find it very challenging. These observations come from meeting a great deal of students and many English teachers. Although the interview with the teachers were focused on particular pupils, they were very generous with their time and also told me about the struggle they have with the majority of the pupils as they do not give much attention to English. It is also worth mentioning that the majority of the English teachers are from non-English speaking countries such as Egypt, India, and Jorden. Another factor that varies from the private to the state schools is the fact that in the state schools there is gender segregation whereas in the private schools they are mixed and boys and girls can be in the same class together.

In terms of special education, the ministry of education has established special schools for all sorts of impairments but there was no recognition of literacy difficulties. Despite that, a couple of the state school that I have visited have a special education department and they deal with pupils who have literacy difficulties. But, according to the teachers there was no special training for them and they choose the pupils to have the special education service according to their literacy scores and there were no other criteria considered. In the private schools, only one school that I dealt with had a special education department, but again the teachers were not trained and the pupils were also chosen on account of their low literacy scores. These pupils were referred to as “dyslexics”. The number of visits that I made to the schools varied from one school to another, as some head teachers were supportive and others were very restrictive and not very welcoming. The teachers on the other hand were very helpful and enjoyed the interview and were very willing to give any information that they thought might help my research. Some teachers in the private school took this interview as an opportunity to complain about the behaviour of their students as they did not believe that the pupils actually had literacy problems in either English or Arabic

but rather that they were lazy and made no effort to study.

4.3 The use of the samples

Initially 25 pupils from each group (monolingual and bilingual) who were at risk of having specific literacy difficulties were chosen to take part in this study, along with another 25 pupils from each group (mono-Bil), who showed typical literacy levels. The number of pupils in each group however changed after assessing the pupils due to the fact that some had SpLD according to one but not the other criteria, which is why I moved their places in this regard. In total, 99 pupils took part in this study regardless of their position. The number of monolingual pupils who were assessed using LASS (8-11) the Arabic version, was more than 55 pupils, however, only (n=11) of them were considered to have SpLD according to one criteria or another. The number of pupils who were assessed using LASS (8-11) the English and the Arabic version together was more than 66 students however, only 34 (n=34) showed specific literacy difficulties according to different criteria, which is explained in more details in the methodology chapter. The number of self- concept questionnaires distributed to the participants were in total (n=99). The same number of questionnaires regarding the intrinsic/extrinsic foreign language learning scale were given to the bilingual pupils with SpLD (n=34) and the bilingual pupils with typical literacy levels (n=25). Table 19 below showed the distribution of each group according to the two models of identification which were the discrepancy and the attainment model, which is explained in more detail in chapter 3.

Table 19: distribution of each group according to the identification process

Identification model/ version	**Reasoning/ strong**		**Reasoning/ week**		**attainment/ strong**		**attainment/ week**	
Literacy type	Typical	SpLD	Typical	SpLD	Typical	SpLD	Typical	SpLD
Monolingual	36	0	28	8	36	0	25	11
Bilingual	36	27	34	29	29	34	26	37
	99		99		99		99	

4.4 Internal reliability (Cronbach's α) results for the self-concept and intrinsic/extrinsic questionnaire.

As indicated in the introduction, this chapter is about the analyses of the results of the two questionnaires; the self-concept and the intrinsic/extrinsic motivation

scale. But before discussing the results I first want to discuss the internal consistency of the two questionnaires and Cronbach's alpha (α). Calculating alpha has become a common practice to measure the reliability of a several-items test questionnaire, which is also considered much easier than other methods such as the test-retest reliability estimates. Alpha, however, questions the idea of to what extent all the items of the instrument measure the same attribute or dimension (Cronbach, 1951; Cortina, 1993; Sijtsma, 2009). The procedures I used to obtain the internal reliability of the two questionnaires was through SPSS statistical software. The self-concept questionnaire consisted in total of 66 items – however, it was duplicated in the literacy section with another 22 items for measuring Arabic reading self-concept (10-item scale), Arabic spelling self-concept (6-item scale), and Arabic handwriting self-concept (6-item scale) - but these items made no difference to measuring the alpha as they were the same as the English literacy items. These 66 items were divided into a variety of different item-scales; for the general self-concept it consisted of a 10- item scale: mathematics 10-item scale, reading 10-item scale, spelling 6-item scale, handwriting 6-item scale, school subject 6-item scale, athletics 9-item scale, and finally the social self-concept which consisted of a 9-item scale.

Concerning intrinsic/ extrinsic motivation, the overall items were 12: a 6-item scale for intrinsic motivation and a 6-item scale for extrinsic motivation. The two questionnaires were based upon a Likert-scale which consists of 6 variations and were: False, mostly false, sometimes false, sometimes true, mostly true, and true. As alpha α is (0) when there is no correlation among scores and is (1) where there is a perfect correlation; hence, the results obtained by the SPSS to calculate the internal reliability showed that the general self-concept had a low alpha of (α= .578), while the rest of the items had a high alpha α score. Maths self-concept, for instance had α= .842, reading self-concept (α= .857), spelling self-concept (α= .815), handwriting self-concept (α= .813), general school self-concept (α= .788), athletic self-concept (α= .794) and finally social self-concept (α= .735) (See table 20 below for more details).

The results demonstrated that the items which had a high score in alpha (α) were correlated, however, the general self-concept items showed a low correlation and thus those items were not reliable and therefore were excluded from the questionnaire. The rest of the item-scales in the self-concept questionnaire showed a high correlation and were considered reliable and kept in the

questionnaire. Furthermore, the alpha scores obtained from the intrinsic and extrinsic motivation showed a high score in which the intrinsic motivation had (α: .975) and the extrinsic motivation had (α: .959), which meant that these item scales were reliable to use in the study (Table 20 below outlined in more detail the internal reliability of all the tests).

Table 20: Internal reliability of self-concept and the I/E motivation questionnaire

	Cronbach's Alpha	Cronbach's Alpha based on Standardized Items	Number of Items
general self-concept	.578	.578	10
Math self-concept	.842	.845	10
Arabic reading self-concept	.857	.866	10
Arabic spelling self-concept	.815	.820	6
Arabic handwriting self-concept	.813	.810	6
general school self-concept	.788	.796	6
Athletic self-concept	.794	.770	9
Social self-concept	.735	.745	9
intrinsic motivation	.975	.975	6
extrinsic motivation	.959	.958	6

4.5 Analysis of the self- concept questionnaire

The main aim of this study is to find out any differences between bilingual pupils with SpLD and monolingual pupils with SpLD in comparison with the bilingual and the monolingual pupils who were typical literacy level. The comparisons were made from the perspective of self-concept, starting from the academic self-concept; (a) English reading self-concept, (b) English spelling self-concept, and (c) English handwriting self-concept, (d) Arabic reading self-concept, (e) Arabic spelling self-concept, (f) Arabic handwriting self-concept and (g) mathematic self-concept, then moving to the non-academic self-concept; (h) social self-concept and finally (i) athletic self-concept. The comparison of the self-concept was made among 4 different groups; the first comparison was between monolingual SpLD vs. bilingual SpLD; the second comparison was between monolingual SpLD vs. monolingual typical literacy level, the third comparison was between bilingual SpLD vs. bilingual typical and the fourth one was between monolingual typical vs. bilingual typical. The comparison of the intrinsic/ extrinsic motivation was between bilingual pupils with SpLD and bilingual pupils with typical literacy levels. The tables from 21- 37 represent the results derived from the self-concept

questionnaire, and the mean score represent the Likert scale which is from 1 to 5, where 1 is false and 5 is true.

4.5.1 Comparison (1): The comparison of the self-concept between monolingual SpLD vs. bilingual SpLD

Table 21 and 22 below represent standardised test scores of the self-concept questionnaire between the monolingual pupils with SpLD and the bilingual pupils with SpLD. As mentioned earlier the number from each group varies according to the identification model. According to the discrepancy/weak model the monolingual SpLD pupils were n=8 and the bilingual SpLD pupils were n=29. While the number was different concerning the attainment/ weak model as the monolingual SpLD pupils were n= 11 and the bilingual SpLD pupils n= 37. It is clear from the tables below that there were no significant differences between the two groups in any of the sub-tests of the self-concept questionnaire.

Table 21: Monolingual SpLD vs. bilingual SpLD (discrepancy/weak)

	Groups	N	Mean	Std. Deviation	T. Value	DF	probability
Math self- concept	Mono	8	3.75	0.64	-0.22	35	0.82
	Bil.	29	3.81	0.74			
Arabic reading self-concept	Mono	8	3.61	0.86	-0.48	35	0.63
	Bil.	29	3.76	0.75			
Arabic spelling self-concept	Mono	8	3.12	0.85	-1.78	35	0.08
	Bil.	29	3.70	0.79			
Arabic handwriting self-concept	Mono	8	3.95	0.49	0.62	35	0.53
	Bil.	29	3.74	0.93			
General school self-concept	Mono	8	3.41	0.85	-0.83	35	0.41
	Bil.	29	3.64	0.63			
Athletic self-concept	Mono	8	3.90	0.55	-0.20	35	0.83
	Bil.	29	3.95	0.58			
social self-concept	Mono	8	4.06	0.86	1.13	35	0.26
	Bil.	29	3.72	0.74			

P value: *: 0.05 / **: 0.01

Table 22: Monolingual SpLD vs. bilingual SpLD (attainment/ weak)

	Groups	N	Mean	Std. Deviation	T. Value	DF	probability
Math self- concept	Mono	11	3.85	0.59	0.46	46	0.64
	Bil.	37	3.73	0.80			
Arabic reading self-concept	Mono	11	3.70	0.75	-0.64	46	0.52
	Bil.	37	3.88	0.79			
Arabic spelling self-concept	Mono	11	3.31	0.81	-1.43	46	0.15
	Bil.	37	3.69	0.76			
Arabic handwriting self-concept	Mono	11	4.13	0.54	1.03	46	0.30
	Bil.	37	3.83	0.90			
General school self-concept	Mono	11	3.60	0.83	-0.10	46	0.91
	Bil.	37	3.63	0.66			
Athletic self-concept	Mono	11	3.87	0.54	-0.46	46	0.64
	Bil.	37	3.97	0.59			
social self-concept	Mono	11	3.90	0.94	0.66	46	0.50
	Bil.	37	3.72	0.73			

P value: *: 0.05 / **: 0.01

4.5.2 Comparison (2): The comparison of the self- concept between monolingual SpLD vs. monolingual typical literacy levels.

The second comparison was made between the monolingual pupils with SpLD and the monolingual pupils who were typical literacy levels according to the discrepancy/ weak and the attainment/ weak models of identification. The results showed that there was a significant difference in Arabic self-concept according to the reasoning/weak and attainment/ weak criteria, when P-value is P<0.0; Arabic handwriting also showed significant differences between the two groups in the reasoning/weak only as P-value is <0.5; There was another significant difference in Arabic spelling self-concept according to reasoning/weak and attainment/weak criteria when P-value is <0.5, the last significant differences which appeared between the two groups was in the general school self-concept according to the reasoning/ weak and the attainment weak criteria ,when P-value is <0.3 -0.1 respectively. The rest of the scales of the self-concept did not show any statistical differences between the two groups in any of the versions - the scales were the English reading self-concept, English handwriting self-concept, English spelling self-concept, Mathematics self-concept, athletic self-concept and social self-concept. Table 23 and 24 below show the comparison between the monolingual SpLD and the monolingual typical in more detail. In table 25 I set up a table to summarise the results when there are significant differences between monolingual SpLD and monolingual typical literacy level in the two versions.

Table 23: Monolingual Typical vs. monolingual SpLD (attainment/ Weak)

	Groups	N	Mean	Std. Deviation	T. Test	DF	probability
Math self-concept	SPLD	11	3.85	0.59	-0.88	34	0.38
	Typical	25	4.10	0.84			
Arabic reading self-concept	SPLD	11	3.70	0.75	-3.61	34	0.00**
	Typical	25	4.50	0.53			
Arabic spelling self-concept	SPLD	11	3.31	0.81	-3.80	34	0.00**
	Typical	25	4.32	0.69			
Arabic handwriting self-concept	SPLD	11	4.13	0.54	-1.33	34	0.19
	Typical	25	4.40	0.56			
General school self-concept	SPLD	11	3.60	0.83	-2.20	34	0.03*
	Typical	25	4.23	0.76			
Athletic self-concept	SPLD	11	3.87	0.54	-0.62	34	0.53
	Typical	25	4.00	0.55			
social self-concept	SPLD	11	3.90	0.94	0.28	34	0.78
	Typical	25	3.83	0.60			

P value: *: 0.05 / **: 0.01

Table 24: monolingual typical literacy levels vs. monolingual SpLD (discrepancy/ Weak)

Self-concept	Groups	N	Mean	Std. Deviation	T. Test	DF	probability
Math self-concept	SPLD	8	3.75	0.64	-1.14	34	0.25
	Typical	28	4.10	0.80			
Arabic reading self-concept	SPLD	8	3.61	0.86	-3.35	34	0.00**
	Typical	28	4.44	0.53			
Arabic spelling self-concept	SPLD	8	3.12	0.85	-3.96	34	0.00**
	Typical	28	4.26	0.67			
Arabic handwriting self-concept	SPLD	8	3.95	0.49	-2.18	34	0.03*
	Typical	28	4.42	0.54			
General school self-concept	SPLD	8	3.41	0.85	-2.61	34	0.01**
	Typical	28	4.22	0.74			
Athletic self-concept	SPLD	8	3.90	0.55	-0.36	34	0.71
	Typical	28	3.98	.55			
social self-concept	SPLD	8	4.06	0.86	0.94	34	0.35
	Typical	28	3.79	0.67			

P value: *: 0.05 / **: 0.01

Table 25: Summary of the self-concept questionnaire between monolingual SpLD and monolingual typical literacy level

Variables	Criteria	Significant differences
Arabic reading self-concept	Reasoning/ Weak attainment/ Weak	Typical > SPLD/ P < 0.0
Arabic handwriting self-concept	Reasoning/ Weak	Typical > SPLD/ P < 0.5
Arabic spelling self-concept	Reasoning weak attainment/ Weak	Typical > SPLD/ P < 0.5
General school self-concept	Reasoning/ Weak Attainment Weak	Typical > SPLD/ P < 0.3 – 0.1

4.5.3 Comparison (3): The comparison of the self- concept between the bilingual pupils with SpLD and bilingual typical literacy levels pupils.

The third comparison was made between the pupils who were bilingual SpLD and bilingual typical literacy level; the only significance differences shown between these two groups was in the English reading self-concept and the English spelling self-concept. In the English reading self-concept the significant differences were that the p-value is < 0.5 according to the attainment/ strong and attainment/ weak; while the English spelling self-concept showed significant differences according to three criteria: reasoning/ weak, attainment/ strong and attainment/ weak when P < 0.5. The rest of the items scale showed no significant differences in any criteria; these scales are Arabic reading self-concept, Arabic handwriting self-concept, Arabic spelling self-concept, English handwriting self-concept, mathematics self-concept, general school self-concept, athletic self-concept and social self-concept. Table 26, 27, 28 and 29 display the results obtained from comparing the two groups according to the 4 criteria of identification followed by a summary. In table 30 I summarised the results when there are significant differences between the bilingual SpLD and the bilingual typical.

Table 26: Bilingual SpLD vs. bilingual typical (Reasoning/ Weak)

	Groups	N	Mean	Std. Deviation	T. Test	DF	probability
Math self-concept	SPLD	29	3.81	0.74	0.09	61	0.92
	Typical	34	3.79	0.89			
Arabic reading self-concept	SPLD	29	3.76	0.75	-1.14	61	0.25
	Typical	34	3.98	0.79			
Arabic spelling self-concept	SPLD	29	3.70	0.79	-0.74	61	0.45
	Typical	34	3.86	0.90			
Arabic handwriting self-concept	SPLD	29	3.74	0.93	-0.87	61	0.38
	Typical	34	3.94	0.86			
English reading self-concept	SPLD	29	3.74	0.74	-1.32	61	0.18
	Typical	34	4.01	0.83			
English spelling self-concept	SPLD	29	3.72	1.01	-1.97	61	0.05*
	Typical	34	4.20	0.89			
English handwriting self-concept	SPLD	29	3.91	0.95	-0.57	61	0.57
	Typical	34	4.05	1.05			
General school self-concept	SPLD	29	3.64	0.63	-1.38	61	0.17
	Typical	34	3.90	0.81			
Athletic self-concept	SPLD	29	3.95	0.58	0.83	61	0.40
	Typical	34	3.80	0.80			
social self-concept	SPLD	29	3.72	0.74	0.02	61	0.97
	Typical	34	3.71	0.67			

P value: *: 0.05 / **: 0.01

Table 27: Bilingual SpLD vs. Bilingual Typical Reasoning/ Strong

	Groups	N	Mean	Std. Deviation	T. Test	DF	probability
Math self-concept	SPLD	27	3.84	0.75	0.34	61	0.73
	Typical	36	3.77	0.87			
Arabic reading self-concept	SPLD	27	3.77	0.77	-1.00	61	0.32
	Typical	36	3.96	0.78			
Arabic spelling self-concept	SPLD	27	3.73	0.79	-0.43	61	0.66
	Typical	36	3.82	0.89			
Arabic handwriting self-concept	SPLD	27	3.72	0.93	-0.92	61	0.36
	Typical	36	3.93	0.87			
English reading self-concept	SPLD	27	3.74	0.75	-1.28	61	0.20
	Typical	36	4.00	0.82			
English spelling self-concept	SPLD	27	3.73	1.04	-1.81	61	0.07
	Typical	36	4.17	0.88			
English handwriting self-concept	SPLD	27	3.91	0.97	-0.49	61	0.62
	Typical	36	4.04	1.03			
General school self-concept	SPLD	27	3.68	0.63	-0.90	61	0.37
	Typical	36	3.85	0.82			
Athletic self-concept	SPLD	27	3.91	0.58	0.424	61	0.67
	Typical	36	3.83	0.79			
social self-concept	SPLD	27	3.76	0.74	0.463	61	0.64
	Typical	36	3.68	0.67			

P value: *: 0.05 / **: 0.01

Table 28: Bilingual SpLD vs. bilingual typical (attainment/ Weak)

	Groups	N	Mean	Std. Deviation	T. Test	DF	probability
Math self-concept	SPLD	37	3.73	0.80	-0.81	61	0.42
	Typical	26	3.90	0.84			
Arabic reading self-concept	SPLD	37	3.88	0.79	-0.00	61	0.99
	Typical	26	3.88	0.77			
Arabic spelling self-concept	SPLD	37	3.69	0.76	-1.00	61	0.32
	Typical	26	3.91	0.96			
Arabic handwriting self-concept	SPLD	37	3.83	0.90	-0.11	61	0.90
	Typical	26	3.86	0.91			
English reading self-concept	SPLD	37	3.71	0.80	-2.10	61	0.04*
	Typical	26	4.13	0.73			
English spelling self-concept	SPLD	37	3.69	0.98	-2.97	61	0.00**
	Typical	26	4.39	0.80			
English handwriting self-concept	SPLD	37	3.86	1.01	-1.25	61	0.21
	Typical	26	4.17	0.97			
General school self-concept	SPLD	37	3.63	0.66	-1.98	61	0.05*
	Typical	26	4.00	0.81			
Athletic self-concept	SPLD	37	3.97	0.59	1.39	61	0.16
	Typical	26	3.72	0.83			
social self-concept	SPLD	37	3.72	0.73	0.15	61	0.87
	Typical	26	3.70	0.67			
Intrinsic motivation	SPLD	37	4.01	0.66	-0.86	61	0.38
	Typical	26	4.16	0.66			
Extrinsic motivation	SPLD	37	3.81	0.74	-1.12	61	0.26
	Typical	26	4.02	0.74			

P value: *: 0.05 / **: 0.01

Table 29: Bilingual SpLD vs. Bilingual typical (attainment/ strong)

	Groups	N	Mean	Std. Deviation	T. Test	DF	probability
Math self-concept	SPLD	33	3.68	0.79	-1.23	61	0.22
	Typical	30	3.93	0.84			
Arabic reading self-concept	SPLD	33	3.83	0.79	-0.47	61	0.63
	Typical	30	3.93	0.77			
Arabic spelling self-concept	SPLD	33	3.71	0.77	-0.69	61	0.49
	Typical	30	3.86	0.93			
Arabic handwriting self-concept	SPLD	33	3.79	0.91	-0.47	61	0.63
	Typical	30	3.90	0.89			
English reading self-concept	SPLD	33	3.70	0.82	-1.98	61	0.05*
	Typical	30	4.09	0.73			
English spelling self-concept	SPLD	33	3.67	1.02	-2.84	61	0.00**
	Typical	30	4.33	0.78			
English handwriting self-concept	SPLD	33	3.82	1.04	-1.37	61	0.17
	Typical	30	4.17	0.93			
General school self-concept	SPLD	33	3.65	0.68	-1.42	61	0.15
	Typical	30	3.92	0.79			
Athletic self-concept	SPLD	33	3.93	0.60	0.77	61	0.43
	Typical	30	3.79	0.80			
social self-concept	SPLD	33	3.76	0.75	.58	61	0.55
	Typical	30	3.66	0.65			
Intrinsic motivation	SPLD	33	3.94	0.66	-1.65	61	0.10
	Typical	30	4.21	0.63			
Extrinsic motivation	SPLD	33	3.78	0.76	-1.24	61	0.21
	Typical	30	4.02	0.72			

P value: *: 0.05 / **: 0.01

Table 30: Summary of the self-concept questionnaire between bilingual SpLD and bilingual typical

Variables	Criteria	Significant differences
English reading self-concept	attainment/ strong attainment/ Weak	Typical > SPLD; P < 0.5
English spelling self-concept	Reasoning/ Weak attainment/ strong attainment/ weak	Typical > SPLD; P < 0.5

4.5.4 Comparison (4): The comparison of the self- concept between monolingual typical vs. bilingual typical

The fourth comparison was made among the pupils who were monolingual typical and bilingual typical. The results obtained from the two groups showed significant differences in some areas of literacy. Table 31, 32, 33 and 34 show that these differences are in certain areas while table 17 summarises all the results where there were significant differences between the two groups. The rest of the scales showed no significant differences in any criteria and these were: Arabic spelling self-concept, English reading self-concept, English handwriting self-concept, English spelling self-concept, mathematics self-concept, general school self-concept, athletic self-concept, social self-concept.

In table 35 I summarised all the significant differences that obtain from the comparison between the

Table 31: Monolingual Typical vs. Bilingual Typical (Reasoning/ Strong)

	Groups	N	Mean	Std. Deviation	T. Test	DF	Probability
Math self- concept	Mono	36	4.02	0.77	1.30	70	0.19
	Bil.	36	3.77	0.87			
Arabic reading self-concept	Mono	36	4.26	0.70	1.65	70	0.10
	Bil.	36	3.96	0.78			
Arabic spelling self-concept	Mono	36	4.01	0.85	0.89	70	0.37
	Bil.	36	3.82	0.89			
Arabic handwriting self-concept	Mono	36	4.32	0.56	2.22	70	0.03*
	Bil.	36	3.93	0.87			
General school self-concept	Mono	36	4.04	0.82	0.95	70	0.34
	Bil.	36	3.85	0.82			
Athletic self-concept	Mono	36	3.96	0.54	0.80	70	0.42
	Bil.	36	3.83	0.79			
social self-concept	Mono	36	3.85	0.71	1.07	70	0.28
	Bil.	36	3.68	0.67			

P value: *: 0.05 / **: 0.01

Table 32: Monolingual Typical vs. Bilingual Typical (Reasoning/ Weak)

	Groups	N	Mean	Std. Deviation	T. Value	DF	probability
Math self-concept	Mono	28	4.10	0.80	1.43	60	0.15
	Bil.	34	3.79	0.89			
Arabic reading self-concept	Mono	28	4.44	0.53	2.59	60	0.01**
	Bil.	34	3.98	0.79			
Arabic spelling self-concept	Mono	28	4.26	0.67	1.96	60	0.05*
	Bil.	34	3.86	0.90			
Arabic handwriting self-concept	Mono	28	4.42	0.54	2.57	60	0.01**
	Bil.	34	3.94	0.86			
General school self-concept	Mono	28	4.22	0.74	1.58	60	0.11
	Bil.	34	3.90	0.81			
Athletic self-concept	Mono	28	3.98	0.55	1.02	60	0.30
	Bil.	34	3.80	0.80			
social self-concept	Mono	28	3.79	0.67	0.47	60	0.63
	Bil.	34	3.71	0.67			

P value: *: 0.05 / **: 0.01

Table 33: Monolingual Typical vs. Bilingual Typical (Attainment/ Strong)

	Groups	N	Mean	Std. Deviation	T. Test	DF	Probability
Math self-concept	Mono	36	4.02	0 .77	0.45	64	0.65
	Bil.	30	3.93	0.84			
Arabic reading self-concept	Mono	36	4.26	0.70	1.79	64	0.07
	Bil.	30	3.93	0.77			
Arabic spelling self-concept	Mono	36	4.01	0.85	0.66	64	0.50
	Bil.	30	3.86	0.93			
Arabic handwriting self-concept	Mono	36	4.32	0.56	2.31	64	0.02*
	Bil.	30	3.90	0.89			
General school self-concept	Mono	36	4.04	0.82	0.59	64	0.55
	Bil.	30	3.92	0.79			
Athletic self-concept	Mono	36	3.96	0.54	1.01	64	0.31
	Bil.	30	3.79	0.80			
social self-concept	Mono	36	3.85	0.71	1.14	64	0.25
	Bil.	30	3.66	0.65			

P value: *: 0.05 / **: 0.01

Comparison 34: Monolingual Typical vs. Bilingual Typical (attainment/ Weak)

	Groups	N	Mean	Std. Deviation	T. Value	DF	probability
Math self-concept	Mono	25	4.10	0.84	0.84	49	0.40
	Bil.	26	3.90	0.84			
Arabic reading self-concept	Mono	25	4.50	0.53	3.30	49	0.00**
	Bil.	26	3.88	0.77			
Arabic spelling self-concept	Mono	25	4.32	0.69	1.70	49	0.09
	Bil.	26	3.91	0.96			
Arabic handwriting self-concept	Mono	25	4.40	0.56	2.53	49	0.01**
	Bil.	26	3.86	0.91			
General school self-concept	Mono	25	4.23	0.76	1.05	49	0.29
	Bil.	26	4.00	0.81			
Athletic self-concept	Mono	25	4.00	0.55	1.41	49	0.16
	Bil.	26	3.72	0.83			
social self-concept	Mono	25	3.83	0.60	0.74	49	0.45
	Bil.	26	3.70	0.67			

P value: *: 0.05 / **: 0.01

Table 35: Summary The comparison of the self- concept between monolingual typical vs. bilingual typical

Variables	Criteria	Significant differences
Arabic reading self-concept	Reasoning/ Weak	Mon>Bilingual ; P < 0.1
Arabic handwriting self-concept	Reasoning/ Strong Reasoning/ Weak Attainment/Strong	Mon>Bilingual / P < 0.5 - 0.1
Arabic spelling self-concept	Reasoning/ Weak	Mon>Bilingual ; P < 0.5

4.6 Analysis of the intrinsic/extrinsic questionnaire

Due to the fact that the intrinsic/extrinsic questionnaire is targeted only for the bilingual pupils, the two groups were compared in this study are the bilingual pupils who have SpLD and the bilingual pupils who are typical literacy levels. I posed a subsidiary question about the differences between the two groups in terms of the intrinsic and extrinsic foreign language motivation in the research question section (1.4.2) above. The results outlined in table 36 and 37 show no significant differences between the two groups according to the reasoning strong and weak model, as none of the bilingual pupils had SpLD in the attainment model a comparison cannot be made regarding foreign language motivation.

Table 36: Bilingual SPLD vs. Bilingual Typical (Reasoning/ Strong)

	Groups	N	Mean	Std. Deviation	T. Test	DF	Probability
Intrinsic motivation	SPLD	27	3.97	0.61	-1.03	61	0.30
	Typical	36	4.14	0.69			
Extrinsic motivation	SPLD	27	3.87	0.72	-0.26	61	0.79
	Typical	36	3.92	0.77			

P value: *: 0.05 / **: 0.01

Table 37: Bilingual SpLD vs. bilingual typical (Reasoning/ Weak)

	Groups	N	Mean	Std. Deviation	T. Test	DF	Probability
Intrinsic motivation	SPLD	29	4.02	0.61	-0.56	61	0.57
	Typical	34	4.11	0.70			
Extrinsic motivation	SPLD	29	3.89	0.73	-0.02	61	0.97
	Typical	34	3.90	0.77			

P value: *: 0.05 / **: 0.01

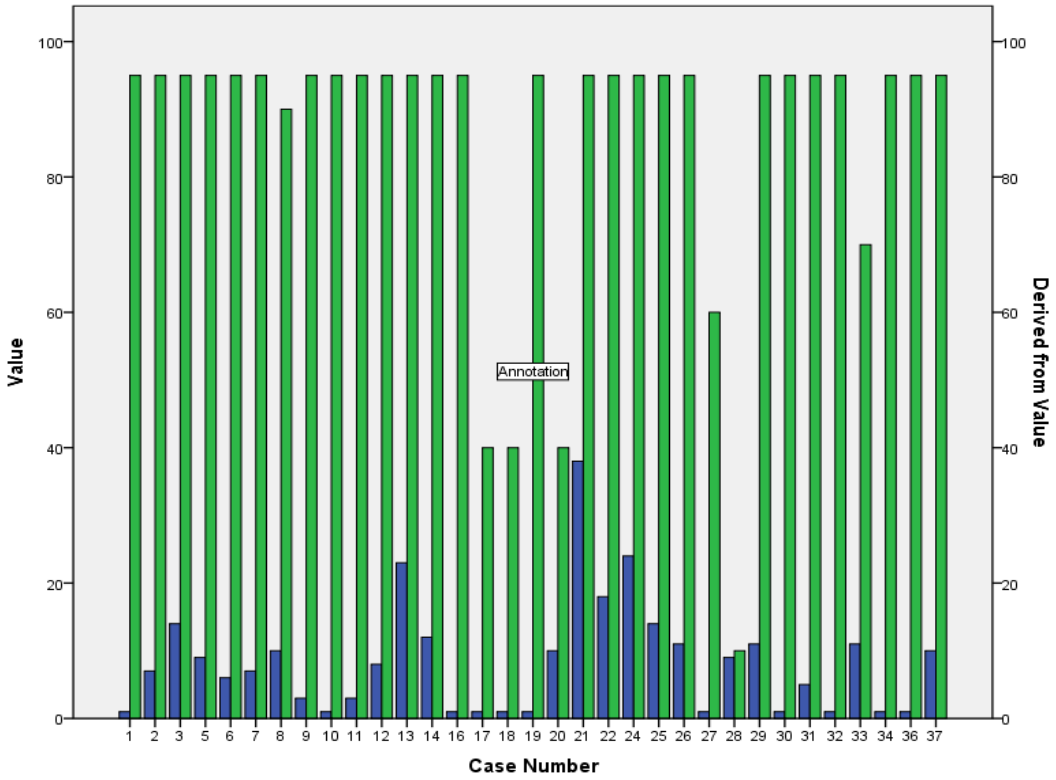
4.7 Phonological differences between the bilingual SpLD groups

Due to the fact that this study has the potential to ask more questions about other learning difficulties among the bilingual pupils, I asked another subsidiary research question about the differences in terms of phonological awareness between English and Arabic among the bilingual pupils with SpLD in terms of non-word. The number of pupils who had SpLD in English and Arabic at the same time were n= 33. The results obtained from the assessment tests using the non-sense word test showed significant differences between the Arabic and the English phonology among the pupils who were tested using a parallel test called (LASS-8-11). Table 38 below explains the comparison between the two groups while figure 1 shows the comparison between Arabic and English non-word according to each pupil.

Table 38: The comparison between the English and the Arabic differences in terms of non-word reading

	Mean	N	Std. Deviation	Std. Error mean
English non-sense word	8.30	33	8.312	1.447
Arabic non-sense word	85.45	33	21.772	3.790

Figure 1: The phonological differences between Arabic and English non-word among each pupil



Blue: English non-word Green: Arabic non-word

4.8 The existence of SpLD among bilingual pupils according to LASS (8-11) English and Arabic

The last subsidiary research question I asked in this study was whether the pupils who have SpLD in Arabic always have SpLD in English and vice versa, or whether pupils who have SpLD in one language only - either in English or in Arabic - are possibly not affected in terms of language/literacy attainment in the other language. The results obtained from the two assessment tests LASS (8-11) in English and Arabic - showed that none of the bilingual pupils had SpLD in Arabic only, few had SpLD in English and Arabic at the same time, and the majority had SpLD in English only. Table 9 below outlined the numbers in more detail and shows the results according to each model of identification and the weak and strong version of it. As mentioned above the initial number of pupils who were identified were n= 55 for the monolingual and n=66 for the bilingual yet not all the pupils had SpLD.

Table 39: Distribution of the pupils according to their literacy difficulties in Arabic and English

	Model's version	Monolingual pupils (n=55)	Bilingual pupils (n= 66)
The Discrepancy-attainment model	Strong version	NO one had SpLD	- 25 had SpLD in English ONLY with no difficulties in Arabic - Only 2 pupils had SpLD in English AND Arabic at the same time - The rest of pupils had NO SpLD at all
	Weak version	8 only had SpLD in Arabic	- 16 pupils had SpLD in English ONLY - NO difficulties in Arabic. - 13 pupils have SpLD in English AND Arabic together - The rest showed no SpLD
The attainment Model	Strong version	No one had SpLD	- 29 pupils have SpLD in English ONLY - 5 pupils have SpLD in English AND Arabic together - The rest showed no SpLD
	Weak version	11 had SpLD in Arabic	- 18 pupils had SpLD in English ONLY with no difficulties in Arabic. - 19 pupils had SpLD in English AND Arabic together

4.9 Conclusion

The quantitative analysis in this chapter focused on four questions, one main research question with four comparisons made, and another three subsidiary research questions. To sum up the results across the main question: There were no significant differences between the monolingual and bilingual (Arabic – English) SpLD pupils in terms of the dimension of the self-concept however, there were a few differences between the SpLD groups (Bil-Mono) and the typical literacy level groups (Bil-Mono) in terms of the dimension of the self-concept. There were also no significant differences regarding the bilingual (Arabic-English) SpLD group and the bilingual typical literacy level group in terms of the intrinsic and extrinsic motivation to foreign language learning. Regarding the differences between the phonological awareness between Arabic and English, there were significant differences among all the bilingual pupils as each pupil had a higher score in Arabic non-word reading in comparison to a low score in the English non-word reading. Concerning the existence of SpLD among bilingual (Arabic-English) pupils, there were two main results, the first one showed that the pupils either had SpLD in English and Arabic at the same time or they had SpLD

in English only, and none of the pupils had SpLD in Arabic only. These findings were according to the strong and the weak versions of the attainment and discrepancy model of SpLD identification.

Chapter 5: Phase two: case study analysis

5.1 Introduction

Phase two of this study involved data collection from 6 case studies. Eighteen interviews were carried out in total with 6 pupils and their English and Arabic teachers. The case studies in phase 2 were chosen to meet the research questions and the hypothesis that I drew earlier in the methodology chapter and resulted in having pupils who had specific literacy difficulties (SpLD) in both English and Arabic, or in Arabic only

This chapter provided an analysis of each individual case study in order to combine them later in a cross-case analysis to identify the deductive and inductive understanding of the case studies. Each case study was first introduced by personal details and a general background of their learning and behavioural experiences. This information was taken from either the school counsellor or in some cases from their English or Arabic teacher or both of them. After that, a summary tables were provided according to their results in the self-concept questionnaire and the foreign language learning motivation scale followed by analysis to these results in combination with their teacher's opinions. The questionnaire and the scale mentioned were designed to measure all facets of the self-concept from the general to a more specific and social facet of the self-concept along with the pupils motivation for learning a foreign language despite their Arabic literacy difficulties (details about these measuring scales were discussed in the quantitative chapter 4 above).

5.2 Case study: 1

Student's name: Majd **Age:** 10

Grade: 5 **Gender:** male

5.1 personal details

Majd was a 10-year-old boy at the time of the interview. Majd's mother tongue is Arabic and he used it on a daily basis. Majd's parents also speak with him with their own colloquial language which is different from Arabic. He understands it when spoken by his parents, but does not use it himself either at home or school. At the age of 4 Majd started attending a nursery at an international school where English is considered the most dominant language of learning. Most teachers, excluding the Arabic teacher, are from various European countries which mean he has no opportunity to speak Arabic with most of his teachers. As Majd got older, he started to develop difficulties in most subjects including English, and he failed to keep up with his peers. At this point Majd's parents decided to move him to another school where he can be less stressed about English. The new school, where I first met him, is a private school and the majority of the teachers are native Arabic including many English teachers. Although I met Majd around the mid-term, his peers and teachers treated him as a new student.

5.2 Background information

Majd's overall attainment in school is considered below average for his class in all subjects; and particularly in literacy in English and Arabic by his teachers. Although Majd was not identified formally as having specific literacy difficulties (SpLD), his teachers acknowledged the fact the he needed extra help with his learning. Majd also had a propensity to be disruptive in the classroom and was persistently reported for his misbehavior and failure to do any homework. He was messy when it came to his belonging, but he was also very sensitive and tearful when his teachers pointed out his failures and reprimanded him for his misbehavior.

5.3 Identification methods

According to Majd's learning background, he was referred to me to take part in this study. Due to the fact that Majd is a bilingual (Arabic-English) learner I administered (LASS 8-11) in both languages. Although the results varied from one language to another, Majd showed specific literacy difficulties in both Arabic and English. Majd's (LASS) results are shown in the table 40 below. The discrepancy results are calculated between the reasoning score of centile 33%; Z score (-0.439) and each other test mentioned below.

Table 40: Majd's scores on the LASS Arabic and English test

Area of measurement	**Test discerption**	**Centile score**	**Z score**	**Z score difference**	**Discrep-ancy**
Reasoning	Non-verbal intelligence	33%	-0.439		
English single word reading	Reading individual words out of context	1%	-2.324	1.9	-p<0.001
English spelling	Spelling individual words that are spoken by the computer	1%	-2.324	1.9	-p<0.001
Auditory memory	digit span	5%	-1.644	1.20	-p<0.01
Visual memory	immediate recall of objects and their spatial positions	8%	-1.405	0.96	-p<0.05
Segmentation	segmentation and deletion of syllables and phonemes in real words	1%	-2.324	1.88	-p<0.001
English non-word	Reading individual non-words	7%	-1.475	1.0	-p<0.01
Arabic sentence reading	Identifying the missing word from a choice of five alternatives.	30%	-0.524	0.08	-p<0.05
Arabic spelling	Spelling individual words that are spoken by the computer	10%	-1.281	0.84	-p<0.05
Arabic non-word	Reading individual non-words	95%	1.644	2.08	+p<0.001

To analyse Majd's results I have relied on two models of SpLD, as discussed in chapter 2 above; one is the attainment/ discrepancy (strong and weak) and the second is the attainment lowest 10% (strong and weak). As regards English, in

compliance with the strong version of the discrepancy model Majd's results showed that his word reading, spelling, auditory memory, visual memory, segmentation and non-word were all significantly below his reasoning score (see Table 1 for details). With regard to the strong version of the attainment model, Majd was scoring in the lowest 10% for single word reading, spelling, memory and phonological tests. In the Arabic tests Majd was also considered to have specific literacy difficulties. According to the strong version of the discrepancy theory, Majd's scores in sentence reading, spelling, auditory memory, and visual memory are all significantly below reasoning. Regarding the attainment theory Majd has also showed SpLD yet in the weak version only, because he only scored in spelling, auditory memory and visual memory in the lowest. Table 41 below is a summary of the nature of SpLD in each language and the comparison between them.

Table 41: Majd's summary of the nature of the SpLD in English and Arabic

	Discrepancy model	**Low attainment model**
English	Strong	Strong
Arabic	Strong	Weak

5.4 Qualitative analysis of Majd's interview

5.4.1 General self-concept (how he perceives himself as a person)

The first thing that we started to talk about during the interview with Majd is the way he perceives himself as a person, regardless of his learning difficulties. Majd seemed to enjoy these kinds of questions about himself as if he had finally got an opportunity to express himself. Majd told me many stories about his achievements and the way he sees himself in comparison to his class mates. *"I do feel equal to my classmates, if not better than others".* Although I tried hard not to ask at this stage of the interview any questions related to his school achievement, Majd seems to see himself only as a learner and he tended to compare himself with his peers most of the time.

Majd's confidence was also reflected in his general self-concept questionnaire as he scored higher than the bilingual SpLD and the bilingual typical pupils (see table 42 below for more details). His score relative to the rating scale was also way above the mid-point. In general, Majd identified himself in a very high profile, and his Arabic teacher seemed to agree with him *(I cannot say how Majd sees*

himself really, but from the way he usually answered me back I can tell that he is very confident which is not always good for him in my opinion". His English teacher however disagreed with both of them. *"He is so sensitive and tearful, he always wanted to be like his classmates, and when he cannot keep up with them in any task he started crying".*

Table 42: Majd's scores in the general self-concept questionnaire

Self-concept questionnaire	N	General self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Majd	1	4.5		75
Bilingual SpLD	27	3.74	0.75	
Bilingual typical	36	4.00	0.82	

Arabic literacy self-concept

5.4.2 Arabic reading self-concept

Majd perceived himself positively in Arabic reading. Throughout the interview Majd seemed very relaxed when he talked about the Arabic language, saying "*I like Arabic; it is not difficult at all, I can read anything easily in Arabic" This* was in line with his self-concept questionnaire results, in which he scored a higher score in Arabic reading self-concept than the mean score for all bilingual SpLD pupils in the study. He had the same level as typical bilingual pupils (see the table below for more details). His score on the rating scale was above the mid-point as well. Overall, this shows a positive pattern of Arabic reading self- concept. This was consistent with his Arabic teacher's view that he was good in Arabic, when I asked her about Majd's literacy ability. However, she contradicted herself when I asked her about his reading achievement. She asserted that he is *"Okay"* but she was not sure, and then she said clearly: *"To be honest with you, when he reads I do not understand him at all, he is very slow in reading but he is also not that bad".* This suggests that his teacher did not share Majd's relatively positive views about his Arabic reading abilities.

Table 43: Majd's scores in the Arabic reading self-concept questionnaire

Self-concept questionnaire	N	Arabic reading self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Majd	1	3.9		72.5
Bilingual SpLD	27	3.7	0.77	
Bilingual typical	36	3.9	0.78	

5.4.3 Arabic spelling self-concept

Majd seems to have a very interesting way of expressing himself when it comes to his Arabic achievement. His answers showed he was confident when I asked him about the Arabic language. Majd gave me the impression that I needed to stop asking him about the Arabic language because he is that good and his answers always had the same positivity. "I *can truly spell anything in Arabic as easy as that"*. Majd had a higher score in Arabic spelling self-concept than the mean score of the bilingual SpLD and the bilingual typical (see the table below for more details). His score on the rating scale as well was way above the mid-point, which means he has a very consistent pattern of Arabic spelling self-concept. However, his Arabic teacher seems to completely disagree with him as she was complaining throughout the interview about his low scores - always zeroes in most spelling exams. *"what can I say, when I read his writing I can barely understand anything, he always adds letters and removes letters in any word in which you cannot figure what he meant. Due to this it is impossible for me to identify his mistakes specifically".* In conclusion Majd's Arabic teacher did not have the same opinion toward his Arabic spelling achievement as himself.

Table 44: Majd's scores in the Arabic spelling self-concept questionnaire

Self-concept questionnaire	N	Spelling self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Majd	1	4.50		88.8
Bilingual SpLD	27	3.73	0.79	
Bilingual typical	36	3.82	0.89	

5.4.4 Arabic handwriting

Although Majd was very positive about his Arabic reading and spelling self-concept, he has a completely different perception when it comes to Arabic Handwriting. I understood from Majd that they did not have a class for handwriting and neither did they get any feedback from the teacher. Despite that, Majd was not so sure how he sees himself in this subject but he was honest enough to say that his handwriting was not very attractive to look at. *"My handwriting is a mess".* The way Majd perceives himself reflects his score in the Arabic spelling self-concept questionnaire. He was much below the mean score of the bilingual pupils with SpLD and the bilingual typical and his score on the rating scale was significantly below the mid-point (See the table below for more details). This time,

Majd and his teachers shared the same negative views about Arabic handwriting as both agreed that he has weak handwriting.

Table 45: Majd's scores in the Arabic handwriting self-concept questionnaire

Self-concept questionnaire	N	Arabic handwriting self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Majd	1	1.67		16.75
Bilingual SpLD	27	3.72	0.93	
Bilingual typical	36	3.93	0.87	

English literacy self-concept

5.4.5 English reading self-concept

Majd believed that his English was as good as his Arabic. According to Majd *"I am also good in English; I used to study English all the time in the other school"*. Although Majd had a positive opinion about his English reading, he however had a lower score in the English reading self-concept questionnaire. Majd score was also lower than the mean for the bilingual SpLD and bilingual typical groups. His score on the rating scale was just in the mid-point. (See the table 6 below for more details). Similarly, both the Arabic and English teacher seemed to have concerns about Majd's literacy ability. Throughout the interview she was so frustrated and every time she wanted to give an example it was as if she had run out of words. After each question she would start by saying *"zero"* and then she said "Quite *simply he cannot read at all, even with easy words, he lacks the basic knowledge about reading".* Although Majd was not very confident when he talked about English he still showed positivity toward his English reading ability.

Table 46: Majd's scores in the English reading self-concept questionnaire

Self-concept questionnaire	N	English reading self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Majd	1	3.10		52.5
Bilingual SpLD	27	3.74	0.75	
Bilingual typical	36	4.0	0.82	

5.4.6 English spelling self-concept

Although Majd has admitted that English spelling is rather difficult, he said *"I basically can spell English words; I practise a lot at home"*. As for the English

spelling self-concept questionnaire, Majd scored below the mean of his bilingual SpLD and typical peers as well as having a score below the mid-point in the rating scale (see the table 47 below for more details). During the interview with his English teacher, I tried to connect her with the fact that Majd has a high self-perception about his English. She said "if he truly believes that, he must be deluded". Throughout the whole term, the best score he got was 1/10. Although Majd's English teacher seemed rather displeased with his achievement, she mentioned what happened on mother's day when she asked each student to write a letter in English to their mums. She said: *"Majd bursts into tears, he asked me to translate his Arabic sentences into English so he can show his mum".* Overall, I can see that Majd has some difficulty with the English language which appeared clearly in his scores.

Table 47: Majd's scores in the English spelling self-concept questionnaire

Self-concept questionnaire	N	English spelling self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Majd	1	2.67		41.75
Bilingual SpLD	27	3.73	1.04	
Bilingual typical	36	4.17	0.88	

5.4.7 English handwriting self-concept

Despite the fact that Majd considered his Arabic writing to be a "mess", he had a completely opposite perception about his English handwriting. He had the highest score in English handwriting self-concept; higher than the mean of the bilingual SpLD and the bilingual typical. Unsurprisingly he scored very highly in the rating scale (see the table 8 below for more details). Majd's English teacher was not sure how to answer the question about his handwriting as she believed that there is no point in answering it as he can barely write his name correctly. Again Majd's English teachers did not share his positive view about his handwriting.

Table 48: Majd's scores in the English handwriting self-concept questionnaire

Self-concept questionnaire	N	English handwriting self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Majd	1	5.00		100
Bilingual SpLD	27	3.91	0.97	
Bilingual typical	36	4.04	1.03	

5.4.8 Math self-concept

I did not have a chance to interview Majd's math teacher because my main focus in this study was literacy, but from looking at his math grades he is an average student in his class. Although, Majd enjoyed his math's classes, he declared that things got tougher when the English language was involved. Majd's score on the rating scale was above the mid-point and his scores in the self-concept questionnaire is quite close to the mean of his peers the bilingual SpLD-and the bilingual typical (See table 49 below for more details).

Table 49: Majd's scores in Math subject self-concept questionnaire

Self-concept questionnaire	N	Math self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Majd	1	3.50		62.5
Bilingual SpLD	27	3.84	0.75	
Bilingual typical	36	3.77	0.87	

5.4.9 School subject self-concept

According to the school subject self-concept, Majd perceived himself positively in school subjects such as art, science and religious studies. Majd said *"sometimes I find it difficult to recall Quran (the holy book in Islam) but other than that I am pretty good at it and I am good at the experiments in the science classes".* Because I only interviewed the language teachers, I had to ask the school counsellor who followed Majd's case for a long time about Majd's school subject's achievements. The counselor agreed with Majd when it came to religious studies and arts, but totally disagreed with him in science and he addressed his low grades. Majd positive view regarding his school subjects was slightly but not totally consistence with his scores in the school subject self-concept questionnaire. His score was also higher than the mean score of the bilingual SpLD pupils and his score in the rating scale was above the mid-point (see table 50 below for details).

Table 50: Majd's scores in the school subject self-concept questionnaire

Self-concept questionnaire	N	School subject self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Majd	1	3.83		70.75
Bilingual SpLD	27	3.68	0.63	
Bilingual typical	36	3.85	0.82	

5.4.10 Athletic self-concept

When the subject of sport was raised, Majd did not hesitate to say *"I am professional, especially in football, and Barcelona is the best team"*. Despite Majd's enthusiasm, he did not score the highest in the athletic self-concept questionnaire, because none of the questions are football related and they are more about his sports abilities which he seems not to possess. But if we compare his scores in the SCQ we can see that he is higher than the mean of the bilingual typical and very close to the bilingual SpLD. (see table 51 below for more details). Overall, Majd and his peers seems to love certain sports but they are not confident about how hard working they are.

Table 51: Majd's scores in the athletic self-concept questionnaire

Self-concept questionnaire	N	athletic self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Majd	1	3.89		72.25
Bilingual SpLD	27	3.91	0.58	
Bilingual typical	36	3.83	0.79	

5.4.11 social self-concept

In terms of social relationships with friends, Majd described himself as "*normal*" he seemed very positive and relaxed about his relationships with his friends. Although his classmates, according to the school counsellor, considered him an outsider as a new student, Majd's positive self-concept was not reflected completely in his score in the social self-concept questionnaire. From the way he described his friendship I expected him to have a higher score, but he had a score which is lower than the mean score of the bilingual pupils with SpLD & typical (See table 12 below for more details). Majd's Arabic teacher saw him as a normal child according to his relationships with friends, his English teacher however,

said: *"the problem with Majd is he does not know how to make friends. I have never seen him sitting with his friends; always alone".* Majd's vision of himself is consistence with his score in the rating scale which is just above the mid-point (see table 52 below for details).

Table 52: Majd's scores in the social subject self-concept questionnaire

Self-concept questionnaire	N	social self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Majd	1	3.33		58.25
Bilingual SpLD	27	3.76	0.74	
Bilingual typical	36	3.68	0.67	

5.4.12. Foreign language intrinsic motivation

Throughout the interview with Majd, he focused largely on the importance of learning English in Oman, but he rarely related this to his own satisfaction or the enjoyment he experiences while learning English. He however had a higher score in the language learning orientations scale for intrinsic motivation in comparison to his peers who are bilingual SpLD and bilingual typical (see table 53 below for more details). His score relative to the rating scale is also way above the mid-point. Hence it could be said that Majd takes pleasure in learning English for his own satisfaction, and the fact that he did not expose this feeling to me is more likely because he was very taken with the fact that learning English is important for any Omani resident because Oman is becoming more multicultural as a country.

Table 53: Majd's scores in the Language learning orientations scale/ intrinsic motivation

Language learning orientations scale	N	Intrinsic motivation ($\bar{x}$)	Standard deviation	% score on rating scale
Majd	1	4.67		91.75
Bilingual SpLD	27	3.97	0.61	
Bilingual typical	36	4.14	0.69	

5.4.13. Foreign language extrinsic motivation

Due to the fact that Majd has focused a great deal on the importance of learning English in Oman, he spent plenty of time during the interview telling personal stories about shopping with his mum and how many times they needed to speak English with the salesmen who are non-native Arabic speaker. Majd stressed the fact that you need to speak English in your own country despite the fact that our

official language is Arabic and most importantly he said *'my mum cares a lot about my English achievement, even over Arabic'.* When I asked Majd about why he mostly liked to learn English he stated that '*if I want to study abroad for instance, I need to have a decent standard of English and if I want to travel with my family for a holiday, everything is written in English'.* Majd also told me that his parents paid a lot of money when he was at the international school and they still do now, so he can have a good standard of English. Because of this he said; *"I want to improve my English to make them happy, plus I feel so embarrassed in the classroom when I do so many mistakes while reading".* Although Majd has related learning English to many extrinsic reasons, he, on the other hand, had a low score in the Language learning orientations scale the extrinsic motivation which is the opposite to what he did in the intrinsic motivation scale. His score in the rating score is at the mid-point (see table 54 below for more details). From the interview I can tell that Majd related his learning English to external reasons but he did not clearly show that in the motivation scale.

Table 54: Majd's scores in the Language learning orientations scale extrinsic motivation

Language learning orientations scale	**N**	**Extrinsic motivation ($\bar{x}$)**	**Standard deviation**	**% score on rating scale**
Majd	1	3.00		50%
Bilingual SpLD	27	3.87	0.72	
Bilingual typical	36	3.92	0.77	

5.5 Conclusion

From the interview with Majd's Arabic and English teachers, both of them presumed that he had specific literacy difficulties, even though he was not officially assessed. After administrating (LASS 8-11) tests in both Arabic and English; Majd showed a SpLD according to the attainment discrepancy model and the attainment lowest 10% model. Majd was also interviewed and was given a self-concept questionnaire and a language learning motivation scale.

The results taken from all the methods used in this case study showed a variety of opinions from Majd and his teachers. Starting off with general self-concept, Majd had a high general self-concept in both the interview and the questionnaire which was agreed with by his Arabic teacher; whereas his English teacher apparently observed him from one narrow angle; as a student struggling with

English. Moving on to the Arabic literacy, Majd had a consistently high self-concept in both reading and writing within the interview and the questionnaire. The Arabic teacher however seemed to agree with who he perceived himself to some extent and then contradicted herself and described him as a weak reader. This might reflect that as his teacher focused more on his literacy abilities she evaluated him differently. As for Arabic handwriting Majd and his teacher agreed in their low opinion of his abilities within this area of literacy. With regard to English literacy, Majd's English teacher was very consistent in insisting that he was very weak in English reading, spelling and handwriting; whereas, Majd perceived himself in an inconsistent way depending on the area of English. In English handwriting Majd had a high self-concept both in the interview and the questionnaire. But when it came to reading and spelling his opinion changed. Majd admitted twice during the interview that he was improving in both reading and spelling and he appeared to deny his literacy difficulties; as the questionnaire elaborated on the questions, Majd might have found it hard to hide his views and he scored low as a result. Regarding mathematics, Majd had a reasonably high self-concept during the interview, but then he indicated the difficulties that the English language brings to the subject, which is why in my opinion he did not score very highly in the self-concept questionnaire. As regard Majd's athletic, school subject, social relationship Majd was consistently high in both the interview and the questionnaire. The Arabic and the English teacher however showed a discrepancy over Majd's social life as the Arabic teacher agreed with him and she believed that he is a 'normal child' while the English teacher disagreed with him and postulated that he ' does not know how to make friends'.

Finally, when it came to motivation to learning English, Majd was very positive about the fact that he is learning English for his own benefit. His interview and his score on the intrinsic motivation scale demonstrated consistently his positivity. As regards extrinsic motivation for learning English, Majd said that he was learning English to satisfy his parents, but from the low score that he obtained in the extrinsic motivation scale, it appears that he was only learning English for one external reason as he wanted to learn the language for his parent's satisfaction.

Overall Majd and his Arabic and English teacher had different opinions on Majd's literacy and social life. Yet, it seems that Majd had always denied his literacy difficulties which is why his English teacher said, after I told her that Majd perceived himself very highly in literacy, that he *'must be deluded'* and then she

felt she wanted to convince me even more by saying ‘you can also look at his grade from last year. It seemed clear that she wanted to point out that this was not her fault and not due to her teaching style, but rather due to the fact that he has literacy difficulties.

5.3 Case study: 2

Student's name: Rami **Age:** 12

Grade: 6 **Gender:** male

5.1 personal details

Rami was a 12-year-old at the time of the interview. Rami's native language is Arabic and he used it on a daily basis at school and at home. Rami started attending a private bilingual school after nursery, where English and Arabic are taught equally in most classes including maths and science. Rami came from a middle class family and his mum was not very well educated and she could not speak English. His dad worked long hours every day, hence Rami had nobody to help him with his studying while at home. According to his teachers Rami has a speech disorder and attention deficit disorder although has was not identified formally by anyone. Rami started to develop more difficulties every year in other subjects when English became the main element of understanding the subject.

5.2 Back ground information

Rami's overall attainment in all school subjects was way below the class average according to his teachers. But it is more apparent in English language and this explains why his teacher referred him to me to take part in this study. Apart from his learning difficulties, Rami is always disruptive in the classroom and he can rarely concentrate on any activity for long, no matter how easy or difficult it is. Although the school has informed his parents many times about his low achievement especially in English and Arabic, they were unable to help him with his learning difficulties especially as there were no special educational experts at school to direct them. Rami's literacy problem led him to be even more careless and he never did any homework or participated in the classroom.

5.3 Identification methods

Rami's low attainment scores in literacy made him a very good candidate for my research study. Because Rami is a bilingual (Arabic – English) student, I conducted the study (LASS 8-11) in both languages. I used two models to identify Rami's literacy problems; the attainment/discrepancy (strong and weak), and the attainment lowest 10% (strong and weak) which discussed in in chapter 2 above.

As for his English scores, Rami had specific literacy difficulties in terms of the strong attainment/ discrepancy model as his scores in single word reading, spelling, segmentation and non-word were significantly below the reasoning score. In line with the strong attainment model, Rami scored in the lowest 10% in single word reading and spelling. He additionally scored significantly below the reasoning score in segmentation and non-word. In Arabic, there was no discrepancy between Rami's reasoning score and his literacy attainment, he only showed specific literacy difficulties in the strong attainment lowest 10% model, as he scored in the lowest 10% in sentence reading, spelling and his scores in the non-word and segmentation were significantly below the reasoning score (see table 55 below for more details).

Table 55: Rami's scores on the LASS Arabic and English test

Area of measurement	**Test discerption**	**Cent-ile score**	**Z score**	**Z score difference**	***Discrep-ancy**
Reasoning	Non-verbal intelligence	23	-0.738		
English single word reading	Reading individual words out of context	1	-2.324	1.5	-$p < 0.05$
English spelling	Spelling individual words that are spoken by the computer	1	-2.324	1.5	-$p < 0.05$
Auditory memory	digit span	26	-0.643	0.09	not significant
Visual memory	immediate recall of objects and their spatial positions	31	-0.495	0.2	not significant
Segmentation	segmentation and deletion of syllables and phonemes in real words	3	-1.880	1.1	-($p < 0.01$)
English non-word	Reading individual non-words	1	-2.324	1.5	-$p < 0.05$
Arabic sentence reading	Identifying the missing word from a choice of five alternatives.	10	-1.281	0.5	not significant
Arabic spelling	Spelling individual words that are spoken by the computer	10	-1.281	0.5	not significant
Arabic non-word	Reading individual non-words	95	1.644	2.3	$p < +(0.001)$

*The discrepancy results are calculated between the reasoning score of centile 23%; Z score (-0.738) and each other test mentioned below.

To sum up Rami's identification results in Arabic and English, see table 56below to summarise the nature of SpLD in each language and the comparison made between them.

Table 56: summary of the nature of the SpLD in English and Arabic

	Discrepancy model	Low attainment model
English	strong	Strong
Arabic	No SpLD	Strong

5.4 Qualitative analysis of Rami's interview

5.4.1 General self-concept (how he perceives himself as a person)

When I started to find out more about the way Rami perceived himself as a person and as a learner, there was some confusion about how he saw himself. On one hand, Rami was positive about the way he acts as he proudly said *"I do not say bad things especially about the girls, I am a good person I also do not get myself involved in trouble with friends "* but he was also very muddled particularly when he started to go through his learning achievement. Rami said many times that he felt down when he was criticised by his teachers, especially when he declared that he sincerely believed that he has a certain problem with memorising and concentration: "*I am not that bad, my teachers always blamed me for forgetting things quickly, I feel lower than my friends"*. To draw an analogy between his statements and what his teachers thinks of him, I interviewed both the Arabic and the English teacher, both teachers agreed that he is very careless and he did not worry about things, despite the fact that his parents are very eager to help him but he is not that interested. His English teacher said *"he speaks out loud about his learning problems and he never cares*". Rami's mean general self-concept score was slightly below the mean score of the bilingual SpLD and bilingual typical mean, yet not low relative to the scale. (See table 57 below for details). He is also above the mid-point scale of the rating scale which implies a positive way of perceiving himself. Overall Rami had a mixed general perception of himself and he did not share this vision with both teachers who identified his varied difficulties.

Table 57: Rami's scores in the general self-concept questionnaire

Self-concept questionnaire	N	general self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Rami	1	3.60		65
Bilingual SpLD	27	3.74	0.75	
Bilingual typical	36	4.00	0.82	

Arabic literacy self-concept

5.4.2 Arabic reading self-concept

During the interview with Rami, he was slightly uncomfortable when he talked about his Arabic reading achievement; he definitely felt the pressure of the difficulties of the Arabic language. Rami summarise his difficulties: *"I think I need extra help so I can read better in the future*". Surprisingly Rami had a very high score in the Arabic reading self-concept questionnaire which was also higher than the mean score of the bilingual SpLD and the bilingual typical. His score in the rating scale was also way above the mid-point. (See table 58 below for more details). Rami's Arabic teacher on the other hand did not agree with him about his achievement as she saw him as an average student in reading, and she believed that he can be much better if he worked harder. It is hard to evaluate how Rami perceived himself in the Arabic reading self-concept when he voiced different opinions between the interview and the questionnaire. Perhaps Rami used the questionnaire rating to project his wishes for high reading attainment.

Table 58: Rami's scores in the Arabic reading self-concept questionnaire

Self-concept questionnaire	N	Arabic reading self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Rami	1	4.50		87.5
Bilingual SpLD	27	3.7	0.77	
Bilingual typical	36	3.9	0.78	

5.4.3 Arabic spelling self-concept

As for the Arabic spelling self-concept, Rami perceived himself rather positively although he found the unprepared dictation very difficult. He clearly said *"writing is not easy for me, I am not that bad though, I can write things yet I feel better if I am asked to prepare it*". As stated by his Arabic teacher *"Rami has a serious problem with writing, he makes lots of mistakes in each sentence"*. This time Rami's results in the Arabic spelling self-concept questionnaire is in line with the way he expresses himself. He had a high score which is also higher than the bilingual SpLD and the bilingual typical. He also scored high in the rating scale.

(See table 59 below for more details). This also suggested that Rami had high aspirations for himself regarding Arabic spelling as he perceived himself positively despite his teacher's negative opinion toward his spelling skills.

Table 59: Rami's scores in the Arabic spelling self-concept questionnaire

Self-concept questionnaire	N	Spelling self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Rami	1	4.17		79.25
Bilingual SpLD	27	3.73	0.79	
Bilingual typical	36	3.82	0.89	

5.4.4 Arabic handwriting

Rami and his teacher were not interested in responding to the question about Arabic handwriting. According to Rami his handwriting is *"okay"* and although I tried to ask more about this area of achievement he seemed to always have the same response. Rami's teacher also said in the interview "If *I am honest with you, I cannot remember the last time he wrote a complete paragraph so I can evaluate his writing*". The way both Rami and his teacher reacted to these questions showed that the handwriting skills is not important for some one who struggles with literacy attainment, thus both saw it as a less important thing to worry about. Rami on the other hand had a very high score on the Arabic handwriting self-concept questionnaire, and again it was higher than his peers. (See table 5 below for more details). Rami seemed to have the same high expectations of himself in all subjects, as he always scored himself high in the questionnaire despite his opinion of himself that moved between high to average according to the interview.

Table 60: Rami's scores in the Arabic handwriting self-concept questionnaire

Self-concept questionnaire	N	Arabic handwriting self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Rami	1	4.17		79.25%
Bilingual SpLD	27	3.72	0.93	
Bilingual typical	36	3.93	0.87	

English literacy self-concept

5.4.5 English reading self-concept

According to the English reading self-concept, Rami gave the impression that his reading had improved a lot in the last couple of weeks before the interview took place. He said *"I read a lot at home, every day I practise to improve my English,*

my English in good now". His English teacher however did not agree with him at all and she stated clearly that; *"I think he has a real problem with learning, probably he also has low intellectual abilities".* To respond to Rami's teacher regarding his IQ, I mentioned in the identification section (35.3) above, that his reasoning score was one standard deviation below the mean which it is not that low. Rami's score in the reading self-concept questionnaire was allied with his interview and he had a high score. His high score was also higher than the mean score of the bilingual SpLD but not the bilingual typical. (See table below for more details). In general Rami's English teacher appeared to disagree with Rami in the way he saw himself improving.

Table 61: Rami's scores in the English reading self-concept questionnaire

Self-concept questionnaire	N	English reading self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Rami	1	3.80		70
Bilingual SpLD	27	3.74	0.75	
Bilingual typical	36	4.0	0.82	

5.4.6 English spelling self-concept

Although Rami had a fairly high score in the English reading self-concept questionnaire which was also higher than the bilingual SpLD (See table 62 below for more details), he had a very negative view about his English spelling attainment. He admitted his weakness this time saying; *"no matter how I try, it is always difficult to spell words in English"*. Rami's English teacher totally agreed with him and she said: "*he always gets zero in writing. I have also realised recently that Rami started not to come to school when we have a written exam".* Again Rami's results in the self-concept questionnaire were quite high which once more reflected his aspiration to be as good, although he perceived himself negatively in the interview.

Table 62: Rami's scores in the English spelling self-concept questionnaire

Self-concept questionnaire	N	English spelling self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Rami	1	3.83		70.75
Bilingual SpLD	27	3.73	1.04	
Bilingual typical	36	4.17	0.88	

5.4.7 English handwriting self-concept

As for the results of the English handwriting self-concept questionnaire, Rami obtained a top score in the questionnaire which was higher than the mean score of the other two bilingual groups (See table 8 below for details). Rami was not very keen on his English handwriting and there seemed to be a pattern of Rami perceiving himself in quite a contrary way between his interview and the self-concept questionnaire. The English teacher moreover, perceived his handwriting as weak. She said: *"he always writes non-sense words and my mission to decipher them and his handwriting".* Rami's high score in the rating scale brings to the fore even more this time the contradictory views he showed about the way he sees himself.

Table 63: Rami's scores in the English handwriting self-concept questionnaire

Self-concept questionnaire	N	English handwriting self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Rami	1	5.00		100
Bilingual SpLD	27	3.91	0.97	
Bilingual typical	36	4.04	1.03	

5.4.8 Math self-concept

According to Rami, his maths skills are pretty good but he sometimes found it rather difficult due to his English language difficulties. He said: "I *am not that bad in math but sometimes I need to ask my classmates to explain to me a meaning of some words"*. Rami was not so positive about his maths attainment but he was also aware of the main problem that impedes him in fully understanding the lesson. According to my research questions I did not need to interview the maths teacher, but I had a chance to look at his maths grades and I also had a short conversation with the school counsellor. Both resources showed that he was below average compared with his classmates. Rami's results in the maths self-concept questionnaire appears high relative to the scale but not as high as the mean score of the bilingual SpLD and typical groups. (See the table below for more details).

Table 64: Rami's scores in Math subject self-concept questionnaire

Self-concept questionnaire	N	Math self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Rami	1	3.70		67.5
Bilingual SpLD	27	3.84	0.75	
Bilingual typical	36	3.77	0.87	

5.4.9 School subject self-concept

When I started asking Rami about the rest of the school subjects such as science and art, it appeared that he enjoys the subject of religious studies most. Although I have tried to broaden his thinking about the rest of the subjects, he continued to talk about the religious studies in more detail, as if he needed a break from the pressure that he experienced from talking about the English and the Arabic languages throughout the interview. According to the general school subject questionnaire, Rami also had a very high score which this time was slightly more in line with what he said during the interview. His score in the rating scale was also way over the mid-point scale. (See table 65 below for more details).

Table 65: Rami's scores in the school subject self-concept questionnaire

Self-concept questionnaire	N	School subject self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Rami	1	4.33		83.25
Bilingual SpLD	27	3.68	0.63	
Bilingual typical	36	3.85	0.82	

5.4.10 Athletic self-concept

When I first asked Rami about sports, I found him not so keen to talk about this subject, unlike other students who I interviewed. He concluded every question by saying: *"I am just okay, average".* However, Rami's scores in the athletic self-concept questionnaire was high enough to be the top mean score of the bilingual SpLD and typical pupils. Once more, Rami was slightly negative about his achievement during the interview in comparison with his scores in the athletic self-concept questionnaire where his score in the rating score is way above the mid-point (See table 66 for details).

Table 66: Rami's scores in the athletic self-concept questionnaire

Self-concept questionnaire	N	athletic self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Rami	1	4.11		77.75
Bilingual SpLD	27	3.91	0.58	
Bilingual typical	36	3.83	0.79	

5.4.11 Social self-concept

In compliance to the interview with Rami and his Arabic and English teachers about his social relationships. Rami had for the first time a consistent response between what was said in the interview, what his teachers said and his social self-concept questionnaire score. His score was high enough to reflect his positive social relationships with his peers which also topped the mean scores of his peers who are bilingual SpLD and bilingual typical (See table 12 below for details). During the interview, Rami shared his enthusiasm about his relationships with his classmates and other boys around the school. He said: *"I have 5 close friends and we hang up together after school, we have so much fun and we do naughty stuff like most students do".* It was very rare during this interview to see Rami's teacher agree with him, but when it came to his social life they frankly admitted that he is a very popular boy. Although Rami's English teacher stated his popularity, she was not very impressed by it and she believed that there is a dilemma these days among all students as the *"low achieving students are very popular and confident outside the classroom then the more achieving ones*". His Arabic teacher on the other hand was also concerned that he is very close to the older boys who behave in inappropriate ways.

Table 67: Rami's scores in the social subject self-concept questionnaire

Self-concept questionnaire	N	social self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Rami	1	4.56		90.2
Bilingual SpLD	27	3.76	0.74	
Bilingual typical	36	3.68	0.67	

5.4.12. foreign language intrinsic motivation

During the interview with Rami, he stated that he wanted to study English because he did not want to feel ashamed. *"If somebody talks to me in English and I do not understand I feel ashamed".* Rami's had a high score in the language learning orientation scale/ intrinsic motivation; which was also higher than the mean score of the bilingual SpLD and typically (See table 14 below for details). Despite that he did not show any interest in the English language but rather wanted to learn the language to avoid any kind of self-criticism.

Table 68: Rami's scores in the language learning orientation scale/ intrinsic motivation

Language learning orientations scale	**N**	**Intrinsic motivation (x̄)**	**Standard deviation**	**% score on rating scale**
Rami	1	4.83		95.75
Bilingual SpLD	27	3.97	0.61	
Bilingual typical	36	4.14	0.69	

5.4.13. Foreign language extrinsic motivation

When I asked Rami about the reasons for why he likes to continue studying English despite it being difficult for him, he stated clearly that: *"when I finish high school all I need is English and computer".* Although he seemed so taken by this idea, Rami wanted to learn the English language to have a good future and to attend an international university as his parents expected of him. Rami said *"English helps me more than Arabic for the future, if I want to study abroad or at the university*". For the language learning orientation scale, extrinsic motivation; Rami scored above the mid-point and was also lower than the mean score of the bilingual SpLD and the bilingual typical (See table 13 below for more details). In my opinion, Rami's results in the extrinsic motivation might not reflect his satisfaction or interest in English learning, especially that he wanted to please his parents and have a decent grasp of the English language.

Table 69: Rami's scores in the language learning orientation scale/ extrinsic motivation

Language learning orientations scale	**N**	**Extrinsic motivation (x̄)**	**Standard deviation**	**% score on rating scale**
Rami	1	3.50		62.5
Bilingual SpLD	27	3.87	0.72	
Bilingual typical	36	3.92	0.77	

5.5 Conclusion

Rami's case study was a very compelling one. This was explicitly seen in the inconsistency between his interview and the questionnaire. His scores in the questionnaire were always high in comparison to how he responded during the interview. Rami was mostly not wordy and quite uncomfortable during the interview and he always preferred short answers. Regarding the assessment methods, Rami had specific literacy difficulties in both English and Arabic according to the attainment lowest 10% model, he also had a SpLD in the discrepancy model for the English language only.

According to the general self-concept, Rami perceived himself as a good person on one hand and then when he compared himself to his peers he said that he felt lower than others. His score in the general self-concept questionnaire was also in the mid-point which reflected the way he viewed himself. Rami's Arabic and English teachers said that he is a normal person but that he did not care about his studying at all. Regarding the Arabic reading self-concept Rami was inconsistent in his interview and his high score in the questionnaire and his teacher saw him as an average student. Again Rami acquired a high score in the Arabic spelling self-concept but he complained during the interview of how difficult the spelling is for him. His teacher agreed that he has a serious problem with writing. In the Arabic handwriting both Rami and his teacher were not keen on this question as they saw it as a less important thing to worry about, but this did not stop Rami from scoring himself very highly in the questionnaire.

In the English reading self-concept Rami perceived himself rather positively and claimed that he is practising a great deal at home which is quite consistence with his high score in the reading self-concept questionnaire. His English teacher however disagreed with him and believed that he had low intellectual abilities yet his reasoning score was not low as she suggested (see table1 above). Rami's aspiration to have good English appeared again in the spelling self-concept; although he said that no matter how hard he practiced his spelling, he still had difficulties acquiring a good score - but his score in the questionnaire was high. This was not agreed with by his teacher at all as according to her he always gets zeroes in the spelling exams. In the English handwriting Rami had the highest score throughout the questionnaire although he was not very keen on his handwriting during the interview. His teacher also thinks that his handwriting is very challenging and it is difficult to understand it. Surprisingly Rami was not

interested in sport and he believed that he was an average athlete but he also scored himself high in the questionnaire. But when it came to his social life Rami and both his Arabic and English teachers had consistent opinions toward how outgoing and sociable he is. Rami's score in the questionnaire was also very high. Rami had another matter to worry about when it came to maths; he believed that he had good skills in maths but the English language could impede him sometimes from fully understanding. His score in the questionnaire reflected this issue as he scored reasonably above the mid-point. His perception toward the rest of the school subjects is positive and he also had a high score in the questionnaire. Regarding the intrinsic motivation Rami had a very high score in the language learning scale, but he said he wanted to learn English because if he did not understand somebody's English he would feel ashamed. As regard the extrinsic motivation Rami made it clear and said; *"I want to learn English to study abroad".*

Overall Rami was mainly inconsistent in what he said during the interview and what scores he had in the self-concept questionnaire. It appears to me that Rami had high hopes for himself when it came to reading and writing in Arabic and in English because although he knew the difficulties he had with his learning, he still had the aspiration to see himself as a better learner.

5.4 Case study: 3

Student's name: Adam **Age:** 12

Grade: 6 **Gender:** male

5.1 personal details

I met Adam who was a 12-year-old boy at his bilingual (Arabic-English) school in Muscat. Adam's first language was Arabic but his parents liked mixing Arabic and English together which is very common in the Middle East especially amongst educated people. Adam's parents had high expectations of him in terms of education and English language learning. However, Adam was not up to their expectations and he started to develop various literacy and learning problems from an early age. As a result, Adam's parents relocated him from studying at a very high level international school to another less demanding private school which also teaches English in all subjects.

5.2 Back ground information

Adam was always known amongst his teachers as a very careless student. He also never attempted to participate in the classroom or showed any enthusiasm to improve. According to Adam's language teachers, Adam was considered to be below his classmate's average learning, and he lacked the basics in terms of language learning. Although Adam's teachers recognised his weaknesses in literacy, they still believed that he was a very intelligent boy as he was quick-witted when learning his part in games. Adam's parents were known to be very supportive and they always visited the school to discuss his learning difficulties with his teachers.

5.3 Identification methods

As I mentioned earlier, Adam was a bilingual (Arabic – English) learner which is why I conducted (LASS-8-11) the Arabic and the English version. On that premise I used two models to identify Adam's literacy problems; the attainment/discrepancy (strong and weak), and the attainment lowest 10% (strong and weak) which whereas discussed in more depth in chapter 2 above. Table (1) below outlines Adam's scores in the LASS 8-11) Arabic/ English. The

discrepancy results were calculated using the reasoning score of centile 44%; Z score (-0.151) and each other test mentioned below.

Table 70: Adam's scores on the LASS Arabic and English test

Area of measurement	**Test discerption**	**Cent-ile score**	**Z score**	**Z score difference**	***Discrep-ancy**
Reasoning	Non-verbal intelligence	44	-0.151		
English single word reading	Reading individual words out of context	1	-2.324	2.1	($p < 0.001$)
English spelling	Spelling individual words that are spoken by the computer	1	-2.324	2.1	($p < 0.001$)
Auditory memory	digit span	4	-1.751	1.6	($p < 0.01$)
Visual memory	immediate recall of objects and their spatial positions	75	0.674	0.8	($p < 0.05$)
Segmentation	segmentation and deletion of syllables and phonemes in real words	1	-2.324	2.1	($p < 0.001$)
English non-word	Reading individual non-words	1	-2.324	2.1	($p < 0.001$)
Arabic sentence reading	Identifying the missing word from a choice of five alternatives.	20	-0.842	0.7	($p < 0.05$)
Arabic spelling	Spelling individual words that are spoken by the computer	10	-1.282	1.1	($p < 0.01$)
Arabic non-word	Reading individual non-words	95	1.644	1.7	($p < 0.001$)

In accordance with the English scores, Adam had specific literacy difficulties in the strong attainment/ discrepancy model as he scored significantly below the reasoning score in single word reading, spelling, auditory memory, visual memory, segmentation and non-word. Adam also showed specific literacy difficulties in the strong attainment 10% model. His scores in the single word reading and spelling were in the lowest 10%. He also had significantly lower scores in the auditory memory, visual memory, segmentation and non-word in line with the reasoning score. (See table 1 below for more details). Moving on to the Arabic tests, Adam also had specific literacy difficulties according to the strong attainment discrepancy model. He scored significantly below the reasoning test in sentence reading, spelling, auditory memory, visual memory,

and non-word. Considering the attainment lowest 10% model, Adam had specific literacy difficulties in the weak version, as he scored in the lowest 10% in the spelling test only; not to mention that he scored significantly below the reasoning score in the auditory memory, visual memory, and non-word (see table 2 below which is a summary of the nature of SpLD in each language and the comparison between them).

Table 71: summary of the nature of the SpLD in English and Arabic

	Discrepancy model	Low attainment model
English	Strong	Strong
Arabic	Strong	weak

5.4 Qualitative analysis of Adam's interview

5.4.1 General self-concept (how he perceives himself as a person)

Adam looked utterly confident throughout the interview, and he was very articulate about how good he is as a person although he tried carefully not to point out any of his learning difficulties. Adam perceived himself very positively especially when he compared himself to his classmates; he said: *"I find myself very comparable to many students, yes sometimes I am naughty but in general I am a good student".* Adam's Arabic and English teachers moreover, considered him as a very intelligent and confident pupil despite his literacy difficulties. In general Adam and his teachers shared the same opinion about his positive general self-concept, but if we look back at his results taken from the general self-concept questionnaire; Adam did not entirely reflect his confidence, as his score on the rating scale was only very slightly above the mid-point, however, his classmates, who are bilingual SpLD and bilingual typical, had considerably higher scores than he actually had. (See table 72 below for more details).

Table 72: Adam's scores in the general self-concept questionnaire

Self-concept questionnaire	N	general self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	3.10		52.5
Bilingual SpLD	27	3.74	0.75	
Bilingual typical	36	4.00	0.82	

5.4.2 Arabic reading self-concept

According to the Arabic reading self-concept Adam also seemed very positive about his reading abilities and although he sometimes *"makes mistakes"* he considered this to be nothing to worry about. Adam said: *"Arabic reading is quite an easy thing to learn"*. Adam's reading positivity was reflected to some extent in his reading self-concept questionnaire which was also above the mean score of the bilingual pupils with SpLD. Adam's score in the rating score was also higher than the mid-point (see table 73 below for more details). Adam's Arabic teacher on the other hand, saw his reading attainment in a rather negative way. She said *"He cannot read, to be honest, and you can understand nothing from his reading*". In conclusion, Adam and his teacher did not agree on the way he perceived himself in Arabic reading.

Table 73: Adam's scores in the Arabic reading self-concept questionnaire

Self-concept questionnaire	N	Arabic reading self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	3.8		70
Bilingual SpLD	27	3.7	0.77	
Bilingual typical	36	3.9	0.78	

5.4.3 Arabic spelling self-concept

As for Arabic spelling, Adam perceived himself very highly and he appeared very confident when we talked about his spelling achievement. Adam said: "*I have no problem whatsoever with Arabic spelling"* which was the same positivity he showed in his spelling self-concept questionnaire. Adam scored very highly in the questionnaire which was noticeably higher than the SpLD and typical bilingual groups. His score in the rating scale was also way above the mid-point (See table 4 below for more details). This positivity however was not seen by his Arabic teacher as she said: "*he actually knows the letters but his spelling skill is less than okay"*. This ultimately meant that Adam had hidden the spelling difficulties that his teacher pointed out and showed a positive perception about himself instead.

Table 74: Adam's scores in the Arabic spelling self-concept questionnaire

Self-concept questionnaire	N	Spelling self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	4.67		91.75
Bilingual SpLD	27	3.73	0.79	
Bilingual typical	36	3.82	0.89	

5.4.4 Arabic handwriting

Adam was less interested in talking about his handwriting skills because according to him: "nobody will evaluate us in this module". He then said *"but I am okay; my handwriting is not bad and it is clear if my teacher wanted to read it".* Although Adam was less positive about his handwriting skills he perceived himself rather highly in the Arabic handwriting self-concept questionnaire. This time Adam's peers in the SpLD and the typical bilingual groups had a higher score then he did, and his score on the rating scale was above the mid-point (See table 5 below for more details). Adam's Arabic teacher was equally disinterested in talking about his writing as Adam was himself. According to her "*his handwriting is not clear at all, you need a magnifier to know what he wrote, but also this is not my concern at the moment; his literacy abilities are what concern me most"*. Although Adam's perception about his handwriting was not positive when I talked to him, it was still much more positive than his Arabic teacher.

Table 75: Adam's scores in the Arabic handwriting self-concept questionnaire

Self-concept questionnaire	N	Arabic handwriting self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	3.50		62.5
Bilingual SpLD	27	3.72	0.93	
Bilingual typical	36	3.93	0.87	

5.4.5 English reading self-concept

From talking to Adam about English literacy you could immediately tell how desperate he was to be as good as his parents in English. He would compare himself to his parents often, and he admitted this many times by saying *"I would love to be able to speak this way (parent's way of mixing Arabic and English together) or read books like them but I cannot".* Adam's English reading self-concept was not extremely high during the interview but his score in the English reading self-concept questionnaire showed a better perception of his reading self-concept. However, the mean scores of the bilingual SpLD and typical groups however were higher than his score (see table 76 below for details). Adam's English teacher had high hopes for him regarding English learning as she

believed that he had no literacy difficulties; *but she said that ", I think he is able but he refused to study, hence his scores in reading are terrible"*. Overall Adam's opinion of his own reading was not very far from his teacher's opinion.

Table 76: Adam's scores in the English reading self-concept questionnaire

Self-concept questionnaire	N	English reading self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	3.40		60
Bilingual SpLD	27	3.74	0.75	
Bilingual typical	36	4.0	0.82	

5.4.6 English spelling self-concept

Adam showed a high level of positivity toward his spelling skills. He appeared to be very confident when he described how easy English spelling is. Adams positive spelling self-concept lends credence to his very high score in the spelling self-concept questionnaire. Although his score was as high as the mean score of the bilingual typical group, his score was still higher than the bilingual SpLD group (See table 77 below for more details). Adam's English teacher was still determined that he has no literacy difficulties and he was just a student who did not like to study. She consistently said: "*although he is average in spelling compared with his classmates, I believe if he focused more he could start writing anything he wants".* By looking back at Adam and his teacher's interviews, it is clear that both have almost the same opinion toward his spelling skills, although Adam totally denied any difficulties he encountered.

Table 77: Adam's scores in the English spelling self-concept questionnaire

Self-concept questionnaire	N	English spelling self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	4.17		77.5
Bilingual SpLD	27	3.73	1.04	
Bilingual typical	36	4.17	0.88	

5.4.7 English handwriting self-concept

Once more, English handwriting appeared to be an English module that Adam and his teacher were less worried about it. Although Adam showed less interest in talking about handwriting, he described his handwriting to be "*as good as his Arabic handwriting"*. Besides, Adam showed a reasonably high score in the handwriting self-concept questionnaire yet it was lower than the mean score of the bilingual SpLD and typical groups (See table 8 below for details). Adam's English teacher found this question difficult to answer because she said: "*I don't mind him having a bad handwriting if he can read and spell properly".* Overall Adam was consistently positive in both the interview and the questionnaire but his teachers seemed not to view him as positively as he did.

Table 78: Adam's scores in the English handwriting self-concept questionnaire

Self-concept questionnaire	N	English handwriting self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	3.83		70.75
Bilingual SpLD	27	3.91	0.97	
Bilingual typical	36	4.04	1.03	

5.4.8 Maths self-concept

"Maths is something I love and I am good at it". This is how Adam responded to the question about his maths achievement. Adam was extremely positive about his maths attainment which was reflected in his score in the maths self-concept questionnaire. Adam's high score was also higher than the mean score of the bilingual SpLD and typical groups and his score in the rating scale was also way above the mid-point (See the table below for more details). Because I had the chance to look at Adam's maths scores throughout the term, I noticed that he was not as good as he proposed to me and that he is actually considered an average student in the class. This suggests that Adam has high hopes for himself when it comes to maths.

Table 79: Adam's scores in Math subject self-concept questionnaire

Self-concept questionnaire	N	Math self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	4.50		87.5
Bilingual SpLD	27	3.84	0.75	
Bilingual typical	36	3.77	0.87	

5.4.9 School subject self-concept

Throughout the interview Adam was utterly confident but he was even more confident when he talked about the rest of the school subjects. *"I am very good in all subjects"*. This was definitely reflected in his school subject self-concept questionnaire as he scored rather high. His score was also higher than the mean score of the bilingual SpLD and typical groups (See table 80 below for more details). During the interview with his English teacher she told me that she was responsible for each student in this particular class and she followed their attainment and social life. I took the opportunity to ask her about Adam's school subjects. She did not answer this question directly but rather she made an interesting point about how the parents nowadays focused only on the English language and ignored the rest of the subjects. In her opinion; *"The parents are very determined for their children to learn English, they came to school to ask about his achievement in English, they don't care about other subjects, so why would the children care?"* From the way this teacher answered the question I understood that she did not share the positive attitude that Adam had towards the school subjects.

Table 80: Adam's scores in the school subject self-concept questionnaire

Self-concept questionnaire	N	School subject self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	4.0		75
Bilingual SpLD	27	3.68	0.63	
Bilingual typical	36	3.85	0.82	

5.4.10 Athletic self-concept

Adam was extremely excited when we talked about sports. He gave me no chance to ask questions, he went straight on to tell me how good he was in certain sports and how fit and competitive he was. He also mentioned that he is leading a football team in his area which had boosted his confidence a great deal. Adam certainly showed his positivity in the athletic self-concept questionnaire as he had the highest score among his peers whose mean scores were lower than his.

Adam also had a high score in the rating scale which was way above the mid-point (See table 81 for details). I can tell from interviewing Adam that he was not only confident he was also very relaxed and articulate in that particular part of the interview. I also noticed that he did not need to think as thoroughly about the answers as he did with other areas of the interview.

Table 81: Adam's scores in the athletic self-concept questionnaire

Self-concept questionnaire	N	athletic self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	4.33		83.25
Bilingual SpLD	27	3.91	0.58	
Bilingual typical	36	3.83	0.79	

5.4.11 Social self-concept

From talking to Adam throughout the interview, I anticipated that he was going to tell me that he was extremely popular among his friends. Adam, however, sounded very sensible in this area of the interview and he clearly said when I asked him about his relationship with his friends: *"I think it is okay, they are okay, I do not have very many friends though, but I have a couple of close friends which we spend time together".* Adam on the other hand had a quite high score in the social self-concept questionnaire which was again higher than the mean score of the bilingual SpLD and typical groups (See table 12 below for details). Adam's Arabic and English teacher on the other hand had a consistent view of him in terms of his friendships as both believed that he is like any other student; he is outgoing and very active.

Table 82: Adam's scores in the social self-concept questionnaire

Self-concept questionnaire	N	social self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	4.11		77.75
Bilingual SpLD	27	3.76	0.74	
Bilingual typical	36	3.68	0.67	

5.4.12. Foreign language intrinsic motivation

Although Adam and I talked a lot during the interview about the importance of learning English as an Omani resident. Adam appeared to have no internal

motivation to learn the English language at all and he seemed not to enjoy the language. Adam did not mention any internal satisfaction from learning English or even the joy of benefiting from it and learning new things. Having said that, Adam had an above average score in the language learning orientation scale/ intrinsic motivation, but which was also lower than the mean score of the bilingual SpLD and typical groups (See table 83 below for more details). Both Adam's Arabic and English teachers seemed to agree with him and they pointed out the fact that Adam had no internal reason to learn English.

Table 83: Adam's scores in the language learning orientation scale/ intrinsic motivation

Language learning orientations scale	**N**	**Intrinsic motivation (x̄)**	**Standard deviation**	**% score on rating scale**
Adam	1	3.67		66.75
Bilingual SpLD	27	3.97	0.61	
Bilingual typical	36	4.14	0.69	

5.4.13. Foreign language extrinsic motivation

As for the extrinsic motivation Adam clearly stated his external motivation to learn English. He said that he learnt English because his parents always encouraged him to do so; he also stated that: "*I need to learn English if I want to study abroad, or speak to people who don't understand Arabic".* Adam definitely had the above statement in mind as a reason to study English and he clearly showed this in the language learning orientation scale/ extrinsic motivation as he scored very highly (See table 84 below for details). Adam's language teacher also shared the same opinion and both agreed that it was his parents who pushed him to study English because they travel abroad quite a lot.

Table 84: Adam's scores in the language learning orientation scale/ extrinsic motivation

Language learning orientations scale	**N**	**Extrinsic motivation (x̄)**	**Standard deviation**	**% score on rating scale**
Adam	1	4.00		75
Bilingual SpLD	27	3.87	0.72	
Bilingual typical	36	3.92	0.77	

5.5 Conclusions

Although Adam had specific literacy difficulties according to the discrepancy and attainment models, he tried his best to deny his literacy problems throughout the interview. Adam perceived himself fairly positively as a person and he believed he was very comparable with his peers. Adam scored himself low in the self-

concept questionnaire which was rather confusing especially considering that his English and Arabic teachers mentioned that despite his literacy problems he is quite confident within himself.

For Arabic reading self-concept Adam continued to be positive about his reading abilities and reflected that in the high score he had in the questionnaire. His Arabic teacher however did not agree with him and she indicated that he can barely read anything. Adam's confidence was evident even more so with his very high score in the spelling self-concept questionnaire, which was also consistent what his interview, as he said that he had no problem at all with his spelling skills. Again Adam's Arabic teacher did not agree with him and believed that he only knew the alphabetic, but he considered him to be an average student in his spelling skills.

With regard to English reading self-concept Adam was very attached to his parent's way of speaking. They both mixed English and Arabic while speaking and he wished that he had the English skills to do the same. The way Adam answered the question about how he perceived himself as an English reader was not really clear, but it was revealed by his score which was lower than his peers. Adam's English teacher continued to emphasise the fact that Adam had no literacy problems but he was simply uninterested in learning anything. Adam was consistent in his opinions in the interview and the questionnaire when it came to English spelling self-concept and he perceived himself very highly. Adam's perception was opposite to his teacher's opinion as she said again that the problem with Adam was his lack of enthusiasm in learning. With respect to maths, athletics and other subjects, Adam was also very positive and comfortable regarding his learning and athletic skills. This was reflected by his high scores in the questionnaire which were also consistent with his interview.

In social life self-concept Adam considered himself not to be popular but he still had a couple of close friends to enjoy time with. However, Adam scored himself highly in the questionnaire which might represent his aspirations to be a popular student. His Arabic and English teachers on the other hand thought that Adam was like any other child - active and outgoing.

When Adam and I started to talk about English language and what motivated him to learn the language, Adam appeared not to be enjoying the language and he did not mention any internal reason or any satisfaction he gained from learning the English language. Adam on the other hand scored himself in the intrinsic

section of the motivation scale slightly high although his peers scored higher than he did, which could represent his desire to be as good as his parents as he mentioned this a lot during the interview. Adam. On the other hand, seemed to think that English was only important for going to university when he was older as his parents had told him. This might be a reason why Adam scored himself high in the extrinsic section of the motivational scale.

Overall Adam was consistent in his perception toward the way he perceived himself as a person and as a learner and he clearly denied any literacy problems he encountered. His teachers on the other hand were also consistent in their opinions throughout the interview and believed that Adam had no literacy problems but that he lacked the enthusiasm to learn anything.

5.5 Case study: 4

Student's name: Sarah **Age:** 11

Grade: 5 **Gender:** Female

5.1 personal details

Sarah was an 11-year-old girl at the time of the interview. Her native tongue was Arabic which was also the only language being used at home. Sarah started studying at the same school where I met her in grade one, hence she was very familiar with the school and the teachers. Sarah was the oldest of her sibling and she often helped her little brother to do his homework.

Sarah did not show any signs of literacy difficulties until the English language started to become a main subject of learning and was included in maths and sciences. Due to the fact that her school did not have any special needs facilities, Sarah's English literacy difficulties continued to grow over time. Her parents were aware of her literacy problems but did not make any arrangements to see a specialist to asses her or to support her with her English literacy in any other particular way.

5.2 Back ground information

Sarah's overall attainment in school was average in comparison to her class mates, she did not show any major problems in any subjects but the English language. Although she was not identified to have specific literacy difficulties in English; her English teacher believed that she had a major problem with the language. Sarah normally liked to do her homework and she seemed responsible in her school duties. She was also known to be a shy person with no behavioural problems.

5.3 Identification methods

Sarah was one of the few female students who were referred to me to be assessed and to take part in the study. As usual Sarah was a bilingual (Arabic-English) learner, hence I used (LASS 8-11) in both languages. According to the test Sarah had specific literacy difficulties in terms of the discrepancy model (details were mentioned in chapter 2 above) as she showed a discrepancy

between her reasoning score and English single word reading, spelling. She also showed significant differences between the reasoning and the auditory memory, visual memory, segmentation and non-word. Regarding the attainment lowest 10% model Sarah also had specific literacy difficulties and scored in the lowest 10% in single word reading, spelling, auditory memory, visual memory, segmentation and non-word (see Table 1 below for details).

Regarding the Arabic language and in terms of the discrepancy model, Sarah showed a discrepancy between reasoning and the attainment tests yet, these tests were not in the lowest 10%. She also did not show a SpLD regarding the attainment lowest 10% model. (LASS) results are shown in the table 85 below. The discrepancy results are calculated between the reasoning score of centile 48%; Z score (-0.05) and each other test mentioned below.

Table 85: Sarah's scores on the LASS Arabic and English test

Area of measurement	**Test discerption**	**Cent-ile score**	**Z score**	**Z score difference**	**Discrep-ancy**
Reasoning	Non-verbal intelligence	48	-0.05		
English single word reading	Reading individual words out of context	3	-1.881	1.8	($p < 0.001$)
English spelling	Spelling individual words that are spoken by the computer	1	-2.324	2.2	($p < 0.001$)
Auditory memory	digit span	13	-1.126	1.0	($p < 0.01$)
Visual memory	immediate recall of objects and their spatial positions	21	-0.806	0.7	($p < 0.05$)
Segmentation	segmentation and deletion of syllables and phonemes in real words	1	-2.324	2.2	($p < 0.001$)
English non-word	Reading individual non-words	10	-1.282	1.2	($p < 0.01$)
Arabic sentence reading	Identifying the missing word from a choice of five alternatives.	90	1.282	1.3	($p < 0.01$)
Arabic spelling	Spelling individual words that are spoken by the computer	80	0.842	0.8	($p < 0.05$)
Arabic non-word	Reading individual non-words	90	1.282	1.3	($p < 0.01$)

Here is another table below to sum up Sarah's nature of SpLD in each language and the comparison between them.

Table 86: summary of the nature of the SpLD in English and Arabic

	Discrepancy model	Low attainment model
English	Strong	strong
Arabic	No SpLD	No SpLD

5.4 Qualitative analysis of Sarah's interview

5.4.1 General self-concept (how she perceives herself as a person)

Throughout the interview, Sarah appeared to be not very confident in the way she responded to the questions. She was also not very articulate and always gave short answers. But when she started talking about herself she said: *'I am a good person, I do nothing bad to others'*. Although she sounded very shy when she said so, she scored herself extremely high in the general self-concept questionnaire which was higher than the mean score of the bilingual pupils with SpLD and typical (see table 87 below for more details). Her English and Arabic teacher moreover stated that; *'Sarah is rather a shy student and she seems to lack confidence'.*

Table 87: Sarah's scores in the general self-concept questionnaire

Self-concept questionnaire	N	Arabic reading self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sarah	1	4.80		95
Bilingual SpLD	27	3.74	0.75	
Bilingual typical	36	4.00	0.82	

Arabic literacy self-concept

5.4.2 Arabic reading self-concept

Sarah perceived herself very high in Arabic reading. She said; *'I am good at reading, it's not difficult and I am happy to read out loud in front of my classmates'. Her positivity in reading* was in line with her self-concept questionnaire as she scored rather high and even higher than the mean score of the bilingual pupils with SpLD (see the table below for more details). Her score on the rating scale was extremely high as well. Overall, this showed a positive pattern of Arabic reading self- concept that I anticipated from her high score in (LASS 8-11) (see

table 1 above). Sarah's positive perception of her Arabic reading was in line with her Arabic teacher's opinion of her reading skills. She said; *'the only problem with Sarah is that she has a very low voice which makes her sound like she does not know how to read, but she is not bad at all'*. This suggests that Sarah's teacher did not completely share her positive views about her Arabic reading skills although she did not find her to have any literacy difficulties.

Table 88: Sarah's scores in the Arabic reading self-concept questionnaire

Self-concept questionnaire	N	Arabic reading self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sarah	1	4.9		97.5
Bilingual SpLD	27	3.7	0.77	
Bilingual typical	36	3.9	0.78	

5.4.3 Arabic spelling self-concept

Sarah seemed to enjoy the Arabic spelling because she was positive and happy about her spelling skills although she said that; *"I cannot write a long paragraph without mistakes, but I am good at spelling".* This positivity was represented by her very high score in the spelling self-concept questionnaire which was also the highest among her bilingual SpLD and typical peers (see table 5 below for details). Sarah's Arabic teacher shared the same opinion as her and she indicated that*; "Sarah always prepared for her spelling classes, I think she is working harder than her classmates to be as good as many of them"*. From her teacher's opinion I suspect that her teacher thought that without Sarah's effort in preparing well at home, she might not have been as good as she was.

Table 89: Sarah's scores in the Arabic spelling self-concept questionnaire

Self-concept questionnaire	N	Spelling self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sarah	1	5.00		100
Bilingual SpLD	27	3.73	0.79	
Bilingual typical	36	3.82	0.89	

5.4.4 Arabic handwriting

Due to the fact that the handwriting classes do not take place any more at Sarah's school, many students, including Sarah, found this question rather difficult

because as Sarah told me; *'I am not sure how good I am in handwriting because we do not get scores, but I believe I am good at it'*. Sarah on the other hand had a very high score in the handwriting questionnaire which was at the top of the other bilingual SpLD and typical groups (see table 90 below for more details). Sarah's score in the rating scale was also way above the mid-point. Sarah's Arabic teacher shares her opinion and indicated that Sarah had neat handwriting unlike many boys in her class.

Table 90: Sarah's scores in the Arabic handwriting self-concept questionnaire

Self-concept questionnaire	N	Arabic handwriting self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sarah	1	5.00		100
Bilingual SpLD	27	3.72	0.93	
Bilingual typical	36	3.93	0.87	

English literacy self-concept

5.4.5 English reading self-concept

During the interview, Sarah compared each Arabic literacy question with the English language. She mentioned many times that reading in English was much more difficult than reading in Arabic. When I mentioned her English reading skills Sarah said; *'I find many words difficult to read in English even when I try hard I can never understand why it is pronounced this way'*. Sarah from her answer represented the differences between the Arabic and the English language which was discussed in literature review chapter above. Sarah's score in the English reading self-concept was roughly at the mean level for the relevant comparative group (3.9) for her and (3.74) for the bilingual SpLD. (see table 91 below for details). This positivity in her score might be connected to her aspirations to be good in English especially considering that she was considered to be a good student in other subjects. Sarah's English teacher happened to share her opinion and believed that Sarah was struggling with her English language and she said: *'I can tell that Sarah is facing a real challenge with English, she can barely read simple words'*.

Table 91: Sarah's scores in the English reading self-concept questionnaire

Self-concept questionnaire	N	English reading self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sarah	1	3.9		72.5
Bilingual SpLD	27	3.74	0.75	
Bilingual typical	36	4.0	0.82	

5.4.6 English spelling self-concept

'No matter how hard I try to practice at home, I can never get a good score in the dictation, it is more difficult than the Arabic spelling'. Again Sarah pointed out the comparison between the two languages to demonstrate her struggle with English spelling. Although her score in the spelling self-concept was slightly lower than her score in reading self-concept, she still had a fairly high score which was higher than the mean score of the bilingual SpLD group (see table 92 below for details). Once more Sarah, showed an inconsistency between the interview and the questionnaire which again might be connected to her hopes for better spelling skills. Sarah's English teacher moreover, shared her opinion and indicated that Sarah was lagging behind her peers in all areas of the English language.

Table 92: Sarah's scores in the English spelling self-concept questionnaire

Self-concept questionnaire	N	English spelling self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sarah	1	3.83		70.75
Bilingual SpLD	27	3.73	1.04	
Bilingual typical	36	4.17	0.88	

5.4.7 English handwriting self-concept

In the English spelling self-concept Sarah had a different story to tell. She proudly said that she can copy the way it is written in the book; *'I have nice handwriting like in Arabic'*. Thus, it was no surprise to see Sarah had as high a score in the handwriting self-concept as the Arabic handwriting self-concept which were her two highest scores throughout the questionnaire. Sarah's score in the rating scale was higher than the mean score of the two bilingual SpLD and typical groups (see table 93 below for details). Sarah's English teacher shared her positivity toward her handwriting and said; 'Sarah has neat handwriting'. Overall this showed the consistency between Sarah, her teacher in the questionnaire.

Table 93: Sarah's scores in the English handwriting self-concept questionnaire

Self-concept questionnaire	N	English handwriting self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sarah	1	5.00		100
Bilingual SpLD	27	3.91	0.97	
Bilingual typical	36	4.04	1.03	

5.4.8 Maths self-concept

During the interview about maths, Sarah said simply that she was good at her maths classes, she can never explain why she was good and which part of maths she enjoyed most. From this I suspected that Sarah was trying to hide some of her difficulties, which might be the reason for her having a low score in the maths self-concept questionnaire. Sarah's low score was the lowest among all her areas of the questionnaire, and even lower than the mean score of the bilingual SpLD and the typical groups. Her score in the rating scale was way below the mid-point (See table 94 below for more details).

Table 94: Sarah's scores in Math subject self-concept questionnaire

Self-concept questionnaire	N	Math self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sarah	1	2.20		30
Bilingual SpLD	27	3.84	0.75	
Bilingual typical	36	3.77	0.87	

5.4.9 School subject self-concept

According to the school subject questions, Sarah said that; *'I am better in the rest of the subjects than English'* and she emphasised how much she enjoyed the religious studies and how good she was. Her positivity in this section was almost reflected by her score in the school subject self-concept questionnaire. Sarah had an above average score, which surprisingly was higher than the mean score of the bilingual SpLD and typical groups. Her score in the rating scale was also above the mid-point (see table 95 below for details). Due to the fact that I did not have access to her school scores I cannot make any comparisons in this section.

Table 95: Sarah's scores in the school subject self-concept questionnaire

Self-concept questionnaire	N	School subject self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sarah	1	3.90		72.5
bilingual SpLD	27	3.68	0.63	
Bilingual typical	36	3.85	0.82	

5.4.10 Athletic self-concept

Sarah was very clear and straightforward in answering the athletic questions. It was easy for her to compare herself to the boys. She said; *'I am not really that good in sports, the boys are much better than me'*. Her views in the interview of her low skills in sports revealed her low score in the athletic self-concept questionnaire, which was also lower than the mean score of the bilingual SpLD and typical groups. Her score in the rating scale was also below the mid-point (see table 96 below for more details). Overall, Sarah was consistent between the way she perceived herself and her questionnaire.

Table 96: Sarah's scores in the athletic self-concept questionnaire

Self-concept questionnaire	N	athletic self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sarah	1	2.67		41.75
Bilingual SpLD	27	3.91	0.58	
Bilingual typical	36	3.83	0.79	

5.4.11 social self-concept

As I mention earlier, Sarah was very shy during the interview, but this happened to be the way she was in her school social life as well. Sarah said; *'I do not have many friends, only one, I spend my time with her during the lunch break'*. I asked Sarah if she was new to the school as this could be a reason. She said; *'I have been in this school since grade one, I feel shy to make friends and they do not come to talk to me'*. Sarah's score in the social self-concept questionnaire was not high either, although her score on the rating scale is above the mid-point but still low and lower than the mean score of the bilingual SpLD and typical groups (see table 97 below for details). Sarah's English and Arabic teacher had the same opinion as her and they believed that she was a shy girl and that they never saw her engaging with other friends.

Table 97: Sarah's scores in the social subject self-concept questionnaire

Self-concept questionnaire	N	social self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sarah	1	3.11		52.75
Bilingual SpLD	27	3.76	0.74	
Bilingual typical	36	3.68	0.67	

5.4.12. Foreign language intrinsic motivation

During the interview with Sarah she did not appear to know why it was important for her to learn the English language, although she believed that it was equally important to learn English as Arabic. Sarah seemed not to be enjoying learning the English language at all, and maybe because of her literacy difficulties she could not see beyond that. She only said: *"English is difficult; I spend my time at home reading - but still difficult".* Sarah's score in the language learning orientation scale/ intrinsic motivation was low and lower than the mean score of the bilingual SpLD and typical group. Her score on the rating scale was also just above the mid-point (see table 98 below for details).

Table 98: Sarah's scores in the Language learning orientations scale/ intrinsic motivation

Language learning orientations scale	N	Intrinsic motivation ($\bar{x}$)	Standard deviation	% score on rating scale
Sarah	1	3.17		54.25
Bilingual SpLD	27	3.97	0.61	
Bilingual typical	36	4.14	0.69	

5.4.13. Foreign language extrinsic motivation

As for the extrinsic motivation, Sarah had only one thing to say about this part of the interview; which she repeated every time I needed to get more answers from her. She said: *"English is good for when I want to go to the university"*. This meant that Sarah thought that the English language was important for her when she wanted to go to university and not to be praised by her teacher for instance. Sarah's rating score was above the mid-point but she scored lower than her bilingual SpLD and typical peers in the language learning orientation scale/ extrinsic motivation (see table 99 below for more details).

Table 99: Sarah's scores in the Language learning orientations scale/ extrinsic motivation

Language learning orientations scale	N	Extrinsic motivation ($\bar{x}$)	Standard deviation	% score on rating scale
Sarah	1	3.67		66.75
Bilingual SpLD	27	3.87	0.72	
Bilingual typical	36	3.92	0.77	

5.5 Conclusion

Interviewing Sarah was a challenge because it was very difficult for her to articulate her views. Despite that, Sarah's responses to the interview and the questionnaire were mostly consistent especially where English literacy was not included. From looking at her scores in (LASS 8-11), Sarah had SpLD in English in both the discrepancy model and the lowest 10%. She, however, did not show any Arabic literacy difficulties which appeared clearly in her answers. Besides, Sarah started to compare the difficulties between the two languages (Arabic vs English) from the beginning of the interview which showed her struggle with using the English language.

To start off with the general self-concept; Sarah was positive about herself and was consistent in her answers but not with her English and Arabic teacher, as they both believed that Sarah lacked confidence. In Arabic literacy, Sarah was more positive and consistent in the interview and the questionnaire regarding her reading, spelling and her handwriting in Arabic. Her Arabic teacher however was not as positive as Sarah and was slightly sceptical about her literacy skills when she indicated that *"she is not bad at all in her reading"* and then she said with respect to spelling, *"I think Sarah is working harder than her classmates in an attempt to be as good as many of them"*, but this did not apply to her opinion of Sarah's handwriting as she found it *'rather neat'.*

A regards English reading and spelling, Sarah had a negative perception of herself in the interview but was up high in the questionnaire as an indication of her aspirations and the way she might want to be. Sarah's English teacher shared her negative opinion and believed that she had a real problem with reading and writing. This negativity did not apply however to English handwriting as it was consistently positive in Sarah's interview, questionnaire and her English teacher's comments.

In terms of maths, Sarah claimed that she was good in maths but had a low score in the questionnaire, whereas in the rest of the school subjects Sarah was positive and also had a high score in the questionnaire. As for athletics, Sarah was negative about her athletic skills and represented that by a low score in the athletic self-concept questionnaire. Sarah's social life was represented by the way she acted during the interview, she was not very positive about her social life and sounded rather lonely and she scored herself low in the questionnaire. Sarah's English and Arabic teacher also talked in similar terms about her personality and about how lonely she looked all the time. In the intrinsic and the extrinsic motivation Sarah did not seem to be interested or enjoying the English language but rather saw it as a way to get through university when she was older. Her scores in both the intrinsic and the extrinsic questionnaire were consistent with her answers. Overall, Sarah was aware of the difficulties that she was facing with her English literacy skills which was demonstrated by her comparison between her skills in Arabic and English on one hand, and her aspiration to be good at English on the other hand.

5.6 Case study: 5

Student's name: Sam **Age:** 10

Grade: 4 **Gender:** male

5.1 personal details

Sam was a 10-year-old bilingual boy (Arabic-English). Sam's first language was Arabic and he used it on a daily basis at home and at school. Sam's parents were from a middle class background and were very strict with him in terms of his behaviour and his moral attitude. Sam was the eldest amongst his siblings and he had some responsibilities toward them. Sam started to develop learning difficulties from an early age and these continued as he got older. The teachers and his parents were aware of his literacy problems but no action was taken to support his learning problems.

5.2 Back ground information

Sam was known among his teachers to be very self-conscious and quite shy and not wordy at all. He was very quiet in the classroom and outside as well. According to his school records, Sam was very below the average level of his class in all subjects including sports and religious studies. Sam never participated in any activities whether it was a learning activity or a fun one. Sam was referred to me by the school counsellor because he thought if he had evidence from me he could inform the parents and might get some support for Sam.

5.3 Identification methods

Due to the fact that Sam was a bilingual (Arabic-English) student, I administered with him (LASS-8-11) in both languages. His results which are recorded in table 1 below, showed that Sam had specific literacy difficulties in both languages. The discrepancy results were calculated using the reasoning score of centile 21%; Z score (-0.06) and calculate it according to each sub-test. In English language, and according to the discrepancy model, Sam showed a significant difference between the reasoning and single word reading, spelling and auditory memory, segmentation and non-word. Sam also had specific literacy difficulties in terms of

the attainment lowest 10% model as he scored in the lowest 10% in single word reading and spelling along with significant differences in the auditory memory, segmentation and non-word. Moving on to the Arabic tests, Sam also had specific literacy difficulties according to the attainment lowest 10% model as he scored in the lowest 10% category in sentence reading and spelling along with a significantly low score in the auditory memory test. Having said that, Sam had no SpLD in terms of the discrepancy model in Arabic (see table 100 below for a summary of Sam's nature of SpLD in each language).

Table 100: Sam's scores on the LASS Arabic and English test

Area of measurement	**Test discerption**	**Cent-ile score**	**Z score**	**Z score difference**	***Discrepancy**
Reasoning	Non-verbal intelligence	21	-0.806		
English single word reading	Reading individual words out of context	4	-1.751	0.9	($p < 0.05$)
English spelling	Spelling individual words that are spoken by the computer	1	-2.324	1.5	($p < 0.01$)
Auditory memory	digit span	2	-2.254	1.4	($p < 0.01$)
Visual memory	immediate recall of objects and their spatial positions	75	0.674	1.5	($p < 0.01$)
Segmentation	segmentation and deletion of syllables and phonemes in real words	1	-2.324	1.5	($p < 0.01$)
English non-word	Reading individual non-words	1	-2.324	1.5	($p < 0.01$)
Arabic sentence reading	Identifying the missing word from a choice of five alternatives.	10	-1.282	0.4	not significant
Arabic spelling	Spelling individual words that are spoken by the computer	10	-1.282	0.4	not significant
Arabic non-word	Reading individual non-words	40	-0.253	0.5	not significant

Table 101: Summary of the nature of the SpLD in English and Arabic

	Discrepancy model	Low attainment model
English	strong	Strong
Arabic	No discrepancy	Weak

5.4 Qualitative analysis of Sam's interview

5.4.1 General self-concept (how he perceives himself as a person)

Sam looked completely uncomfortable during the interview and it was extremely difficult to get from him answers which were more than three words. He could not explain himself at all, or how he thought about himself as a person or as a student. I started to give him potential answers so he could choose from them. But it seemed more than difficult for Sam to articulate about himself. Surprisingly Sam scored himself very high in the general self-concept questionnaire and his score in the rating scale was well above the mid-point. His score was even higher than the mean score of the two bilingual groups (SpLD-Typical) see table 102 below for details. Accordingly, I suspected that Sam tried to express his high hopes to be a confident person which he could not actually be in real life. Sam's English and Arabic teachers shared the same opinion but were slightly negative toward Sam's personality. His Arabic teacher said; *"Sam did not exist in the classroom, he is very shy and quiet no matter what went on in the class".* Overall, although Sam was not negative in his answers, he expressed himself in a way that demonstrated how he lacked confidence which was agreed with completely by his teachers.

Table 102: Sam's scores in the general self-concept questionnaire

Self-concept questionnaire	N	general self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sam	1	4.10		77.5
Bilingual SpLD	27	3.74	0.75	
Bilingual typical	36	4.00	0.82	

5.4.2 Arabic reading self-concept

According to the Arabic reading self-concept Sam quietly said that he did not like Arabic. He simply said; *"it is difficult"*, and it was hard for me to get any more words from him. I changed the way I asked him about reading or what sorts of stories he liked to read, but it seemed that Arabic was a real issue for him and again he said; *"Arabic is so difficult"*. His Arabic difficulty was reflected by his low score in the Arabic reading self-concept questionnaire. His score in the rating scale was well below the mid-point and he scored lower than the mean score of the bilingual SpLD and the bilingual typical pupils (see table 4 below for details). One interesting point to add about Sam is that he is one of very few of 100 pupils in this study who had a low score in the Arabic phonological non-word (See table

101 above for details) which could be a sign of his Arabic reading difficulties. Sam's Arabic teacher shared the same negative opinion that he had towards reading and added that; *"Sam is one of the very few students that I have met in my teaching career who cannot read the alphabetical letters in grad 4*".

Table 102: Sam's scores in the Arabic reading self-concept questionnaire

Self-concept questionnaire	N	Arabic reading self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sam	1	2.30		32.5
Bilingual SpLD	27	3.7	0.77	
Bilingual typical	36	3.9	0.78	

5.4.3 Arabic spelling self-concept

With respect to Arabic spelling, Sam for the first time said that; *"English is easier than Arabic"* although I did not ask him about the differences between the two languages. But this could have been his way to explain how spelling in Arabic was difficult for him. Sam had an average score in the spelling self-concept questionnaire and his score in the rating scale was just in the mid-point. His score was lower than the mean score of the bilingual SpLD and typical groups (see table 5 below for details). Sam's Arabic teacher said; *"Sam cannot recognise the letters hence he draws instead*". To sum up, Sam and his teacher shared the same negative opinion toward spelling although each one stated it in a very different way.

Table 104: Sam's scores in the Arabic spelling self-concept questionnaire

Self-concept questionnaire	N	Spelling self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sam	1	3.00		50
Bilingual SpLD	27	3.73	0.79	
Bilingual typical	36	3.82	0.89	

5.4.4 Arabic handwriting

When I asked Sam about his handwriting in English he smiled, and he said; *"it is okay".* This time Sam showed some consistency in his opinion in the interview and his score in the Arabic handwriting questionnaire. He had a score which was above the mid-point in the rating scale although he was lower than the mean score of the bilingual SpLD and typical (see table 105 below for details). Sam's

Arabic teacher said that; *"he writes non-sense, a mixture of lines and weird drawing"*. Sam's teacher's negative opinion did not match his more positive vision of his handwriting.

Table 105: Sam's scores in the Arabic handwriting self-concept questionnaire

Self-concept questionnaire	N	Arabic handwriting self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sam	1	3.50		62.5
Bilingual SpLD	27	3.72	0.93	
Bilingual typical	36	3.93	0.87	

5.4.5 English reading self-concept

When I spoke to Sam about his English reading skills, he seemed more positive and cheerful than when we talked about the Arabic language. He surprisingly said*; "I am good, easier than Arabic though"*. Sam's score in the English reading self-concept said the same thing about his opinion during the interview, he had a high score which was higher than the mean score of the bilingual SpLD and bilingual typical and his score in the rating scale was above the mid-point (see table 106 below for details). Sam's English teacher did not agree with him at all as she believed that; *"he has no clue about English reading"*. This is not the first time that Sam's teacher did not share his opinion.

Table 106: Sam's scores in the English reading self-concept questionnaire

Self-concept questionnaire	N	English reading self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sam	1	4.10		77.5
Bilingual SpLD	27	3.74	0.75	
Bilingual typical	36	4.0	0.82	

5.4.6 English spelling self-concept

Sam appeared to be fond of the English language compared with the Arabic language. He said: *"I am okay but Arabic is more difficult"* again Sam made that comparison between the two languages as if he had it in his mind all the time. Sam also had a high score in the spelling self-concept which was even higher than the reading self-concept. His score was comparable to the mean score of the bilingual typical pupils but higher than the bilingual pupils with SpLD and his score on the rating scale was higher than the mid-point (see table 8 below for details). Apparently, Sam's English teacher did not agree with him as he considered him a student with "*severe difficulties".*

Table 107: Sam's scores in the English spelling self-concept questionnaire

Self-concept questionnaire	N	English spelling self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sam	1	4.17		77.5
Bilingual SpLD	27	3.73	1.04	
Bilingual typical	36	4.17	0.88	

5.4.7 English handwriting self-concept

Once more Sam appeared not completely positive about his English handwriting, he said shyly that; *"my handwriting is good"*. Sam's score in the English handwriting self-concept was moderately high although it was lower than the mean score of the bilingual SpLD and typical group. Apparently his score in the rating scale was above the mid-point (see table 9 below for details). Sam's English teacher did not share his opinion and believed that; "*due to his writing difficulties you cannot recognise his writing properly"*

Table 108: Sam's scores in the English handwriting self-concept questionnaire

Self-concept questionnaire	N	English handwriting self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Sam	1	3.67		66.75
Bilingual SpLD	27	3.91	0.97	
Bilingual typical	36	4.04	1.03	

5.4.8 Maths self-concept

Sam believed that he was good at Maths, he said; *"maths is easy if the teacher explains the question in Arabic"*. This statement by Sam could reflect his English reading difficulties that he did not explain clearly when we talked about English reading. Sam expressed his positivity toward maths which was clear in his very high score in the maths self-concept questionnaire. Sam had a score higher than the mean score of the bilingual SpLD and typical groups (see table 10 below for details). Due to the fact that I did not meet his maths teacher, I had no other opinion to compare with but it was obvious that Sam was consistent in his own views.

Table 109: Sam's scores in Math subject self-concept questionnaire

Self-concept questionnaire	N	Math self-concept (x̄)	Standard deviation	% score on rating scale
Sam	1	4.70		92.5
Bilingual SpLD	27	3.84	0.75	
Bilingual typical	36	3.77	0.87	

5.4.9 School subject self-concept

Sam had a particular subject that he enjoyed most of all which was art. *He said; "I always do well at craft and my teacher likes them".* Sam was positive about art but he would not talk about other subjects. His score in the school subject self-concept however was high but slightly lower than the mean score of the bilingual SpLD and typical, and his score in the rating scale was above the mid-point (see table 110 below for details)

Table 110: Sam's scores in the school subject self-concept questionnaire

Self-concept questionnaire	N	School subject self-concept (x̄)	Standard deviation	% score on rating scale
Sam	1	3.67		66.75
Bilingual SpLD	27	3.68	0.63	
Bilingual typical	36	3.85	0.82	

5.4.10 Athletic self-concept

Sam was not as excited as I expected him to be. It seemed that Sam's withdrawn personality might be a reason for him not to be involved in any activity especially sporting ones. Sam said that; *"I love football but my friends don't let me take part as a lead player"*. Although Sam sounded negative in the interview he however, perceived himself rather high in the athletic self-concept questionnaire which was higher than the mean score of the bilingual typical group and fairly close to the mean score of the bilingual pupils with SpLD (see table 111 below for details).

Table 111: Sam's scores in the athletic self-concept questionnaire

Self-concept questionnaire	N	athletic self-concept (x̄)	Standard deviation	% score on rating scale
Sam	1	3.89		72.25
Bilingual SpLD	27	3.91	0.58	
Bilingual typical	36	3.83	0.79	

5.4.11 Social self-concept

How Sam responded during the interview and the way he responded to the questions reflected his diffident personal style. Sam was slightly uncomfortable and a little upset. He said; *"I have one friend, he speaks to me, but I do not have as many as my other friends, during the lunch break my classmates spend time together accept me".* Although Sam's response was negative this could hide his struggle to be sociable and make friends. Sam's score in the rating scale was average and his score in the social self-concept was lower than the bilingual SpLD and typical groups (see table 112 below for details). In my opinion Sam did reflect his actual feeling in the questionnaire and did not show any aspirations to be sociable. Sam's English and Arabic teacher shared with him the fact that he is unpopular pupil and they stated that; *"he is unsociable and he does not even make noises in the class like any normal student".*

Table 112: Sam's scores in the social self-concept questionnaire

Self-concept questionnaire	N	social self-concept (x̄)	Standard deviation	% score on rating scale
Sam	1	3.00		50 %
Bilingual SpLD	27	3.76	0.74	
Bilingual typical	36	3.68	0.67	

5.4.12. Foreign language intrinsic motivation

Sam has no idea of the importance of English and why he was learning it and whether he enjoyed it or not although Sam had mentioned a great deal during the interview that English was easier than Arabic and he liked it more for this reason. He said in this part; *"Arabic is more important than English",* But he could not

articulate what motivates him to learn the language. Despite that, Sam had a moderately high score in the language learning orientation scale/ intrinsic motivation but was lower than the mean score of the bilingual SpLD and typical groups (see table 113 below for details).

Table 113: Sam's scores in the language learning orientation scale/ intrinsic motivation

Language learning orientations scale	**N**	**Intrinsic motivation (x̄)**	**Standard deviation**	**% score on rating scale**
Sam	1	3.67		66.75
Bilingual SpLD	27	3.97	0.61	
Bilingual typical	36	4.14	0.69	

5.4.13. Foreign language extrinsic motivation

Once more, Sam appeared to be unaware of the importance of the English language in his life. He did not show any external reason for learning the language and when I asked him whether Arabic or English is more important for his future and university studying he said; *"Arabic is more important"*. This could explain why his score in the language learning orientation scale / extrinsic motivation was not high and was lower than the mean score of the bilingual SpLD and typical groups (see table 114 below for details).

Table 114: Sam's scores in the language learning orientation scale/ extrinsic motivation

Language learning orientations scale	**N**	**Extrinsic motivation (x̄)**	**Standard deviation**	**% score on rating scale**
Sam	1	3.00		50
Bilingual SpLD	27	3.87	0.72	
Bilingual typical	36	3.92	0.77	

5.5 Conclusions

To sum up Sam's case study, Sam had a specific difficulty in the strong versions of the discrepancy and the attainment model, yet he had SpLD in the weak version of the attainment model but showed no SpLD in the discrepancy model. Sam was mainly consistent in his opinions in the interview and the questionnaires

about whether he perceived himself negatively or positively. Secondly Sam was one of the few pupils according to my study who believed that Arabic was more difficult than English and that Arabic was much more important than English for the future. Despite his claim, Sam had a higher self-concept in all facets of the English self-concept in comparison to the Arabic self-concept. I postulated that Sam has the aspiration of having a good English, yet, he was very overwhelmed by the way Arabic is seen in his family. Lastly Sam was also one of very few students in this study who had a low score in the phonological Arabic non-word test. Regarding general self-concept, Sam looked like he lacked confidence during the interview which was also agreed by his English and Arabic teacher. Although Sam said nothing about the way he perceived himself as a person, he had a high score in the general self-concept questionnaire. In compliance with Arabic reading and spelling Sam was consistent in what he said about Arabic being difficult and he was in fact not good at it and had respectively low to average score in the reading and spelling self-concept questionnaire. His negativity was also shared by his Arabic teacher who said that; *"Sam was one of the few students who did not know the alphabetical letters at this age*. In the area of Arabic and English handwriting Sam was positive in the interview and the questionnaire, but this positivity was not shared by both English and Arabic teacher as they both believed that; *"he wrote non-sense".*

With respect to English reading and spelling, Sam was somewhat positive and felt good about his skills and reflected that by his high score in the questionnaire. Yet, his English teacher completely disagreed with him and stated that; *"Sam has severe difficulties".* Sam was consistent in his opinion concerning his math and other subjects in both the interview and the questionnaire. As for social relationships, Sam stated that he only had one friend which was also showed in his average score in the questionnaire and was also agreed by his teacher who said that he was an unsociable person. As I mentioned earlier in the personal details section (5.1), Sam had a strict education at home which in my opinion could be one of the reasons why Sam was withdrawn and had no courage to take any step to join his classmates particularly in the sports games where he complained that he was less engaged. Sam is an interesting case study and in my opinion demonstrated one of the learning struggles that many students have encountered from having specific literacy difficulties.

5.7 Case study: 6

Student's name: Inad **Age:** 12

Grade: 6 **Gender:** male

5.1 personal details

Inad was a 12-year-old boy who was bilingual (Arabic-English). Inad's first language was Arabic and it was the only language used at home. Inad was the youngest in his family and according to his teacher's claim he was slightly spoiled by his older siblings. Inad started his nursery in a state school and then he moved to a private school when he was in grade 3. Due to the fact that the state schools in Muscat do not focus mainly on the English language, Inad's parents decided to help him improve his English which is why they registered him at the British council to study English privately until he was ready to move to a private school.

5.2 Back ground information

Inad's teacher claimed that he does not like to pay attention to the lessons and he never did his homework nor did he prepare properly for his exams. Despite his carelessness, Inad's teachers believed that he was an intelligent boy and he had the capability to achieve at school, but he was always absent-minded and had little interest in studying and busied himself with anything else but learning. Inad's attainment at school was below the classmate's average learning in Arabic and in English literacy but he was average and above in other subjects.

5.3 Identification methods

Inad took (LASS 8-11) tests in both Arabic and English languages. His results are shown in table 2 below. The discrepancy results were calculated using the reasoning score of centile 19%; Z score (-0.878) and each other test mentioned in the table below. Inad had specific literacy difficulties in English in terms of the strong discrepancy model as he had a discrepancy between the reasoning and the single word reading, spelling, auditory memory and visual memory. Inad also had specific literacy difficulties in the attainment lowest 10% model and he scored low in single word reading and spelling along with some significant differences between reasoning and auditory and visual memory. With respect to the Arabic language, Inad had a low score in the sentence reading but his spelling score

was not in the lowest 10% and there was no discrepancy between either the phonological and memory tests or the reasoning. Thus Inad was considered not to have specific literacy difficulties in Arabic in both the discrepancy and the attainment model. To summarise the nature of Inad's SpLD in each language see table 115 below for details.

Table 115: summary of the nature of the SpLD in English and Arabic

	Discrepancy model	Low attainment model
English	Strong	Strong
Arabic	No SpLD	No SpLD

Table 116: Inad's scores on the LASS Arabic and English test

Area of measurement	**Test discerption**	**Cent-ile score**	**Z score**	**Z score difference**	***Discrepancy**
Reasoning	Non-verbal intelligence	19	-0.878		
English single word reading	Reading individual words out of context	1	-2.324	-1.4	($p < 0.01$)
English spelling	Spelling individual words that are spoken by the computer	2	-2.254	-1.3	($p < 0.01$)
Auditory memory	digit span	5	-1.645	-0.7	($p < 0.05$)
Visual memory	immediate recall of objects and their spatial positions	8	-1.405	-0.5	Not significant
Segmentation	segmentation and deletion of syllables and phonemes in real words	14	-1.08	-0.2	Not significant
English non-word	Reading individual non-words	1	-2.324	-1.4	($p < 0.01$)
Arabic sentence reading	Identifying the missing word from a choice of five alternatives.	10	-1.282	-0.4	Not significant
Arabic spelling	Spelling individual words that are spoken by the computer	20	-0.842	0.03	Not significant
Arabic non-word	Reading individual non-words	40	-0.253	0.62	Not significant

5.4 Qualitative analysis of Inad's interview

5.4.1 General self-concept (how he perceives himself as a person)

Inad was more than confident during the interview, in fact he was bragging a great deal about the fact that even though he had learning difficulties he was still fine with it and he said that his literacy difficulties were, *"...not a big deal".* When we continued to talk about the way he perceived himself, Inad said; *"I think I am okay, I do not have any problem; I am just like a normal guy".* By looking back at Inad's score in the general self-concept questionnaire it was apparent that he rated himself highly and he was quite positive with his very high score. Inad's score was higher than the mean score of the bilingual SpLD and typical groups (See table 117 below for more details) and his score in the rating scale was also very high. Along with Inad's consistency in the interview and the questionnaire, his English and Arabic teacher also shared his positivity and considered him a "*very confident outgoing student"*.

Table 117: Inad's scores in the general self-concept questionnaire

Self-concept questionnaire	N	general self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Inad	1	4.30		82.5
Bilingual SpLD	27	3.74	0.75	
Bilingual typical	36	4.00	0.82	

5.4.2 Arabic reading self-concept

According to the Arabic reading self-concept Inad proudly said; *"I know I am not good in Arabic reading, but this does not bother me at all".* Although Inad sounded careless about his Arabic literacy difficulties he did however mention many times that; *"I do not think that I am that bad either"*. Inad's mixed opinions were clarified more by his score in the Arabic reading self-concept questionnaire. He scored very high and also had a high score in the rating scale which was considerably above the mid-point. Inad's high score could be due to his aspiration to be good in Arabic especially in that he highly appreciated the Arabic language and observed it as a privileged language because in his words it is; *"the language of God, the language of the holy book".* Inad's score was also higher than the mean score of the bilingual SpLD and typical groups (see table 118 below for

details). Inad's Arabic teacher agreed to some extent with his aspirations to be good at Arabic. But according to her; *"Inad cannot be bothered to read, although I think he can do better if he studies hard".* During the interview and while Inad and I were talking about the English language, he mentioned a significantly important point which related to the Arabic language. He said; "*Arabic reading is so difficult because it does consist of those short vowels". Inad meant by this the diacritics which made each text even difficult if it was not included.* (Details about this was mentioned in the literature review in chapter 3 above). Inad mentioned precisely the struggle that each student had with the Arabic language, especially for those who have SpLD.

Table 118: Inad's scores in the Arabic reading self-concept questionnaire

Self-concept questionnaire	N	Arabic reading self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Inad	1	4.30		82.5
Bilingual SpLD	27	3.7	0.77	
Bilingual typical	36	3.9	0.78	

5.4.3 Arabic spelling self-concept

As for Arabic spelling, Inad perceived himself negatively and he demonstrated that; *"Arabic spelling is difficult".* Inad did not seem careless this time but he showed an average score in the spelling self-concept questionnaire. Inad's score was also lower than the mean score of the bilingual SpLD and typical groups (see table 119 below for details). Inad's teacher said that; *"because Inad never pays attention in the class and never prepares at home, his spelling skills are getting worse".* Apparently Inad's teacher shared his opinion toward his difficulties with spelling. Once again, Inad stated his opinion about Arabic writing in comparison to English writing. He said; *"In Arabic most letters are pronounced while reading, which makes spelling easier, but the rules in English are weird".* (Comparison about Arabic written versus English written was explained in the literature review in chapter 3 above)

Table 119: Inad's scores in the Arabic spelling self-concept questionnaire SpLD

Self-concept questionnaire	N	Spelling self-concept (x̄)	Standard deviation	% score on rating scale
Inad	1	3.00		50
Bilingual SpLD	27	3.73	0.79	
Bilingual typical	36	3.82	0.89	

5.4.4 Arabic handwriting

Inad started answering this question by saying; *"to be honest with you, my handwriting is quite bad, I prefer using my laptop, so why don't they bring us tablets or computers".* Inad's honesty about his handwriting skills was clearly shown in his very low score in the handwriting questionnaire. This was the lowest he had among all his scores in the questionnaire. It was also lower than the bilingual SpLD and typical group. His score in the rating scale was also extremely below the mid-point (see table 120 below for details). Inad's Arabic teacher had to agree with him, and stated that; *"his handwriting is preventing me from understanding his content and also makes him look like a messy boy".*

Table 120: Inad's scores in the Arabic handwriting self-concept questionnaire

Self-concept questionnaire	N	Arabic handwriting self-concept (x̄)	Standard deviation	% score on rating scale
Adam	1	1.50		12.5
Bilingual SpLD	27	3.72	0.93	
Bilingual typical	36	3.93	0.87	

5.4.5 English reading self-concept

Inad interestingly continued to compare the English and Arabic languages in each question. In my opinion this was very helpful to see how Inad perceived himself accordingly and on what basis he perceived himself in each language. According to Inad; *"English is easier than Arabic, I find it easier to read English, in Arabic you need to figure out not only the letters but the vocalised letters, unlike English it is straightforward".* Inad's results in the English reading self-concept was very

high which was higher than the bilingual SpLD and typical groups (see table 121 below for details). Inad's English teacher stated that; *"Inad has all the knowledge and the capability to be good in English but he is too bored to study, his reading is not bad but he can be much better if he works harder".* Overall Inad and his teacher shared the same opinion about his reading skills although his poor attention is what let Inad down according to his teacher.

Table 121: Inad's scores in the English reading self-concept questionnaire

Self-concept questionnaire	N	English reading self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	4.90		97.5
Bilingual SpLD	27	3.74	0.75	
Bilingual typical	36	4.0	0.82	

5.4.6 English spelling self-concept

Inad demonstrated his concern about English spelling difficulties as he compared the reading differences between Arabic and English. Inad again made this comparison concerning the spelling. He stated that; "*writing in English is more difficult than Arabic especially if I am not prepared. In Arabic most letters are pronounced while in English it is different, some letters you cannot hear but you still need to write them, also the names are very difficult to write".* Although Inad expressed his spelling difficulties he was also convinced that his spelling skills were good. Inad showed a level of understanding for the two languages and he was aware of what made things difficult for him. Beside that, his self-concept was not affected by these difficulties and he still saw his spelling skills as being good. To prove that, Inad's scores in the spelling self-concept questionnaire were high and on the top of the mean score of the bilingual SpLD and typical scores (see table 8 below for details). Inad's English teacher thought that; "*his spelling is not very good because he never works hard and he makes the same mistakes.*

Table 122: Inad's scores in the English spelling self-concept questionnaire

Self-concept questionnaire	N	English spelling self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	4.33		83.25
Bilingual SpLD	27	3.73	1.04	
Bilingual typical	36	4.17	0.88	

5.4.7 English handwriting self-concept

Inad was slightly embarrassed this time when I asked him about his handwriting maybe because he needed to repeat that his English handwriting is also not good. Inad seemed to have a problem with his hand writing and he reflected that in his low score in the handwriting self-concept questionnaire. He had an extremely low score and his score in the rating scale was also way beneath the mid-point. Inad scored lower than the mean score of the bilingual typical and SpLD groups (see table 123 below for details). Inad's English teacher said that; "I wish his handwriting was good. It is a mess, and this makes understanding his ideas extremely difficult". In general, Inad and his teachers shared the same opinion about his spelling difficulties.

Table 123: Inad's scores in the English handwriting self-concept questionnaire

Self-concept questionnaire	N	English handwriting self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	1.67		16.75
Bilingual SpLD	27	3.91	0.97	
Bilingual typical	36	4.04	1.03	

5.4.8 Maths self-concept

Inad was very confident about his maths skills, he proudly stated that; "I am very good at maths and my teacher always says so to me". Inad's score in the maths self-concept was very high which demonstrated his positive perception about his maths skills. Inad also had higher scores than the mean score of the bilingual

SpLD and typical groups (see table 124 below for details). Because I could not meet Inad's maths teacher, I had the opportunity to ask his English teacher who was very aware of his achievements in all subjects. She said; *"I meet monthly with all the teachers to discuss the student's attainment and Inad was one of the good students in maths"*. Overall there was consistency between Inad and his teacher's opinions.

Table 124: Inad's scores in Math subject self-concept questionnaire

Self-concept questionnaire	N	Math self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	4.90		97.5
Bilingual SpLD	27	3.84	0.75	
Bilingual typical	36	3.77	0.87	

5.4.9 School subject self-concept

There was no doubt by now that Inad was proud of himself and his school attainment. This also was extended to his school subjects. Inad was also positive about other subjects such as sciences and arts but particularly proud about his religious education classes. He said; *"it is important to memories the Qur'an and to know our religion"*. Inad was not the only student in my study to focus on religious studies but what was important was the fact that they enjoyed learning it and they never considered it a difficult subject to master. Inad also scored very high in the school subject self-concept which was also higher than the mean score of the bilingual SpLD and typical groups (see table 125 for details). As mentioned in the section above, Inad's English teacher was aware of his school attainment and she agreed that Inad is good in many subjects but he is too careless to give more time to his learning and education.

Table 125: Inad's scores in the school subject self-concept questionnaire

Self-concept questionnaire	N	School subject self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	4.67		91.75
Bilingual SpLD	27	3.68	0.63	
Bilingual typical	36	3.85	0.82	

5.4.10 Athletic self-concept

Inad gave me the impression that talking about sports was the best part of the interview for him. He was very enthusiastic and excited to tell me more about his achievements. Inad said; *"I love sport, I am good, but not as good as Adam, he is the best in the class when it comes to playing football. I practice a lot to be as good as him.* Surprisingly enough, Inad scored himself low in the athletic self-concept questionnaire and his score in the rating scale was below the min-point. These results made me question whether Inad did this because he was comparing himself to the best player in the class and thus perceived himself low, or was it because he did not actually have the skills to score himself high enough. Apparently Inad's score was lower than the mean score of the bilingual SpLD and typical groups (see table 126 below for details).

Table 126: Inad's scores in the athletic self-concept questionnaire

Self-concept questionnaire	N	athletic self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Inad	1	2.89		47.25
Bilingual SpLD	27	3.91	0.58	
Bilingual typical	36	3.83	0.79	

5.4.11 Social self-concept

Inad's outgoing personality appeared vividly during the interview, and it was not a surprise that Inad had positive attitudes about his peer's relationships. Inad said*; "I have friends, and I spend most of the time with three of them, we are very close to each other".* Inad was also positive in the social self-concept

questionnaire and he scored himself very high and it was also higher than the mean score of the bilingual SpLD and typical groups (see table 127 below for details). Inad's score in the rating scale was higher than the mid-point. Inad's English and Arabic teacher also confirmed that Inad is a very sociable student and he has many friends. This meant that Inad's teachers shared his positive opinion toward his social relationships.

Table 127: Inad's scores in the social subject self-concept questionnaire

Self-concept questionnaire	N	social self-concept ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	4.33		83.25
Bilingual SpLD	27	3.76	0.74	
Bilingual typical	36	3.68	0.67	

5.4.12. Foreign language intrinsic motivation

Inad could not express an opinion as to whether he enjoyed learning the English language because he could not stop comparing the Arabic and the English languages. He indicated that he; "loved English because it is easier than the Arabic language". He also stated that *"because the people who invented the internet speak English, even if we search in Arabic we get results in English".* According to his quote, Inad was saying that he was learning the language for his own benefit which was helpful for him when he surfed the internet to have some knowledge of English. Despite that Inad did not have a high score in the intrinsic motivation scale relative to the group means, but it was not low either. Inad however scored lower than the mean score of the bilingual SpLD and typical groups (see table 182 below for details).

Table 128: Inad's scores in the language learning orientation scale/ intrinsic motivation

Language learning orientations scale	N	Intrinsic motivation ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	3.67		66.75
Bilingual SpLD	27	3.97	0.61	
Bilingual typical	36	4.14	0.69	

5.4.13. Foreign language extrinsic motivation

Inad believed that he was learning the English language because; *"in Oman there were a great deal of employees who did not speak Arabic, they came from India for example, it is not good not to know English"*. Inad was making an interesting point which recognised the multicultural nature of Oman which is growing very fast. Inad had a high score in the language learning orientation scale/ extrinsic motivation which was higher than the mean score of the bilingual SpLD and typical groups (see table 129 below for details).

Table 129: Inad's scores in the language learning orientation scale/ extrinsic motivation

Language learning orientations scale	N	Extrinsic motivation ($\bar{x}$)	Standard deviation	% score on rating scale
Adam	1	4.33		83.25
Bilingual SpLD	27	3.87	0.72	
Bilingual typical	36	3.92	0.77	

5.5 Conclusions

Inad was a very proud and confident boy. He showed a good understanding of the Arabic and the English language. Inad had only specific literacy difficulties in English but not in Arabic, although he had a low score in the Arabic sentence reading test.

Along with the quotation that I inserted in each section, Inad made other interesting points which showed his high self-concept as a person and as a learner. To conclude, Inad said when expressing his feelings toward his learning; *"sports makes me happy, Arabic makes me happy, and all the subjects I like them all, I want to have a bright future" and I love to come to school, I have never get absent from school, only in rare occasion when I went to the hospital".* This positivity that Inad clearly revealed in his bold statements, was also agreed with by his Arabic and English teacher but what let him down was his carelessness. To summarise Inad's perception in each module I shall start with Arabic reading. Inad was very positive and even slightly "arrogant" when he said that; *"even if I am not good, this does not bother me, I don't feel down because others are less*

than me and they also feel okay so why should I feel down? "Inad scored himself high in the questionnaire, and his teacher agreed with his capabilities if only he worked harder. In spelling Inad declared that spelling was difficult and he scored low in this part. Inad's teacher also stated that his spelling was getting worse and would not improve if he continued to be careless. With respect to his Arabic and English handwriting, Inad perceived himself negatively along with his teachers. When it came to the English reading and writing, Inad compared the difficulties of each language and concluded that English was easier than Arabic in terms of reading but more difficult than Arabic in terms of writing. His examples of the differences between the two languages are what made him an interesting case, as I was looking to see if any students were aware of these differences. In reading which was "easier" for him, Inad was positive about his skills and had a high score and his teacher agreed that he is able to be as good as his peers. In terms of writing which was *"difficult"* he was not completely positive but scored high in the questionnaire and it seemed that his teacher did not share his positivity.

Concerning maths, school subjects and athletics, Inad was extremely confident and he perceived himself very high in comparison with the bilingual SpLD and typical groups, and his teacher shared this positivity. Inad was, nevertheless, low in his score regarding the athletic self-concept. Inad's social life was key in this case study. Inad and his teachers agreed with each other about his outgoing personality and the way he perceived himself. As proof of a good side of his personality Inad said; *"I feel happy for my friends because they are better than me"*. Finally, Inad showed his sincere feeling toward the Arabic language but he did not deny the importance of the English language in his life whether for his own knowledge or for communicating with other people in his country. Finally, it was interesting to see how sometimes learning difficulties are not the only reason for a pupil to have negative feelings. His case also shows that a person's self-concept can be impacted in one single area and not other areas. Which is why Inad was positive and negative in different areas of the same language.

5.6 Data analysis: Cross- case

Multiple case studies provide the researcher with the opportunity to study a multiple phenomenon, which happens to be the focus here on the monolingual

and the bilingual pupils who have specific literacy difficulties. Multiple case-studies can also help discover the differences and similarities that occur among the pupils in various contexts. Multiple case studies also enable the researcher to look beyond the single case to obtain a holistic understanding of a phenomenon. In this study the emphasis is on the self-concept, motivation for learning English as a foreign language, and the phonological differences between English and Arabic. Stake (2006) stated that case studies can help to study a phenomenon by bringing the results from the single case experiences to the research questions. Furthermore, Stake (2006) postulated that although each case is important in its own right, the results of cross-case analysis remain the most significant knowledge that we can obtain from a research study. This cross case analysis focuses on the consistency between the pupil's interview, the pupil's questionnaire and the English and Arabic teachers' interview in terms of the:

a. General self-concept
b. Arabic reading self-concept
c. English reading self-concept
d. Social self-concept
e. Intrinsic and extrinsic motivation.

5. 6 .1 The consistency in terms of the general self-concept

Regarding the general self-concept, there is a variation in terms of consistency between the 6 cases regarding the pupil's interview, the pupil's questionnaire, and the English and the Arabic teacher's interview. The only pupil who displayed consistency between the interview, the questionnaire and both the English and the Arabic teacher was Inad. Inad showed a positive general self-concept both within the interview and throughout the questionnaire which was then supported by his English and Arabic teacher as they described him as *"very confident outgoing student"*. Another pupil, (Majd) only displayed consistency between his interview, his questionnaire and his Arabic teacher, while the English teacher had a different perspective of Majd's general self-concept. Adam moreover, had a positive general self-concept, which was consistent with both his language teachers' opinions (Arabic-English) but, surprisingly he scored average on the questionnaire which did not reflect his perception of himself. Sarah and Sam both

had negative views of themselves according to the interview while they had higher scores in the questionnaire which uggested a high aspiration . Sarah and Sam were consistent with their English and Arabic teachers' opinions as they also both viewed them as being less confident in their selves. Rami is the only pupil who was in the middle in terms of consistency, he had a mixed perception of himself during the interview and he could do not figure out whether he saw himself in a positive or in a negative way, and this was reflected in his questionnaire as he scored himself in the middle of the rating scale. This however was not consistent with his teachers' opinions as both the English and the Arabic teachers perceived him negatively in terms of the general self-concept. (see table 130 below for more details about the consistency between each pupil's interview, questionnaire, Arabic and English teacher interview). In conclusion there was neither a consistency among each case in terms of the interview, the questionnaire and the Arabic and English teacher's interview, nor among the 6 cases as each one showed a different consistency.

Table 130: Cross-sectional case studies in general self-concept

	Pupil's Interview	**Quest.** **Rating scale**	**Pupil's Arabic teacher interview**	**Pupil's English teacher interview**
Majd	Very positive	75%	*"He is very confident"*	Disagreed with both Majd and his teacher
Rami	mixed perception of himself	65%	Negative	Negative
Adam	Positive	52.5% Low perception of himself	Positive	Positive
Sarah	Negative	95% High aspiration of himself	Negative	Negative
Sam	Negative	77.5% High aspiration of himself	Negative	Negative
Inad	Positive	82.5%	Positive "*very confident outgoing student"*	Positive

5.6.2 The consistency in terms of Arabic self-concept

Regarding the Arabic self-concept, there was consistency between the pupil's questionnaire and the pupil's interview only among 3 pupils (Majd, Adam and Sarah). These 3 pupils were positive about their Arabic self-concept and they perceived themselves positively in the questionnaire, scoring highly according to the rating scale (see table 2 for more details). On the other hand, there was no consistency between the 3 pupils results and their Arabic teacher's opinion as she perceived them negatively (see the table below for more illustration). Sam was the only pupil who was consistent in his interview and questionnaire and with his Arabic teacher's view of him. He showed that he perceived himself negatively and so did his teacher. Rami's Arabic self-concept varied between his interview and his questionnaire; he was slightly negative about his Arabic achievement yet, he showed a high score in the rating scale. Rami's inconsistency between the questionnaire and the interview appeared also in the Arabic teacher's opinion about him. She also was not consistent with her opinion toward Rami; she was sometimes very negative about his achievement and other times she believed that he would achieve only if he worked harder. The last of the pupils, Inad, also has a mixed opinion about himself during the interview and he was inconsistent; saying: *"I am not good but not bad either".* However, this inconsistency did not appear in his questionnaire and he scored himself highly according to the rating scale (see table below for details). Inad's Arabic teacher was clear that he is not a high achieving pupil as he could not be bothered to read. In general, there were inconsistencies between the pupils and their Arabic teacher's opinions and there were mixed opinions amongst the pupils themselves towards their Arabic reading self-concept.

Table 131: Cross-sectional case studies in Arabic reading self-concept

	Pupil's Interview	**Quest.** **Rating scale**	**Pupil's Arabic teacher interview**
Majd	positive	75%	She has a contradictory answers, but she reflected mostly a negative opinion
Rami	Negative	87.5%	Not very negative, not positive either. "He is an average student and can do better if he worked hard"
Adam	positive	70%	Negative "He cannot read"
Sarah	Positive	97.5%	Not very positive "She is not bad at all, but her voice is very low"
Sam	negative	32. 5%	Very negative *"Sam cannot read the alphabetical letters "*
Inad	Mixed opinion "I am not good but not bad either"	82.5%	negative "He cannot be bothered to read; he can do better it he wants to"

5. 6.3 The consistency in term of English reading self-concept

Out of the 6 pupils, 3 of them (Rami, Sam and Inad) had consistency in their English reading self-concept between the interview and the questionnaire. They were positive in the interview and they scored high in the self-concept questionnaire according to the rating scale (see table 132 below for more details). Their English teacher however was not consistent with the pupil's perceptions about themselves and she was negative regarding their English reading achievement (see the table below for more illustration on how the English teacher perceived her pupils in the English reading). Another pupil (Majd) was also positive in his perception about his English reading achievement during the interview but he scored really low in the self-concept questionnaire. His low score was consistent with his English teacher's opinion as she was very negative concerning his achievement and she believed that "he cannot read at all, even with easy words". Adam was fairly consistent between his interview and his questionnaire. During the interview he compared himself to his parents, which

reflected that he felt he could not keep up with their good English. His score was also not very high according to the rating scale. His English teacher's opinion was also consistent with how Adam felt about himself regarding English reading and she also believed that he is; *"not very good and can do better, but he seems to lack motivation in learning to read English".* The remaining pupil (Sarah) was negative about her English reading during the interview which was consistent with the view of her English teacher as she also believed that Sarah could barely read a word. Sarah nevertheless, had a high score in the English reading self-concept questionnaire which was not consistent with her views during the interview nor with her English teacher's opinion. In general there was one case when there is consistency between the 3 elements while the rest showed a variation in terms of consistency between the interview, the questionnaire and the teacher's interview. (see table 132 below for more details).

Table 132: Cross-sectional case studies in English reading self-concept

	Pupil's Interview	**Quest. Rating scale**	**Pupil's English teacher interview**
Majd	positive English is as good as my Arabic	52.5	Negative/ he cannot read at all, even easy words"
Rami	positive "my English is good now".	70	Negative "I think he has a real problem with learning"
Adam	Slightly negative "I like to read books like my parents but I cannot".	60	Mixed opinion, mainly negative I think he is able but he refused to study, hence his scores in reading are terrible".
Sarah	Negative "even when I try hard I can never understand why it is pronounced this way'	72.5	Negative "she can barely read simple words'.
Sam	Positive I am good, easier than Arabic though".	77.5	Negative "he has no clue about English reading".
Inad	Positive "I find it easier to read English	97.5	Negative "Inad has all the knowledge and the capability to be good in English but he is too bored to study,

5.6.4 The consistency in term of social self-concept

In terms of the social self-concept, Rami, Adam and Inad had consistency between the interview, the questionnaire and both the English and the Arabic teacher's opinions. Thee pupils were positive about their social self-concept and they scored themselves highly in the social self-concept questionnaire according to the rating scale. Their English and Arabic teachers moreover were also positive about the pupil's social interaction and they considered them to be sociable and outgoing. Sarah and Sam also showed consistency in terms of the social self-concept between the interview, the questionnaire and both the English and the Arabic teachers' opinions, yet both were negative about their social life as they claimed to only have one friend to be with during the school day. Their teachers also perceived them to be shy and unsociable. According to Maj the consistency was between his questionnaire and his English and Arabic teachers but was different from his interview. According to the interview Maj perceived himself as a sociable person and had enough friends to be with; this however was not represented in his low score in the social self-concept questionnaire and neither did the teachers view him as a sociable person and both agreed that "he is always alone" and that they never saw him sitting with his friends during lunch time. In general, there is a consistency between the pupils and their teachers in terms of social self-concept except for one pupil.

Table 133: Cross-sectional case studies in social self-concept

Student's name	Quest. Rating scale	Pupil's Interview	English teacher's interview	Arabic teacher's interview
Majd	58.25%	positive	Negative/ "outsider, as a new student"	Negative/ "I have never seen him sitting with his friends; always alone"
Rami	90.2 %	Positive	Positive /English stated his popularity	Positive/ He is close to the older boys who behave inappropriate
Adam	77.75%	He had mixed feeling. "I do not have many friends, I have a couple of close friends	Positive he is outgoing and very active.	Positive he is outgoing and very active.
Sarah	52.75%	Negative "I have only one"	Negative " shy "	Negative never saw her engaging with other friends."
Sam	50%	Negative "I have one friend"	Negative "he is unsociable"	Negative "he is unsociable"
Inad	83.25%	Positive "I have many friends"	Positive very sociable student	Positive He has many friends.

5.6.5 The consistency in terms of intrinsic and extrinsic motivation

In terms of the intrinsic and extrinsic motivation, the 6 pupils showed different results and there was no consistency between the interview and the questionnaire in some cases. In terms of the intrinsic motivation Majd, Rami and Inad for instance showed an internal reason for learning the English language and they were also consistent between the questionnaire where they scored highly in the rating scale and the interview. Adam and Sam were inconsistence between what they said during the interview and the questionnaire. They showed a reasonably high score in the intrinsic motivation scale but they were negative about learning English for their own satisfaction for instance. Sarah on the other

hand was consistence between the interview and the questionnaire. She scored average in the questionnaire and she was neither negative nor positive about learning English for internal reasons. In summary, although not all the cases showed a consistency between the scale and the interview, the reasons behind the internal motivation varied between accomplishment motivation and stimulus motivation. According to the extrinsic motivation for learning English, 5 out of 6 pupils showed external reasons for learning English. This however, was not consistence with their scores in the extrinsic motivation scale. They were consistent with their questionnaire although the scores were not as high as the intrinsic motivation (see table 134 below for more details). Majd for instance had an average score in the scale but was so positive about learning to read English to impress his parents and make them feel happy for being successful. Sam had an average score in the scale but he did not show any external reason for studying the language. This was the same when he did not show any external reason to learn the language. All the answers that I obtained from him suggested that Arabic is much important to him than English. Rami, Adam, Sarah and Inad showed an external reason for learning the language although each had their own reasons for learning the English language.

Table 134: Cross-sectional case studies in terms of intrinsic and extrinsic motivation

pupil's name	Questionnaire	Pupil's interview Intrinsic motivation	Questionnaire	Pupil's interview Extrinsic motivation
Majd	91.75	"Because I Omani resident" internal	50%	**I want to improve my English to make my parents happy,** plus I feel so embarrassed in the classroom when I do so many mistakes while reading" External
Rami	95.75	he wanted to learn the language to avoid any kind embarrassment internal	62.5	English helps me more than Arabic for the future, if I want to study abroad or at the university". External
Adam	66.75	Adam did not mention any internal satisfaction from learning English or even the joy of benefiting from it and learning new things. No internal	75	I need to learn English if I want to study abroad, or speak to people who don't understand Arabic". External
Sarah	54.25 '	English is difficult, I spend my time at home reading - but still difficult'. (no internal reason)	66.75	English is good for when I want to go to the university' External
Sam	66.75 .	Arabic is more important than English", But he could not articulate what motivates him to learn the language No internal	50	"Arabic is more important He did not show any external reason for learning No external
Inad	66.75	loved English because it is easier than the Arabic language" internal	83.25	"in Oman there were a great deal of employees who did not speak Arabic, it is not good not to know English". External

5.7 Conclusion

Across the 6 cases, there seems to be a general inconsistency between the pupil's interview and their questionnaires in terms of the general self-concept, English and Arabic self-concept and the intrinsic and the extrinsic motivation for learning English a foreign language. In many cases the pupils were negative about their literacy self-concept according to the questionnaire, but they perceived themselves positively in the interview. However, it seems that there was more consistency between the 6 cases on social self-concept than literacy ones, which is one of the key findings of the study. This consistency between the pupils' interview and the questionnaire is also supported by the perception of their English and Arabic teachers. Accordingly, I postulated that the inconsistencies in the literacy area were related to their difficulties and it may reflect their defensiveness about their difficulties and they might not have wished to reveal their struggle in the interview. In terms of the intrinsic and the extrinsic motivation for learning English as a foreign language, the 6 cases also revealed an inconsistency between the questionnaire and the interview although the results revealed that they are more enthusiastic about learning English for external reasons to please their parents as opposed to learning English purely for the pleasure of knowledge or as an accomplishment. This may sound inevitable considering that they struggle with learning the English language.

Chapter 6: Discussion

6.1 Introduction of the chapter

The purpose of this study is to understand and examine the self-concept of bilingual pupils who have specific literacy difficulties in comparison to their peers who are monolingual and also have specific literacy difficulties. The pupils were between 8-12 years old in public and private mainstream schools in sultanate of Oman. The main area examined is the hierarchy of the self-concept focused on each facet of the self, moving from the literacy (reading, writing and spelling) both in English and Arabic for the bilingual pupils and in Arabic only for the monolingual pupils, toward maths and other subject's self-concept. It also measures the non-academic self-concept such as the athletic and the social self-concept. After that I examined the motivation to learn a foreign language among the bilingual pupils who have specific literacy difficulties, both intrinsic and the extrinsic motivation, and compared that to the bilingual typical literacy groups. In order to compare the results of the monolingual and the bilingual pupils who have specific literacy difficulties I also examined the self-concept of the bilingual and the monolingual pupils who are typical literacy levels. The comparisons between the pupils were divided into four groups; The data were analysed in two phases; the first phase was the survey phase where I used the Self- Description Questionnaire by Herb Marsh, and the language learning orientation scale Intrinsic/ extrinsic motivation which was designed for the purpose of this study and used with the bilingual groups only. The second phase was the case study phase which examined the same areas of focus as in phase 1using different methods. I interviewed 6 pupils and their English and Arabic teachers by using a semi-structured interview. The 6 pupils chosen to represent the pupils of this study were those who have SpLD in both languages (Arabic-English) and others who had SpLD in English only. It is also important to mention that no pupil in this study has SpLD in Arabic only. The last question to answer in this study was about the differences between English and Arabic phonology in order to see the differences between Arabic and English and to see if the phonological disorder model of identification is as feasible for the Arabic language as it was for the English language. Strengths and limitations for each phase of the study are also discussed along with contribution

to knowledge. Finally, this chapter closes with a conclusion about the whole study which includes recommendations for research and practice.

6.2 Phase one: Survey

The first phase of this study is the survey where I used the Self- Description Questionnaire for all the participants who were monolingual and bilingual pupils, and the language learning orientation scale Intrinsic/ extrinsic motivation with the bilingual groups only (SpLD-Typical). This phase summarises specific findings in relation to the main and subsidiary research questions, then analyses the data and discusses whether the findings are consistent or inconsistent with other studies. The comparison in this phase was divided into 5 sub-sections. The first comparison is between the monolingual SpLD vs. Bilingual SpLD; then the monolingual SpLD vs. monolingual typical literacy levels; the bilingual SpLD vs. bilingual typical literacy levels; and finally between the monolingual typical literacy levels vs. the bilingual typical literacy levels. I ended this phase by drawing a comparison between the Arabic and the English phonology, particularly the non-sense words.

6.3 Summary of key findings:

This paragraph presents the key findings of the two phases of this study which are the survey and the case study. In the survey, comparisons were conducted among four different groups:

6.3.1 Comparison (1): The comparison of the self-concept between monolingual SpLD vs. bilingual SpLD:

The results obtained from the self-description questionnaire showed that there were no important differences between the monolingual SpLD group and the bilingual SpLD group in any facets of the self-concept. The monolingual pupils did not apply the language learning orientations scale as it was only designed for the bilingual pupils; thus no comparison was made between the two groups in terms of the motivation for learning a second language.

6.3.2 Comparison (2): The comparison of the self- concept between monolingual SpLD vs. monolingual typical literacy levels.

The results obtained from the self-description questionnaire showed that there was a significantly lower self-concept in Arabic self-concept, Arabic handwriting, Arabic spelling self-concept, general school self-concept among the SpLD monolingual group in comparison to their peers who are typical literacy level. Again the monolingual pupils did not apply the language learning orientations scale.

6.3.3 Comparison (3): The comparison of the self- concept between the bilingual pupils with SpLD and bilingual typical literacy levels pupils.

The results obtained from the self-description questionnaire showed that the only significant differences shown were in the English reading self-concept and the English spelling self-concept, where the SpLD bilingual group had a lower self-concept in comparison to the bilingual pupils who are typical literacy level. However, there were no significant differences shown between the two groups in terms of the intrinsic and the extrinsic motivation for learning a foreign language.

6.3.4 Comparison (4): The comparison of the self- concept between monolingual typical literacy levels vs. bilingual typical literacy levels.

The results obtained from the self-description questionnaire showed that there were higher significant differences in Arabic reading self-concept, Arabic handwriting self-concept, and Arabic spelling self-concept among the monolingual typical literacy levels in comparison to their bilingual peers who are also typical literacy level.

6.3.5 Comparison (5): Phonological differences between English and Arabic among the bilingual SpLD group vs the typical literacy level group.

According to the phonological non-sense test used in this study, which was part of LASS (8-11) in Arabic and in English. The results showed that the bilingual pupils who have specific literacy difficulties had lower phonological awareness in English compared with a higher phonological awareness in the Arabic language.

6.4 Discussion of the findings

6.4.1 Main comparison: The comparison of the self-concept between monolingual SpLD vs. bilingual SpLD

The main comparison in this study was between the monolingual and the bilingual pupils who have SpLD. The results showed that there were no significant differences at all in any facet of the self-concept between the two groups. This result was rather surprising as I anticipated from my experience that the bilingual pupils with SpLD are more likely to have lower self-concept than the monolingual pupils at least in the English speaking self-concept. From analysing the data, I assume that there are many factors that could contribute to these results. First of all, the bilingual pupils in this particular study may not be considered fully bilingual if we consider the definition by Baker (2006) and Martin (2009) who define bilingualism as someone who has access to and uses two languages on a daily basis. According to the bilingual pupils in this study, who were mainly from different economic levels, learning English is considered very important but not commonly used during the day unless they need to. Instead, English is used during certain classes such as the sciences and maths. English language is also used at least two hours a day in school as the main second language but again the pupils neither communicate in English nor use it extensively during the school day. Another factor I observed during the data collection period was that the majority of the pupils whom I assessed were not identified before as having literacy difficulties by the school, and had never been labelled or treated as low achievers. As a result, the pupils believed that many students struggled with school attainment and it is normal to be below average especially when learning the English language, as English was seen as difficult by most pupils. Furthermore, others denied that they had any difficulties in learning the languages and they considered themselves as achieving as well as others despite the fact that their school grades were significantly lower then their classmates. As a result, I assume that the pupils did not care much about their attainment levels, thus they obtained a high score in all facets of the self-concept compared to the scores obtained by the bilingual pupils who are typical literacy levels.

Research into the self-concept of bilingual pupils with literacy difficulties has been very limited and I have not come across any study that covered the hierarchy of the self-concept among the bilingual pupils no matter what language they study.

Furthermore, the literature on self-concept in learning difficulties among the bilingual Arabic-English in the Middle East seems non-existent, although I have been searching for the last 5 years, since 2012, before finishing this chapter. The only literature that I can relate to in this study is the studies done with children with different learning difficulties although no study has covered the whole hierarchy of the self-concept by starting from the academic to non-academic self-concept as this particular study did. On this account I cannot compare studies where the participants are particularly monolingual with my study where the participants are a mixture of monolingual and bilingual.

6.4.2 Comparison (2): The comparison of the self- concept between monolingual SpLD vs. monolingual typical literacy levels.

In the internal/external frame of reference (I/E) model by Marsh (1986), it is postulated that, pupils are involved in what is called dimensional comparisons. In this comparison the pupils compare their own attainment in one subject with their attainment in other subjects. This comparison moreover, can result later in negative self-concept that starts in one subject, reading self- concept for instance, and makes its way to other areas such as verbal self-concept.

Accordingly, it is postulated that the results obtained from this study suggest that the pupils who have low self-concept in one facet will have it in the other facet which was not the case here. The results according to the the self- concept between monolingual SpLD vs. monolingual typical literacy levels showed that the monolingual pupils with specific literacy difficulties had significantly lower scores in the Arabic reading self-concept, Arabic handwriting, Arabic spelling self-concept, and general school self-concept than the monolingual pupils who are typical literacy levels. However, there were no differences in maths, athletic or social self-concept. This means according to the (I/E) model by Marsh that the pupils should show a negative self-concept in maths for instance but this was not the case.

The low scores obtained in the Arabic literacy suggest that pupils who have specific literacy difficulties judge themselves in comparison to their peers who are more achieving as the big-fish-little-pond effect BFLPE effect suggested. The theoretical model underlying the BFLPE suggests that although individual accomplishment is positively related to academic self-concept, class- and school-average accomplishment show a negative association; this negative association is characteristic of the effect (Marsh, 2009).

Although the monolingual pupils who have SpLD in this study had not been labelled before as someone are lower achievers, they still compared their literacy achievement to their peers. Due to the fact that studies in the area of self-concept are very wide and varied, many contradictory results are found. Also a few studies did not focus on the specific areas of attainment such as reading or writing self-concept but rather focused more on the wider areas of the self, such as the academic self-concept. This is why it is difficult to find studies that are relevant to this particular study; on this account I compared the academic self-concept to the results obtained in this study. A study conducted by Hagborg (1996) among two groups of pupils who have 'learning difficulties" in grades 5 through 8 and their peers who had typical literacy, showed that the pupils who are normally achieving had higher scores in the academic self-concept in comparison to their peers who had "learning disabilities". This study lead credence to other longitudinal studies by Bear *et al.*, (1993); Vaughn *et al.* (1996) and another cross-sectional studies conducted by Grolnick & Ryan, 1990; Akande, 1997; Hagborg, 1998, 1999; Harter *et al.*, 1998; Stanovich *et al.*, 1998; Stone & May, 2002 who also found that pupils who have "learning disabilities" have lower scores in academic self-concept in comparison to their peers who are normally achieving. Leondari, 1993; Vaughn *et al.*, 1996 also found that pupils with "learning difficulties" have more negative academic self-concept than their low-achieving peers. These studies were consistence with my findings if we consider the academic self-concept representative of reading, writing and spelling self-concept. On the other hand, it was clear that there was inconsistency between the results of my study and Vaughn and associates (1992) study. In their longitudinally study which followed different groups of pupils who have learning difficulties, were low achievement and average to high achievement, from kindergarten through to grade 4. The results showed that there are no significant differences in academic self- concept between the groups.

In terms of the social self-concept the results showed the three were no differences between the monolingual SpLD group and the monolingual typical literacy levels group. These results were consistent with a number of other studies that found that there is no significant difference in social self- concept between the two groups (Kistner *et al.* 1987; Cooley & Ayres 1988; Ayres *et al.* 1990; Priel & Leshem 1990; Raviv & Stone 1991; Bear *et al.*, 1991,1993; Vaughn *et al.* 1992; Clever *et al.* 1992; Juvonen & Bear 1992; Montgomery 1994; Hagborg

1996, (1999); Heath & Wiener 1996; Tabassam & Grainger 2002; Gans et al. 2003). On the other hand, some other studies found that pupils who have "learning disabilities" have more negative social self-concept than their non-achieving peers (Kistner & Osborne1987; La Greca & Stone 1990; Halmhuber & Paris 1993; Smith & Nagle 1995; Harter et al. 1998; Crabtree & Rutland 2001).

In regard to the general self-concept the results also revealed that there are no differences between the monolingual SpLD group and the monolingual typical literacy levels group. This is consistence with Reschly & Christenson (2006); Gadeyne et al. (2004); Chapman et al. (2004); Gans et al. 2003; Kistner et al. (1987); Ayres et al., (1990); Clever et al. (1992); Halmhuber & Paris (1993); Bear et al. (1993), (1998); Montgomery (1994); Sabornie (1994); Smith & Nagle (1995); Bear & Minke (1996); Hagborg (1996), (1999); Stone & May (2002) who found that there were no significant differences on measures of global self-concept between pupils with and without "learning disabilities". In contrast, these studies are not consistent with Bataineh & Gwanmh 2005; Bear & Minke 2006, who found that pupils with "learning disabilities" have positive academic self-concept and they saw themselves as their peers who do not have any learning problems.

6.4.3 Comparison (3): The comparison of the self- concept between the bilingual pupils with SpLD and bilingual typical literacy levels pupils.

The results showed that the bilingual pupils who have specific literacy difficulties had significantly lower self-concept than the bilingual pupils who are typical literacy levels in the English reading self-concept and the English spelling self-concept and general school self-concept. It is interesting to see that none of the bilingual pupils who had SpLD had lower self-concept in any area of the Arabic literacy self-concept, which could be due to various reasons.

Firstly, I postulated that the pupils see the Arabic language as an easy language because it is their mother tongue. They always refer to this opinion whenever I asked about their Arabic language even when I asked them about writing or spelling. English on the other hand is perceived differently and they might be seen it as a language that they are obliged to learn, accordingly they have a negative self-concept in each area of literacy associated with it. It is also worth mentioning that learning a new language requires many skills that take many developmental stages which are hierarchical and overlapping (Foster & Miller, 2007). These new

skills may not be the same in both English and Arabic which is why the bilingual pupils who have literacy difficulties find it difficult and it subsequently has an impact on the reading, writing and speaking self-concept.

The literature on self-concept of pupils who have "learning difficulties" consistently finds that pupils with "learning difficulties" show lower self-concepts in academic areas than the non-LD pupils (Bear et al., 2002). Thus, these results did not explain whether the lower self-concept comes from having LD or from the labels they get from significant others or whether these perceptions are related to the fact that they are low-achieving and not due to being labelled or treated as someone who cannot cope with their academic demands. Furthermore, the literature focused mainly on the multidimensional structure of the academic self-concept, but the hierarchical nature of it has not been reasonably covered. Regarding, the few studies that I came across which covered the hierarchical structure of academic self-concept is one by Yeung and colleagues (2000). In their study they found evidence of a hierarchical structure of verbal self-concept by exhibiting a higher order of the English self-concept, which included facets of the self-concept such as speaking, reading, and writing (see also Lau, Yeung, Jin, & Low, 1999). Among the studies that focused on the reading self-concept as opposed to the academic self-concept, is a study by Hamachek's (1995) who indicates a strong interactive link between self- concept and academic success. This lends credence to another study by Gose, Wooden, & Muller (1980); Pershey (2010) who found a strong correlation between academic self-perception and academic success.

6.4.4 Comparison (4): The comparison of the self- concept between the monolingual and bilingual who have typical literacy levels.

Comparison (4): The comparison of the self- concept between monolingual typical literacy levels vs. bilingual typical literacy levels. The results showed that there were a significantly higher Arabic reading self-concept, Arabic handwriting self-concept, and Arabic spelling self-concept among the monolingual typical literacy levels in comparison to their bilingual peers who are also typical literacy level. When I planned this study I postulated according to my experience in working with the bilingual (Arabic – English) pupils in different countries in the Middle East, that the SpLD pupils are more prone to have low literacy self-

concept in comparison to their non-SpLD peers, due to them learning a second language despite their Arabic literacy difficulties. This however, was not the case in this study and the bilingual SpLD did not differ from the monolingual SpLD pupils in any facet of the self-concept. However, the comparison between the typical literacy pupils showed a significantly lower level for bilingual pupils in certain facets of the self-concept which are the Arabic reading self-concept, Arabic handwriting self-concept, and Arabic spelling self-concept in comparison to their monolingual pupils who are also typical literacy levels but learn Arabic only. This is an interesting finding, because the pupils revealed a lower self-concept in the Arabic literacy self-concept as opposed to the English literacy self-concept. This could mean that due to the international importance of the English language which was also highlighted by their families and their schools, the bilingual pupils are bringing more attention to the English language and they care about improving it more than the Arabic language. In the Middle East including Oman where this study took place, people are spending more time into improving the language in order to sound like a near native person which led to neglecting the Arabic language. Many schools also are using an English based curriculum to teach English, which is not easy for the students and as a result they spend more time studying it. The research among the bilingual Arabic- English and self-concept was limited only to the comparison between Arabic self-concept and achievement.

6.4.5 Comparison (5): Phonological differences between English and Arabic among the bilingual SpLD group vs the typical literacy level group.

Based on the phonological non-sense test used in this study, which was part of LASS (8-11) in Arabic and in English, the results showed that the bilingual pupils who have specific literacy difficulties had lower phonological awareness in English compared with a higher phonological awareness in the Arabic language. While I was identifying the pupils who are at risk of having SpLD by using LASS (8-11) I have noticed that the pupils are doing very well in the Arabic single word reading and they were not struggling with the Arabic sentence reading. On this basis I switched to administering the phonological test to find out what differences this sub-test could add to the pupil's results. The scores were extremely high and the word sounded "funny" to the pupils as they never heard a non-sense Arabic words before. In contrast, the bilingual pupils found the English non-sense words

rather complicated which is why they scored at a lower level. I postulated as I mentioned in the limitation of the Arabic test earlier, that the high score in the Arabic non-sense words could be due to the test itself and not due to the model of identification. A study by Albehiri, 2004 found that monolingual Arabic pupils who have “dyslexia” struggle with phonological awareness. This supported the cross linguistic studies by Snowling & Hume, (2005) which demonstrated that the cognitive process in reading and reading acquisition play a significant role in learning to read.

6.5 Strength of the study

This study embraced different methods from using the self-concept questionnaire and the motivation questionnaire to interviews as well. The distinctive methods used allowed general and personal views and perspectives to be represented along with other environmental, cultural and social factors to be exposed. Another strength in the mixed data collection is that it answered and revealed many other questions and aspects of the self-concept and the motivation for learning a foreign language, including the multi-cultural influence that Oman has as a country on the younger generation. Also, collecting data from single gender and mixed gender schools, and from different socio-economic backgrounds, private school to a state schools has revealed a different understanding of the way Omani pupils react to their school attainment. Lastly, using two different identification models, the attainment and the IQ- discrepancy models, has given strength to this study due to the fact that there were no ideal ways of identifying the pupils who are at risk of having specific literacy difficulties. Thus using two models compensated for the weaknesses that one model may have. Again, identifying the pupils in English and Arabic in one study has added value especially considering that very few researchers have identified the participants in two languages.

6.6 Strength of the survey phase

This study has certain strengths when it comes to the breadth of its design. This design enabled many new questions to be answered in regard to the bilingual (Arabic-English) pupils who have specific literacy difficulties. The survey used in this study allows the focus to move from the general understanding of the self-concept to more specific areas such as reading self-concept among a group of

pupils that are rarely targeted in studies. Regarding the motivation for learning a foreign language; few studies have been conducted concerning the SpLD group and whom are bilingual Arabic-English learner. In the methodology chapter, I managed to describe the methodological procedures in more detail for replication as it can be helpful for other researchers who are compelled by time and limited resources to use it, especially in the Middle East where educational resources are rather limited in the area of literacy and self-concept. Also the surveys were translated into Arabic and stated in the appendix 8 to help ease the process of using it by any researcher anywhere in the Arabic speaking countries.

6.7 Limitation of the survey phase

Despite the importance of using surveys in any educational research, a few limitations have shown up according to this particular study. Concerning the internal reliability (alpha), the general self-concept, which was a rather important element in this survey, showed an internal reliability (α= .578), and thus those items in the general self-concept scale were not reliable and were excluded from the analysis. The other limitation is that the number of items in the survey was rather large - 88 items in a 5 Likert scale. The administration of the questionnaire was time consuming, especially given that I had to read the questions individually for many pupils as no one could help them to read. Also the translation from the English to the Arabic version made some statements rather difficult for the 8-9 years' pupils. Moreover, Lots of items in the questionnaire were very similar but asked in different wording. The 5 point Likert scale was also not easy for the pupils especially when the same question was asked in a negative and a positive way. Regarding the intrinsic/ extrinsic motivation scale; the questions were not always representative which is why the interview was very helpful for the pupils to elaborate more on why they learn English.

6.8 Limitation of LASS (8-11) English and Arabic

A great many pupils who were referred to me by their teachers to take part in the study were considered be at risk of having specific literacy difficulties. On this basis I had to assess those pupils, but they ended up being low achievers as opposed to having SpLD. Bearing in mind that the teachers were given an information sheet to help them differentiate between certain literacy difficulties, this seems not to have been helpful and consumed a lot of my time (details about

the sheets were discussed in the methodology chapter above). The other limitation of using a UK normed test is that the English level of the schools who took part in this study were not comparable to the level of the English at the international schools in Oman. According to the English teachers and the school counsellor all of the students in this school, no matter their level of achievement, are not good in English and this was shown in the overall evaluation of the English language achievement by the schools themselves. The level of English in this school caused me to wonder whether the participants have low literacy achievement due to the school level of English or due to specific literacy difficulties, especially since a great deal of them showed no difficulties in Arabic literacy or in the Arabic phonology.

6.9 Limitation of LASS (8-11) English

The first disadvantage of using LASS (8-11) the English version is the fact that it was normed in the UK, which means it is designed to suit English language speakers in a different context. This, however, was discussed by Lucid which is the association behind the assessment and they claimed that it was used successfully in different countries around the world including Malaysia and Hong Kong, which are not English speaking countries (facts sheet 55, Lucid). This however, may not be the case in my study because a large number of the participants had an extremely low score in the English sentence reading test which is why I have eliminated this sub-test from the study and relied on the English single word test only. Despite that, the participants showed a very low scores (mean 2%) in the English single word reading which is why I questioned if LASS (8-11) is appropriate for the bilingual (Arabic- English) learners.

6.10 Limitation of LASS (8-11) Arabic version

As I mentioned earlier that LASS (8-11) the English version seems difficult for the bilingual pupils who completed this test. This moreover, has led the test to be excluded later when analysing the data. In the Arabic version of LASS (8-11) the single word reading was extremely easy for the pupils and the mean score was (99%) which means all the students could read all the single words in this test. This was of course rather surprising. Not to mention that the test was normed in Kuwait by the Kuwait dyslexia association which questions if the Kuwaiti normed

test can be generalised to the Arab speaking countries. On this basis I eliminated the Arabic single word reading sub-test and relied only on the Arabic sentence reading sub-test. Although I have considered the results from the Arabic sentence reading and the Arabic spelling, few pupils only showed specific literacy difficulties in Arabic. The mean score in the phonology among the pupils was very high 85.45%. Accordingly, the number of pupils who have SpLD in Arabic was only 8 pupils according to the weakest version of the discrepancy model, and 11 pupils only according to the weakest version of the attainment lowest 10% model (details about the weak and the strong version of the two models were discussed in the methodology chapter above). When writing the plan for this study I assumed that I might find a group of bilingual pupils who had specific literacy difficulties in Arabic only. This however was not the case, which could be due to the reasons mentioned above or possibly the fact that Arabic orthography, morphology and phonology are rather different from the English language. No studies were conducted to support my question.

6.11 Phase two: case studies

The case studies were chosen to represent the pupils who took part in this study. I have chosen pupils who have SpLD in both English and Arabic at the same time, and pupils who have SpLD in English only. In summary, 4 pupils out of 6 had SpLD in both English and Arabic at the same time, while the remaining 2 cases had SpLD in English only. Across the 6 cases, the pupils had SpLD in English in the strong version of both the attainment lowest 10% model and the discrepancy model. Yet, in Arabic, 2 of them had no SpLD at all, 2 others had SpLD according to the strong version of the discrepancy model and in the weak version according to the attainment lowest 10% model. The last 2 cases had no SpLD in Arabic in terms of the discrepancy model while they had SpLD in the strong version of the attainment model. To cross analyse these results; it is noticeable that although the pupils showed SpLD in terms of Arabic, there were variations among the cases in terms of the model of identification and the strength of the version, however, the 6 pupils had the same results in the English language in terms of the strongest version of both the attainment and the discrepancy model. In general, the number who had SpLD in English was more than the pupils who showed SpLD in both languages. After choosing the 6 pupils, they were

interviewed in areas which covered Literacy and other achievement in other subjects; general self-perception, general and cognitive abilities, friendship and social relationships, opinion toward English as a foreign language, motivation to learning foreign language, response to literacy difficulties. Lastly, along with the interview, I analysed the data of the 6 cases which were taken from the self-description questionnaire and from the Language Learning Orientations Scale (Intrinsic and Extrinsic Motivation).

6.12 Discussion of the findings

6.12.1 General self-perception

In terms of the general self-perception in the 6 case studies, there were positive general self- perceptions according to the SDQ questionnaire. Yet, when it comes to the interview there were variations in the way they expressed themselves, three out of six pupils were utterly confident and expressed clearly how they perceive themselves positively. However, this is not the case with the other three pupils who showed discrepancies not only between the high score on the SDQ that they gave and the interview, but also within the interview itself. They were rather unconfident and it was difficult to obtain a clear answer from them of how they perceived themselves (See case study 2 as an example). The findings of the first three pupils who have high self-concept was consistent with more recent ones and meta-analysis by Bear, Minke, & Manning, (2002) who found that differences between LD and non-LD pupils in global self-concept was very small. The second three pupils showed discrepant results was more consistent with Chapman's (1988) influential meta-analysis who find that pupils with LD had lower general self-concept than did non-LD students. But again part of the results cannot fit Chapman's study as they scored very high in the SDQ. It is also worth mentioning that although the studies above showed that, on one hand, there is a relationship between literacy difficulties and having lower general self-concept, and on the other hand, there were no differences in this regard. This new study has a different kind of learners, who are bilingual English-Arabic who may not be impacted by the same factors as other individuals who have different culture and who are monolingual too. Along with that there were age differences between the learners in the studies mentioned above and the learners of this particular study.

In summary the general self-concept of the pupils who have learning difficulties may not be always affected by their literacy difficulties and this can be due to different reasons. In the Middle East in general and Oman in particular, pupils from an early age are encouraged to learn a second language but are not treated as a failure if they do not speak it very well. This is because the parents or at least one of them did not master a second language. According to the teachers who I interviewed in this study, parents tend to spoil their children and rarely give them any sort of reprimand if they fail in any subject, even when it is learning how to read and to write. Along with that parents especially fathers did not show up at school at all to ask about their children's attainment and never attended any meeting in school.

In addition, the pupils during the interview seemed very confident when I asked them about their literacy attainment and they saw their difficulties as everyone's problem (see case study number 6 for an example of the positive general self-concept). Furthermore, from meeting a great deal of teachers, head teachers, assistant teachers. I noticed that they all have a very little knowledge about literacy difficulties. Thus, it is not a surprise for the majority of the parents not to have the knowledge about literacy difficulties, especially if they do not attend school seminars or meetings. Yet, the only two special education teachers who I met and were part of a special education department, complained about the fact that parents did not believe in what is called special education and believed that their children had no problem; that they were not interested in studying like most children due to the fact that they are busy with their technology and social media. On this basis we can explain why the pupils had high the self-concepts, as the parents themselves did not believe that there were literacy problems. However, if this this true why was Sam in case study 5 unsure about the way he perceived himself and then he scored himself very high in the general self-concept questionnaire. Besides Rami in case study number 2 had two different views about the way he perceived himself as a person and as a learner. From this I propose that the pupils tried to give me the impression that they were good pupils especially that the 6 pupils scored very high in the general self-concept, But some could not hide the way they perceived themselves when I questioned them directly. Eventually I assume that the general self-concept can sometimes be affected by the pupil's literacy difficulties but I also assume that there is something in the way they are treated at home or at school.

6.12. 2 Response to literacy difficulties

Among the 6 cases there were inconsistencies between the interview and the questionnaire in terms of their literacy self-concept. Some had higher scores in self-concept in the questionnaire but had a negative perception about their literacy achievement. These results were also converted in some cases and depend upon each facet of the literacy self-concept and also depending on the English and the Arabic language. From the findings I postulated that the pupils who have specific literacy difficulties can have a low self-concept in one area of literacy and not in the other, also it was clear that this negative self-concept does not transfer to other areas of literacy or to the general self-concept. But again there was no consistency in this regard as each pupil was different in their results and responded according to each facet and according to each language. While one study might presume that lower academic self-concepts of LD pupils simply reflect realistic self-perception of the academic achievement, other literature demonstrates exactly the reverse. Stone and May (2002) made a comparison between the LD and non-LD pupils on a measure of academic self-concept. While the LD pupils in this study show lower academic self-concept, they over-predicted their actual performance compared to their non-LD peers. These findings are consistent with the finding of this study and suggest that LD pupil's academic self-concepts might be less accurate when we use different methods of examination. Again as there were fewer studies that cover the self-concept of the bilingual (Arabic-English) there was no way I could compare the Arabic literacy self-concept with other studies. Thus, I believe this new study contributes to the knowledge of understanding the self-concept of the bilingual pupils who have specific literacy difficulties especially in the Middle East where a very few studies regarding literacy difficulties were conducted.

6.12. 3 Friendship and social relationships

According to the 6 cases in this study, it was apparent that there were differences among the pupils in terms of friendship and peer acceptance. However, the fact that the pupils showed consistency between the questionnaire and the interview in terms of the social self-concept was rare in other areas of the self-concept. Hence the pupils who had positive social self-concept had also a high score in the social self-concept questionnaire, and the pupils who were negative about their social life had also a lower score in the questionnaire (See for instance case

study number 5). The pupils who had a positive social self-concept were also supported by the views of the English and the Arabic teachers who both believed that the SpLD pupils who took part in this study have a normal social life and they are well accepted by their peers. Yet, this was not the case for all of them (see case study number 1) where the teachers believed that the pupil did not know how to make friends while the pupil believed that he is like everybody else. The pupils who had negative social self-concept were consistent with their teacher's view as both believed that they had difficulty in socialising with their peers. From the findings of this study I proposed that being a bilingual learner with literacy difficulties can possibly affect the pupil's social life. Yet we cannot generalise to all pupils who have SpLD as I obtained some evidence which showed that having SpLD has no impact on the social self of the individual.

During the interview the 6 pupils expressed their difficulties in literacy as something 'normal' and that anybody could have this kind of struggle and they had nothing to worry about in terms of social life. Majd, for instance, demonstrated his positivity about social life by saying: *"I do feel equal to my classmates, if not better than others, but we are all friends"*. I assume from the findings that the pupils who have SpLD are socially accepted to some extent or they do feel that they are accepted. However, the findings contradict each other which make it difficult to come to a simple conclusion. From meeting with the pupils I can tell that some are extremely confident and they always compare themselves to the rest of the class. Despite their literacy difficulties they fit in with the class with no problem at all. This idea as mentioned above in paragraph 6.4.2 is also supported by Marsh, 2009 who suggested the big-fish-little-pond effect (BFLPE), which means the pupils are not comparing themselves in terms of how well they achieve but in comparison to their classmate achievement. This could apply to these findings; as talking to their teachers indicated that the level of the class in terms of English and Arabic literacy was average. Accordingly, the pupils are treated equally and they have no problem with socialising with their class mates. Again, this was not the case with all of them. I suppose that those pupils who have lower social self-concept are having other problems which is not relevant to having SpLD.

6.12.4 Intrinsic and extrinsic motivation to foreign language learning

The pupils also showed a consistency between the questionnaire and the interview in terms of the extrinsic motivation to learn a foreign language but this consistency was not the same for the internal motivation. The pupils believed that they learn English because they need to please their parents and never for their own joy from learning something new. This finding is perhaps inevitable, because people in Oman are very keen to learn the Language because the country hosts many international employees and everybody feels comfortable in communication, while shopping for instance, if they know the English language. Besides, Omani people are known for their love of education and every student's dream is to study abroad and this is why parents are always trying to show their children the importance of the English language.

When searching in the Education Information Resources Centre (ERIC), PsycINFO, British Education Index, and many other database, the available research on peer acceptance and social self-concept of the pupils who have learning difficulties was rather restricted (Kavale & Forness, 1996). Concerning the social self-concept among the bilingual (Arabi-English) there were no studies at all both for the social self-concept and for the intrinsic extrinsic motivation. The findings of this study, as mentioned earlier, showed a positive social self-concept which is not consistent with previous research by Bignall & Butt (2000); Emerson & Hatton (2008); Emerson & Robertson (2002); Moore & Carey (2005); Pestana (2011), who showed pupils with learning disabilities are often socially isolated.

6.13 Strength of the case studies phase

Due to the fact that this study focused on the self-concept and the motivation to learn a foreign language among a group of pupils (bilingual Arabic-English) who were rarely studied in the Middle East, the interview strengthened the study because it allowed a wide range of personal and environmental factors to be studied and the relationships between the pupil's interview, the English and the Arabic teacher's interview and the questionnaires to be revealed.

This method also allowed more areas of the pupils' life to be discovered such as the response to learning difficulties, the comparison between English and Arabic in terms of its difficulties, the pupils' social relationships as well as the intention behind learning a foreign language and their opinions toward English as an international language. Furthermore, In chapter 4, I argued that there is a positive

social self-concept among all the bilingual pupils who have specific literacy difficulties (SpLD). This positivity was also exposed among the 6 cases which was also recognised in the perceptions of their teachers despite the negative self-concept that was shown on other areas of the academic self-concept.

6.14 Limitation of the case studies phase

The only limitation of using interviews was the fact that this can not be representative of all bilingual pupils in this study as the main aim of this phase was to illuminate and not generalise. Especially given that the scores in each facet of the self-concept among the pupils were completely different from one pupil to another as each pupil had unique scores. Moreover, the participants were all from the same socio-economic group if we consider that they all study at private middle class school which represent their socio-economic home backgrounds. In Oman it is very obvious that the children from affluent backgrounds attend an international school whereas the private schools are for the middle class people and the state schools are for those who cannot afford private education. Due to this we cannot generalise the data for lower or upper socio-economic levels for instance. Also, this study took place in Oman and the results may not be the same in other Middle Eastern country as each country has its unique environmental and cultural factors that interfere with the way the pupils perceive themselves.

6.15 Integration of the survey and the case study methods.

In this chapter I have critiqued the survey and the case study phases in terms of the results found. I then discussed the relationships between the new findings and the relevant literature. In the meantime, I commence an integration between the two phases in order to reveal how both methods addressed the same topic and how each methodology supports the other one in order to form a one single study. In the methodology chapter, I have argued that the reason behind using a mixed methods design was to have an overall understanding of an area or research that has not been covered properly.

The survey addressed 4 different comparisons between the monolingual and the bilingual pupils who have specific literacy difficulties and who are typical literacy levels. The quantitative results revealed a variety of different results across each

comparison. However, the main comparison of this study; which aimed to examine the hierarchy of the self-concept, was between the bilingual SpLD and the monolingual SpLD. However, the case study targeted only the bilingual pupils who have specific literacy difficulties. On this basis the integration between the two phases focuses on the bilingual SpLD group only.

According to the survey, the bilingual SpLD pupils revealed no differences in terms of hierarchy of the self-concept in comparison to the monolingual pupils who have SpLD. Yet, the comparison of the self- concept between the bilingual pupils with SpLD and bilingual typical literacy levels pupils showed that the bilingual pupils who have specific literacy difficulties had significantly lower self-concept than the bilingual pupils who are typical literacy levels. This lower self-concept was in the English reading self-concept and the English spelling self-concept and general school self-concept. In terms of the case study the bilingual SpLD pupils also revealed an inconsistency between the interview and the questionnaire and the English and Arabic teacher's perception with each pupil having different results. According to the survey the bilingual pupils with SpLD had a positive social self-concept which was also the same with the case study. The 6 cases showed a positive social self-concept and was also consistence with their scores in the self-concept questionnaire.

6.16 Strength of the mixed methods design

The mixed methods design has more potential to answer the research questions, especially where is a new area of research to be covered, than a single method design can do. According to this study, using mixed methods design brings a combination of both statistical findings on the hierarchy of the self-concept among the bilingual and the monolingual pupils who have specific literacy difficulties in the Middle Eastern region and also produces an in depth understanding of the way the SpLD bilingual pupils perceive themselves in each area of the self-concept. On this account and due to the fact that this is a new research question, using a mixed methods design was very helpful to contribute to new and unique data. The emphasis on both groups and individuals was very significant in this study, especially that the literature showed very contradictory results in terms of the self-concept among the pupils with SpLD and their peers who are typical literacy levels.

6.17 Limitation of the mixed method design

The downside of using mixed methods was the time consuming nature of it and the boredom factor that it can cause for both the researcher and for the pupils themselves. Not to mention that the data collection was gathered in Oman, a country which I did not come from nor have ever visited before this. I was restricted to finishing everything in 4 months. Yet, the amount of data needed was considerable and this was because I needed to finish all the assessment tests which were 8 for the English language and 5 for the Arabic language then analyse them before I could choose the pupils who were eligible for the survey phase and the case study phase respectively. Although the self-concept questionnaire and the foreign language motivation scale was conducted in at least 3 sessions for each pupil, the number of pupils whom I read to individually was a lot. So only a couple of days were left for me to interview the pupils with restricted time because the pupils were to be taken out of their classes quite often despite their teachers having given permission.

6.18 Strength of LASS (8-11) English and Arabic

The reason behind choosing LASS (8-11) was that this is the only test for this age group that has English and Arabic versions despite the fact that each version was designed by a different association and normed in two different countries (details about the tests were discussed in the methods chapter above). The benefit of having parallel assessments is that it can make it easier to draw a comparison between two elements, which in this case are the non-sense words between Arabic and English. I argued in the survey chapter that the bilingual pupils who have specific literacy difficulties scored significantly high in the Arabic non-sense words in comparison to a very low score in the English non-sense words. The second advantage of using LASS (8-11) is the fact it is a computer-based assessment which was enjoyable for the pupils according to my observation. This element has eased the long process of assessing the pupils, especially the bilingual pupils, who had to be assessed in two languages, which makes it around 13 sub-tests and took at least four sessions for each pupil to be completed. . Furthermore, the strength of using LASS is that the standardised norms cover the full ability range from below average to above average pupils,

which makes it easy for me as a researcher as I can exclude the pupils who are not targeted in this study.

6.19 Contribution to knowledge

This study has added original knowledge to the topic of self-concept and motivation to foreign language learning for pupils with SpLD in several ways.

1. The bilingual (Arabic –English) pupils who have specific literacy difficulties have no statistically differences in any dimension of the self-concept in comparison to their monolingual peers who also have specific literacy difficulties.

2. The bilingual and the monolingual pupils who have specific literacy difficulties have a positive social self-concept with their peers.

3. The bilingual (Arabic – English) who have typical literacy levels have a lower self-concept in the Arabic reading, spelling and handwriting in comparison to their monolingual peers.

4. The study has made an original contribution to the identification process, as two languages (Arabic and English) were used to assess the pupils who are at risk of having SpLD.

5. A contribution to the research in the Middle East since the studies that cover the self-concept and motivation to foreign language learning have not been applied to bilingual pupils who have specific literacy difficulties.

6. The use of LASS (8-11) the Arabic version which I can claim that I am the first researcher to use this test. This test was unpublished one I first used it and I was given the right to test it in my own research.

7. Another contribution of this present study to research is the use of mixed method design to examine the self-concept among the bilingual pupils who have SpLD.

6.20 Conclusion

Learning disabilities, dyslexia, specific literacy difficulties and many others are all terms referring to the difficulties people have with learning to read, write and spell. With regards to this, there is no consensus among researchers concerning these definitions, which is why some researchers have also argued over the validity of "dyslexia" being distinguished from other difficulties such as reading disability or poor reading. These arguments have arisen due to the overlapping characteristics between learning difficulties/dyslexia and other literacy difficulties. Despite the fact that there have been some changes regarding the identification of specific literacy difficulties, which was cited by Rose Report, 2009 in which "Dyslexia" is thought of as a continuum, not a distinct category, and there are no clear cut-off points. A great many questions have not been addressed and many researchers find it rather difficult to apply just one definition as none has been accepted by all researchers without criticism. In accordance with this uncertainty about the definition, another problem occurs concerning the practice which is why many identification models exist. Amongst these models are the IQ/ discrepancy achievement, the attainment low functioning and the phonological difficulties models. These models were critiqued by many researchers for the limitation of identifying the pupils who are at risk of having literacy difficulties although some researchers favor one over the other in terms of validity. On this basis, I have used two models of identification; the ones mentioned above to identify the bilingual and the monolingual pupils who took part in this study. I used the IQ/ discrepancy achievement because pupils with SpLD need to be differentiated from the pupils who manifest reading problems such as slow learning as part of a more general cognitive deficit. The use of the attainment model is more to see how the pupil's achievement compares to their peers of the same age. Although I have used two different models of identification I am still unsure of whether these two best identified the pupils especially in the Arabic language. The conclusion that I came across is that SpLD in English might reflect a lack of fluency and oral knowledge of English and not underlying processing problems.

Regarding the self-concept, the literature was also very broad and inconsistent and the definition of the self-concept was also very broad. As for the definition of

the LD, the uncertainty of the self-concept definition has also made it difficult to figure out the differences among the interchangeable terms of the self, such as self-esteem, self-perception and self-worth. On this account, many researchers have used the terms interchangeably which is why it is difficult to use their literature to compare with other studies. The self-concept was also used to represent a hierarchy of the self-concept which concluded many different areas of academic and non-academic facets of the self-concept. In the literature that I came across the studies focused mainly on the general areas of the self-concept such as the academic self-concept as oppose to each facets of the self-concept. In general, the limitations of this study were mainly regarding the literature because this present study has various variables to be covered at the same time but the literature according to each facet was rather limited.

This study has come out with unique results because the targeted pupils have not been studied previously in terms of assessing them in two languages in Arabic and in English. Also there were no studies according to my research that covered the area of self-concept according to the bilingual pupils who have specific literacy difficulties either in one language or in both. The other contribution of this study is the assessment of the intrinsic and extrinsic motivation to foreign language learning of the pupils who have SpLD. In terms of the identification of SpLD it was surprising that the pupils did not show specific literacy difficulties in Arabic in any model of identification that was used in this study. However, a low number appeared when we considered a weak version of the two models (8-11 pupils). In the English language however the number was higher than in Arabic, even in the strong version of the identification models. According to the variety of options I used in order to consider if the pupil had SpLD or not, I came to the conclusion that it is very important for each researcher and literacy assessor to consider two points: First of all, sticking to one method or model of identification is not always right and can be misleading, especially when assessing a pupil in the second language. Secondly, considering a pupil with literacy difficulties in one language does not mean he or she will necessarily have it in the second language. I have also found it to be especially common in the Middle East for the literacy assessor to use a test normed in the UK or the US with no attention to the differences that the language and the culture may cause.

The difference in results between the English and Arabic might be due to several factors. The first factor might be that there was some problem with the Arabic tests, which appeared to be too easy for the pupils. The second was that, the pupils were not familiar with activities in the analogical reasoning test nor had they been exposed to play with puzzles for instance. It needs to be noted that the pupils in the state schools usually came from rural areas and had mainly non-educated parents. The last factor was that the Arabic language is different form the English language in terms of its transparency, phonology and morphology which is why the pupils showed no literacy difficulties in Arabic. In this regard, I suggest that language and educational assessors assess the pupils who are at risk of any kind of literacy difficulties in both languages whether it is Arabic – English or any other two languages. This is especially so when the two languages differ in terms of their transparency. It is also important not to stick to one model of identification but to consider another model of identification that might show results that can be rather helpful. The last important aspect I would like to highlight is the assessment tests themselves. Using a UK designed test which was normed in the country that speaks the language and then use the test in different country where English is a second language, might not give valid results. An example of this is when I decided to exclude the English sentence reading tests as the children all scored zero. I am sure that if I assessed the same pupils informally using sentences that are suitable for their age I might get a different result. I used a UK normed test because it was impossible to get an English test that is normed in the Middle East. Regarding the Arabic test, I would recommend not to choose LASS (8-11) the Arabic version as I was not happy with how easy this test was for the children in this study, which is why I excluded the single word reading from the analysis. Another interesting result I obtained was a score of 99% from all the monolingual pupils in the Arabic non-sense word. Although they found it very funny and weird this finding also reflected the fact that either the test included very easy words or the non-sense words did not apply to the Arabic Language. Arabic can get difficult for those who have literacy difficulties when they did not know the small marks which is based above each letter or when these marks are removed. But if we give random letters to make a non-sense words we are giving the pupils a good escape to not read properly. Due to this I do not believe that it is very helpful to rely on the non-sense test in the Arabic language.

The most important findings about the comparison of the self-concept between monolingual SpLD vs. bilingual SpLD was that there were no important differences between the monolingual SpLD group and the bilingual SpLD group in any facets of the self-concept. From day one of planning for this thesis and from my experience of working with pupils who have SpLD I have always assumed that the bilingual pupils might have lower general self-concept and lower social and academic self-concept which is why I conducted this study. This thesis raises further questions about the validity if this assumption that calls for further research. For this reason, I would encourage Middle East researches to examine these questions in different countries and with samples of children with different social-economic backgrounds. It could be that we perceive and appreciate education in Lebanon within the middle socio- economic class in particular ways. In terms of the intrinsic and the extrinsic motivation to learning a foreign language, the results showed that there were no statistically differences between the bilingual pupils who have SpLD and bilingual pupils with typical literacy levels. It would also be interesting to examine language learning orientation in different settings in the Middle East.

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Appendix 1: permission letter for the ministry of education/ Oman

Graduate School of Education

Ministry of education/ Oman
To whom it may concern
21.10.2013

Brief description of the research project that will take place in Oman

TITLE OF YOUR PROJECT:

The academic self-concept of bilingual Arabic and English speaking and monolingual pupils with specific literacy difficulties

Brief description

The research project attempts to identify a number of bilingual and monolingual pupils in Oman who are at risk of having specific literacy difficulties and who are typical literacy level. Once identified, a comparison will be conducted regarding the self-concept between the bilingual and the monolingual pupils with and without such difficulties. I will also examine these pupils' intrinsic / extrinsic motivation for foreign language learning as well as their peer acceptance. Furthermore, this study also aims to investigate presence of cross-linguistic phonological problems that SPLD pupils may encounter in both English and Arabic by using parallel assessments. The participants are formed by 4 groups of Omani pupils who are Bilingual and monolingual (each group will consist of 20 pupils). The pupils' age is between 9 and 12 years.

2. **The assessments to be used during the research study involve:**

1. LASS 8-11 the Arabic version which measures: single word reading, sentence reading, spelling, reasoning, auditory memory, visual memory, phonic skills, phonological processing.

2. LASS 8-11 the English version which is parallel to the Arabic version and involves the same tests.
3. Self- Description Questionnaire by Herb Marsh.
4. Language Learning Orientations Scale (Intrinsic and Extrinsic Motivation)
5. Interviews with pupils, parents and teachers.

Sukeina Ahmad
PhD Education
University of Exeter / UK

Appendix 2: Head teacher's information sheet / Bilingual

GRADUATE SCHOOL OF EDUCATION

Dear: Mrs. / Mr.

In this letter, I will try to introduce you to my research study that will take place in your school. I will also highlight all the important information you may need to know about the study and its estimated duration, as none of the employed tests have a definite finishing time. Thus, the duration of your child's participation may vary depending on their level of language proficiency and their speed in completing the test forms. The most general estimation assumes that the tests might take a few days, if being done one hour a day also to avoid any boredom and stress the tests may cause. Three main tests are computerized tests, except the British Ability scales, which are a paper based tests.

Below are the details of my research:

The title of the study: The academic self-concept of bilingual Arabic and English speaking and monolingual pupils with specific literacy difficulties (SPLD)

The purpose of the data collection:

1. To identify a number of bilingual pupils who are at risk of having specific literacy difficulties and who are typical literacy levels.
2. To find out the self-concept, the intrinsic / extrinsic motivation to foreign language learning as well as the peer acceptance of the SPLD pupils
3. To interview and observe (2-3) pupils who have SPLD.

Measurements will be used during the research study for the pupils who are at risk of having SPLD

1- LUCID LASS 8-11 the Arabic version which measures: Phonological awareness, auditory discrimination, auditory short term memory, visual short term memory as well as visual and Verbal sequencing.

2- LUCID LASS 8-11 the English version.

Measurements for the pupils who are typical literacy level will be only the English and Arabic word reading and spelling.

After identifying all the students will be given:

1- Self- Description Questionnaire by Herb Marsh.

2- Intrinsic/ extrinsic foreign language learning motivation questionnaire.

3- The age range of the participants is between 8 – 12 years old. The numbers of pupils who will participate are:

4- 20 pupils who are bilingual and are at risk of having specific literacy difficulties.

5- 20 who are bilingual and have typical literacy levels

I hope that I have explained all relevant information regarding my study, and I would like to express my appreciation and gratitude for your time and eventual participation of your students in the present study.

Date: / /2013

Appendix 3: Head teacher's information sheet / Monolingual

GRADUATE SCHOOL OF EDUCATION

Dear: Mrs. / Mr.

In this letter, I will try to introduce you to my research study that will take place in your school. I will also highlight all the important information you may need to know about the study and its estimated duration, as none of the employed tests have a definite finishing time. Thus, the duration of your child's participation may vary depending on their level of language proficiency and their speed in completing the test forms. The most general estimation assumes that the tests might take a few days, if being done one hour a day also to avoid any boredom and stress the tests may cause. All the tests are computerized tests.

Below are the details of my research:

The title of the study: The academic self-concept of bilingual Arabic and English speaking and monolingual pupils with specific literacy difficulties (SpLD)

The purpose of the data collection:

1. To identify a number of monolingual pupils who are at risk of having specific literacy difficulties and who are typical literacy levels.
2. To find out the self-concept, and the peer acceptance of the SpLD pupils.
3. To interview and observe (2-3) pupils who have SpLD.

Measurements will be used during the research study for the pupils who are at risk of having SPLD

1. LASS (8-11) the Arabic version which measures: Phonological awareness, auditory discrimination, auditory short term memory, visual short term memory as well as visual and Verbal sequencing, Arabic word reading and spelling.
2. After identifying all the students will be given: Self- Description Questionnaire by Herb Marsh.
3. The age range of the participants is between 8 – 12 years old. The numbers of pupils who will participate are:
4. 20 pupils who are monolingual and are at risk of having specific literacy difficulties.
5. 20 who are monolingual and have typical literacy levels

I hope that I have explained all relevant information regarding my study, and I would like to express my appreciation and gratitude for your time and eventual participation of your students in the present study.

Appendix 4: Parent's information sheet / Bilingual and Monolingual

GRADUATE SCHOOL OF EDUCATION

Title: Description of the study that your child will take part of

(Pupils who are Bilingual and are at risk of having specific literacy difficulties)

Dear parents...

I am planning to do a study of students who are at risk of having learning difficulties in the Middle East as a PhD student at the University of Exeter, UK. The aim of this study is:

1. To identify a number of bilingual pupils who are at risk of having specific literacy difficulties.
2. To find out the self-concept, the intrinsic / extrinsic motivation to foreign language learning as well as the peer acceptance of the SpLD pupils.

For this I need to understand your child's reading proficiency in Arabic and English languages where relevant.

Your child will be assessed using the following forms of assessments:

3- **LASS (8-11)** the Arabic version which measures: Phonological awareness, auditory discrimination, auditory short term memory, visual short term memory as well as visual and Verbal sequencing.
4- **LASS (8-11) the English version (FOR THE BILINGUAL PUPILS ONLY)**

From these tests the children will be selected for further assessments of their self perceptions, motivation for language learning and their social relationships in class.

What are the possible benefits of taking part?

1. You will contribute to a study which will produce conclusions that will be useful to parents and teachers.
2. You will be provided with a summary of your child's performance on the assessments and what they might mean.

I hope that this letter will help to underline the importance of letting your child participate in my study.

Date: / / 2013

Appendix 5: Teacher's Guide sheet (at risk of SpLD)

GRADUATE SCHOOL OF EDUCATION

This sheet is a guideline to help identify and characterize students who are taking part in the study:

Students are considered having specific literacy difficulties according to British Dyslexia Association if they have:

1. A combination of abilities and difficulties that affect their learning process in one or more domains such as reading, spelling and writing. These difficulties are a persistent condition.
2. Specific literacy difficulties could occur in both Arabic and English languages simultaneously, or separately in either Arabic or English language.
3. The pupils who are at risk of SpLD possess typical intellectual abilities, yet display significantly greater difficulty in learning to read and write than the majority of students of the same age.
4. Show weaknesses in areas of the speed of processing information, short-term memory, organisation, sequencing, spoken language and motor skills. Yet, these weaknesses could vary from one person to another.
5. Difficulties with auditory and /or visual perception with these being particularly related to mastering and using written language, which may include alphabetic, numeric and musical notation.

CLASS: ACADEMIC YEAR:

	Student's name	**age**	**COMMENTS**
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.			

Appendix 6: Teacher's Guide sheet (typical literacy levels)

GRADUATE SCHOOL OF EDUCATION

This sheet is a guideline to help identify and characterize students who are taking part in the study

The students are considered to fall within the category of typical literacy levels when they:

1. Can read, spell and write at the typical level corresponding with the majority of students of the same age.
2. Do not show any specific literacy difficulties in any of the skills regarding reading and writing.
3. The students who are considered to have typical literacy could be above average, average or below average in their educational performance and not having general learning difficulties.
4. Do not show weaknesses in areas of the speed of processing information, short-term memory, organisation, sequencing, spoken language and motor skills.

CLASS: **ACADEMIC YEAR:**

	Student's name	age	Achievements level
1.			**Above average** ☐ **Average** ☐ **Below average**
2.			**Above average** ☐ **Average** ☐ **Below average**
3.			**Above average** ☐ **Average** ☐ **Below average**
4.			**Above average** ☐ **Average** ☐ **Below average**
5.			**Above average** ☐ **Average** ☐ **Below average**
6.			**Above average** ☐ **Average** ☐ **Below average**
7.			**Above average** ☐ **Average** ☐ **Below average**
8.			**Above average** ☐ **Average** ☐ **Below average**
9.			**Above average** ☐ **Average** ☐ **Below average**
10.			**Above average** ☐ **Average** ☐ **Below average**
11.			**Above average** ☐ **Average** ☐ **Below average**
12.			**Above average** ☐ **Average** ☐ **Below average**
13.			**Above average** ☐ **Average** ☐ **Below average**

Appendix 7: Self-concept questionnaire

Self-concept questionnaire
استبيان مفهوم الذات

INSTRUMENT All information supplied will be kept strictly confidential

سيتم حفظ جميع المعلومات المقدمة في سرية تامة:

Your Name: _____ Circle one: Boy Girl
School: _____ Grade: _____ Age: _____
Date:_____

اسمك:_____ حوق واحدة: فتاة صبي
المدرسة: _____ الصف _____ :العمر:_____
التاريخ:

This is a chance to look at yourself. **It is not a test.** There are no right answers and everyone will have different answers. Be sure that your answers show how you feel about yourself. **PLEASE DO NOT TALK ABOUT YOUR ANSWERS WITH ANYONE ELSE.** We will keep your answers private and not show them to anyone.

هذه فرصة للنظر في نفسك .هذا ليس اختبارا .لا توجد إجابات صحيحة و سيكون للجميع إجابات مختلفة .كن على يقين من أن إجاباتك تبين كيف تشعر حول نفسك .الرجاء لا تتحدث عن إجاباتك مع أي شخص آخر . لن نبين اجابتك لأحد وستكون سرية.

I will read out loud but you may read quietly to yourself as I read aloud. When you hear each sentence, please decide your answer. There are five possible answers for each question - "True", "False", and three answers in between. Choose your answer to a sentence and circle the number of the answer you choose.
سوف أقرأ بصوت عال ولكن يمكنك قراءتها بهدوء لنفسك بينما أقرأ بصوت عال .عند سماعك كل جملة قرر إجابتك .هناك خمسة إجابات محتملة لكل سؤال"صحيح" أو "خطأ"، وثلاث إجابات في ما بين .اختار إجابتك على الجملة وحوق رقم الإجابة التي اخترتها.

False خطأ	**Mostly false** في الأغلب خطأ	**Sometimes false, Some times true** خطأ في بعض الأحيان، صحيح أحيانا	**Mostly true** صحيح في الغالب	**True** صحيح
1	2	3	4	5

You may only choose one answer. Please **DO NOT** say your answer out loud or talk about it with anyone else. Before you start there are two examples below.
يمكنك اختيار إجابة واحدة فقط .الرجاء عدم قول إجابتك بصوت عال أو الحديث عن ذلك مع أي شخص آخر .قبل أن تبدأ هناك مثالين أدناه.

A student named Ali has already answered the first two examples to show you how to do it. After that you must choose your own answer by circling the number.
طالب اسمه علي، قد أجاب عن أول مثالين ليظهر لك كيفية القيام بذلك .بعد ذلك عليك اختيار الإجابة الخاصة بك وحوق رقم اجابتك.

A. I don't like reading books *1* *2* *3* *4* *(5)*

لا أحب قراءة الكتب

(Ali circled the number 5, which was the answer "TRUE". This means that he didn't like to read books. If Ali likes to read books very much, he would have answered "FALSE" or "MOSTLY FALSE")
رسم علي دائرة حول الرقم 5, الذي يدل على أن الاجابة " صحيح". هذا يعني أنه لا يحب قراءة الكتب. اذا كان علي يحب قراءة الكتب كثيرا, كان عليه أن يجيب ب "خطأ" أو "في الأغلب خطأ".

B. *In general, I am neat and tidy* *1* *2* *3* *4* *5*

عموما أنا نظيف ومرتب

Ali answered “SOMETIMES FALSE, SOMETIMES TRUE” because he is not very neat, but he is not very messy either

أجاب علي ب "في بعض الأحيان، صحيح أحيانا" لأنه ليس نظيفا جدا ولكنه ليس فوضوي أيضا.

General Self-concept
مفهوم الذات العام

	Statement الجملة	**False** خطأ	**Mostly false** في الأغلب خطأ	**Sometimes false Sometimes True** خطأ في بعض الأحيان، صحيح أحيانا	**Mostly true** صحيح في الغالب	**True** صحيح
1.	I do lots of important things أقوم بالكثير من الأشياء المهمة	**1**	**2**	**3**	**4**	**5**
2.	Overall I am no good أنا لست جيدا في العموم	**1**	**2**	**3**	**4**	**5**
3.	In general, I like being the way I am بشكل عام، أحب أن أكون كما أنا	**1**	**2**	**3**	**4**	**5**
4.	Overall I have a lot to be proud of عموما لدي الكثير لأفتخر به	**1**	**2**	**3**	**4**	**5**
5.	I can't do anything right لا أستطيع أن أقوم بأي شيء صحيح	**1**	**2**	**3**	**4**	**5**
6.	I can do things as well as most other people يمكنني أن أقوم أشياء كمعظم الناس	**1**	**2**	**3**	**4**	**5**
7.	Other people think I am a good person يعتقد أشخاص آخرين بأنني شخص جيد	**1**	**2**	**3**	**4**	**5**
8.	A lot of things about me are good الكثير من الأشياء عني جيدة	**1**	**2**	**3**	**4**	**5**
9.	I am as good as most other people أنا جيدة مثل معظم الناس	**1**	**2**	**3**	**4**	**5**
10.	When I do something, I do it well عندما أقوم بشيء، أقوم به جيدا	**1**	**2**	**3**	**4**	**5**

Academic self-concept
المفهوم الذاتي الأكاديمي
Mathematic self-concept
مفهوم الذات في الرياضيات

	statement	False	Mostly false	Sometimes false Sometimes true	Mostly true	True
1.	I hate **MATHEMATICS** أكره الرياضيات	**1**	**2**	**3**	**4**	**5**
2.	Work in **MATHEMATICS** is easy for me العمل في الرياضيات السهل بالنسبة لي	**1**	**2**	**3**	**4**	**5**
3.	I look forward to **MATHEMATICS** أتطلع إلى الرياضيات	**1**	**2**	**3**	**4**	**5**
4.	I get good marks in **MATHEMATICS** أحصل على علامات جيدة في الرياضيات	**1**	**2**	**3**	**4**	**5**
5.	I am interested in **MATHEMATICS** أنا مهتم في الرياضيات	**1**	**2**	**3**	**4**	**5**
6.	I learn things quickly in **MATHEMATICS** أتعلم أشياء بسرعة في الرياضيات	**1**	**2**	**3**	**4**	**5**
7.	I like **MATHEMATICS** أحب الرياضيات	**1**	**2**	**3**	**4**	**5**
8.	I am good at **MATHEMATICS** أنا جيد في الرياضيات	**1**	**2**	**3**	**4**	**5**
9.	I enjoy doing work in **MATHEMATICS** أنا أستمتع بالعمل في الرياضيات	**1**	**2**	**3**	**4**	**5**
10.	I am weak at **MATHEMATICS** أنا ضعيف في الرياضيات	**1**	**2**	**3**	**4**	**5**

Verbal Academic self-concept
القراءة (لغة عربية)

	statement	False	Mostly false	Sometimes false Sometimes true	Mostly true	True
1.	I get good marks in **READING** أحصل على علامات جيدة في القراءة	**1**	**2**	**3**	**4**	**5**
2.	I like **READING** أحب القراءة	**1**	**2**	**3**	**4**	**5**
3.	I am good at **READING** أنا جيد في القراءة	**1**	**2**	**3**	**4**	**5**
4.	I am interested in **READING** أنا مهتم في القراءة	**1**	**2**	**3**	**4**	**5**
5.	I am weak at **READING** أنا ضعيف في القراءة	**1**	**2**	**3**	**4**	**5**
6.	I enjoy doing work in **READING** أنا أستمتع بالعمل في القراءة	**1**	**2**	**3**	**4**	**5**
7.	Work in **READING** is easy for me العمل في القراءة سهل بالنسبة لي	**1**	**2**	**3**	**4**	**5**
8.	I look forward to **READING** أتطلع إلى ال‌قراءة	**1**	**2**	**3**	**4**	**5**
9.	I hate **READING** أكره القراءة	**1**	**2**	**3**	**4**	**5**
10.	I learn things quickly in **READING** أتعلم أشياء بسرعة في القراءة	**1**	**2**	**3**	**4**	**5**

Spelling (Arabic) الإملاء (لغة عربية)

	statement	False	Mostly false	Sometimes false Sometimes true	Mostly true	True
1.	I get good marks in **SPELLING** classes أحصل على علامات جيدة في صف الاملاء	**1**	**2**	**3**	**4**	**5**
2.	Work in **SPELLING** classes is easy for me العمل في صف الإملاء سهل بالنسبة لي	**1**	**2**	**3**	**4**	**5**
3.	I am hopeless when it comes to **SPELLING** classes أنا ميؤوس مني عندما يتعلق الأمر بصف الاملاء	**1**	**2**	**3**	**4**	**5**
4.	I learn things quickly in **SPELLING** classes أتعلم بسرعة في حصة الاملاء	**1**	**2**	**3**	**4**	**5**
5.	Compared to others my age I am good at **SPELLING** classes بالمقارنة مع الآخرين ممن هم في سني أنا جيد في الاملاء	**1**	**2**	**3**	**4**	**5**
6.	I have always done well in **SPELLING** classes لطلما كنت جيدا في حصة الاملاء	**1**	**2**	**3**	**4**	**5**

Handwriting (Arabic)
الخط (لغة عربية)

	statement	False	Mostly false	Sometimes false Sometimes true	Mostly true	True
1.	Compared to others my age I am good at **HANDWRITING** classes **بالمقارنة مع الآخرين ممن هم في سني أنا جيد في حصص الخط**	**1**	**2**	**3**	**4**	**5**
2.	I get good marks in **HANDWRITING** classes **أحصل على علامات جيدة في حصص الخط**	**1**	**2**	**3**	**4**	**5**
3.	Work in **HANDWRITING** classes is easy for me **العمل في حصص الخط سهل بالنسبة لي**	**1**	**2**	**3**	**4**	**5**
4.	I am hopeless when it comes to **HANDWRITING** classes **أنا ميؤوس مني عندما يتعلق الأمر بحصص الخط**	**1**	**2**	**3**	**4**	**5**
5.	I have always done well in **HANDWRITING** classes **لقد فعلت دائما بشكل جيد في صفوف الخط**	**1**	**2**	**3**	**4**	**5**
6.	I learn things quickly in **HANDWRITING** classes **أنا أتعلم بسرعة في صفوف الخط**	**1**	**2**	**3**	**4**	**5**

Foreign language self-concept

	statement	False	Mostly false	Sometimes false Sometimes true	Mostly true	True
1.	I get good marks in **READING** أحصل على علامات جيدة في القراءة	**1**	**2**	**3**	**4**	**5**
2.	I like **READING** أحب القراءة	**1**	**2**	**3**	**4**	**5**
3.	I am good at **READING** أنا جيد في القراءة	**1**	**2**	**3**	**4**	**5**
4.	I am interested in **READING** أنا مهتم في القراءة	**1**	**2**	**3**	**4**	**5**
5.	I am weak at **READING** أنا ضعيف في القراءة	**1**	**2**	**3**	**4**	**5**
6.	I enjoy doing work in **READING** أستمتع بالعمل في صف القراءة	**1**	**2**	**3**	**4**	**5**
7.	Work in **READING** is easy for me العمل في صف القراءة سهل بالنسبة لي	**1**	**2**	**3**	**4**	**5**
8.	I look forward to **READING** أتطلع إلى القراءة	**1**	**2**	**3**	**4**	**5**
9.	I hate **READING** أكره القراءة	**1**	**2**	**3**	**4**	**5**
10.	I learn things quickly in **READING** أتعلم أشياء بسرعة في صف القراءة	**1**	**2**	**3**	**4**	**5**

Spelling (English)

	statement	False	Mostly false	Sometimes false Sometimes true	Mostly true	True
1.	I get good marks in **SPELLING** classes أحصل على علامات جيدة في صف الاملاء	**1**	**2**	**3**	**4**	**5**
2.	Work in **SPELLING** classes is easy for me العمل في صف الإملاء سهل بالنسبة لي	**1**	**2**	**3**	**4**	**5**
3.	I am hopeless when it comes to **SPELLING** classes أنا ميؤوس مني عندما يتعلق الأمر بصف الاملاء	**1**	**2**	**3**	**4**	**5**
4.	I learn things quickly in **SPELLING** classes أتعلم بسرعة في حصة الاملاء	**1**	**2**	**3**	**4**	**5**
5.	Compared to others my age I am good at **SPELLING** classes بالمقارنة مع الآخرين ممن هم في سني أنا جيد في الاملاء	**1**	**2**	**3**	**4**	**5**
6.	I have always done well in **SPELLING** classes لطلما كنت جيدا في حصة الاملاء	**1**	**2**	**3**	**4**	**5**

Handwriting (English)

	statement	False	Mostly false	Sometimes false Sometimes true	Mostly true	True
1.	Compared to others my age I am good at **HANDWRITING** classes **بالمقارنة مع الآخرين ممن هم في سني أنا جيد في حصص الخط**	**1**	**2**	**3**	**4**	**5**
2.	I get good marks in **HANDWRITING** classes **أحصل على علامات جيدة في حصص الخط**	**1**	**2**	**3**	**4**	**5**
3.	Work in **HANDWRITING** classes is easy for me **العمل في حصص الخط سهل بالنسبة لي**	**1**	**2**	**3**	**4**	**5**
4.	I am hopeless when it comes to **HANDWRITING** classes **أنا ميؤوس مني عندما يتعلق الأمر بحصص الخط**	**1**	**2**	**3**	**4**	**5**
5.	I have always done well in **HANDWRITING** classes **لقد فعلت دائما بشكل جيد في صفوف الخط**	**1**	**2**	**3**	**4**	**5**
6.	I learn things quickly in **HANDWRITING** classes **أنا أتعلم بسرعة في صفوف الخط**	**1**	**2**	**3**	**4**	**5**

General school self-concept

	statement	False	Mostly false	Sometimes false Sometimes true	Mostly true	True
1.	I am hopeless when it comes to most **SCHOOL SUBJECTS** ميؤوس مني عندما يتعلق الأمر بـمعظم المواد المدرسية	**1**	**2**	**3**	**4**	**5**
2.	I learn things quickly in most **SCHOOL SUBJECTS** أتعلم أشياء بسرعة في معظم المواد المدرسية	**1**	**2**	**3**	**4**	**5**
3.	I have always done well in most **SCHOOL SUBJECTS** لطالما فعلت جيدا في معظم المواد المدرسية	**1**	**2**	**3**	**4**	**5**
4.	Compared to others my age I am good at most **SCHOOL SUBJECTS** بالمقارنة مع الآخرين ممن هم في سني أنا جيد في معظم المواد المدرسية	**1**	**2**	**3**	**4**	**5**
5.	Work in most **SCHOOL SUBJECTS** is easy for me العمل في معظم المواد المدرسية سهل بالنسبة لي	**1**	**2**	**3**	**4**	**5**
6.	I get good marks most **SCHOOL SUBJECTS** أحصل على علامات جيدة في معظم المواد المدرسية	**1**	**2**	**3**	**4**	**5**

Athletic self-concept
مفهوم الذات الرياضي

	statement	False	Mostly false	Sometimes false Sometimes true	Mostly true	True
1.	I can run fast استطيع ان اركض بسرعة	1	2	3	4	5
2.	I like to run and play hard أحب الركض واللعب بجد	1	2	3	4	5
3.	I hate sports and games أكره الرياضة والألعاب	1	2	3	4	5
4.	I enjoy sports and games أستمتع بالرياضة والألعاب	1	2	3	4	5
5.	I have good muscles لدي عضلات جيدة	1	2	3	4	5
6.	I am good at sports أنا جيد في الرياضة	1	2	3	4	5
7.	I can run a long way without stopping أستطيع الركض أشواطا طويلة دون توقف	1	2	3	4	5
8.	I am a good athlete أنا رياضي جيد	1	2	3	4	5
9.	I am good at throwing a ball أنا جيد في رمي الكرة	1	2	3	4	5

Social self-concept
مفهوم الذات الاجتماعي

	statement	False	Mostly false	Sometimes false Sometimes true	Mostly true	True
1.	I have lots of friends لدي الكثير من الأصدقاء	1	2	3	4	5
2.	I make friends easily أكون صداقات بسهولة	1	2	3	4	5
3.	Most kids have more friends than I do معظم الأطفال لديهم أصدقاء أكثر مما أفعل	1	2	3	4	5
4.	I get along with kids easily أتفق مع الأولاد بسهولة	1	2	3	4	5
5.	I am easy to like من السهل محبتي	1	2	3	4	5
6.	Other kids want me to be their friend أطفال آخرين يريدون مني أن أكون صديقهم	1	2	3	4	5
7.	I have more friends than most other kids لدي أصدقاء أكثر من معظم الأطفال الآخرين	1	2	3	4	5
8.	I am popular with kids of my own age لدي شعبية مع الاطفال من هم في سني	1	2	3	4	5
9.	Most other kids like me معظم الأطفال الآخرين يحبونني	1	2	3	4	5

Appendix 8: Language Learning Orientations Scale

Language Learning Orientations Scale
Intrinsic and Extrinsic Motivation

مقياس توجهات تعلم اللغة
الدوافع الداخلية والخارجية

To what extent do the following reasons apply for learning the English language? Write the number from the scale below which shows your reasons for learning a second language. Remember there are no right or wrong answers and everyone will have different answers. I will read aloud each statement but you may read quietly to yourself. There are five possible answers (1-5) so decide your answer and circle the number of the answer you choose.

إلى أي مدى تنطبق الأسباب التالية لتعلم اللغة الإنجليزية؟ اكتب رقم المقياس أدناه الذي يبين الأسباب التي دفعتك لتعلم لغة ثانية؟ تذكر أنه لا توجد إجابات صحيحة أو خاطئة، والجميع سيكون لهم إجابات مختلفة. وسوف أقرأ كل بيان بصوت عال ولكنك قد تقرأه لنفسك بهدوء. هناك خمس إجابات محتملة (1-5) لذلك قرر إجابتك وحوق رقم الإجابة التي تختارها.

False خطأ	**Mostly false** في الأغلب خطأ	**Sometimes false, Some times true** خطأ في بعض الأحيان، صحيح أحيانا	**Mostly true** صحيح في الغالب	**True** صحيح
1	2	3	4	5

Intrinsic Motivation

	The reason I learn the English Language is: السبب الذي دفعني لتعلم اللغة الانكليزية هو:	**False**	**Mostly false**	**Sometimes false Sometimes true**	**Mostly true**	**True**
1.	For the enjoyment I experience when I know the meaning of difficult words in the second language للمتعة التي أختبرها عندما أعرف معنى الكلمات الصعبة في اللغة الثانية	**1**	**2**	**3**	**4**	**5**
2.	For the satisfaction I feel when I accomplish difficult exercises in the second language للشعور بالرضا عندما أنجز تمارين صعبة في اللغة الثانية	**1**	**2**	**3**	**4**	**5**
3.	Because I enjoy acquiring knowledge about the second language community and their way of life لأنني أستمتع باكتساب المعرفة عن مجتمع اللغة الثانية وطريقة حياتهم	**1**	**2**	**3**	**4**	**5**
4.	For the satisfaction I get when I speak a second language للشعور بالرضا عندما أتكلم اللغة الثانية	**1**	**2**	**3**	**4**	**5**
5.	For the pleasure I experience when I do well in my second language learning للمتعة التي أختبرها عندما أفعل جيدا في تعلم لغتي الثانية.	**1**	**2**	**3**	**4**	**5**
6.	For the satisfied feeling I get in finding out new things in my second language للشعور المرضي الذي أحصل عليه عندما أكتشف أشياء جديدة عن لغتي الثانية	**1**	**2**	**3**	**4**	**5**

Extrinsic motivation

	The reason I learn the English Language is:	False	Mostly false	Sometimes false Sometimes true	Mostly true	True
1.	In order to get a high marks in school لأحصل على علامات عالية في المدرسة	**1**	**2**	**3**	**4**	**5**
2.	In order to get praise from my teacher لتمدحني معلمتي	**1**	**2**	**3**	**4**	**5**
3.	Because I have the impression that my parents expect me to learn English لأن لدي انطباعا بأن والدي يتوقعان مني تعلم اللغة الإنجليزية	**1**	**2**	**3**	**4**	**5**
4.	Because I would feel ashamed if I couldn't speak English because all the pupils my age are learning English لأنني سأشعر بالخجل إذا لم أتمكن من التحدث باللغة الإنجليزية لأن جميع التلاميذ من عمري يتعلمون الإنجليزية	**1**	**2**	**3**	**4**	**5**
5.	Because I would feel guilty if I couldn't interpret to my parents when they need this لأنني أشعر بالذنب إذا لم أتمكن من تفسير شيء ما لوالدي عندما يحتاجون	**1**	**2**	**3**	**4**	**5**
6.	Because I would feel down if someone tease me when I do mistakes while reading or speaking لأنني سأشعر بالاكتئاب إذا كان شخص ما ندف لي عندما أخطئ أثناء القراءة والتحدث	**1**	**2**	**3**	**4**	**5**

Appendix 9: Pupil's semi- structure interview plan

Introduction

First of all, I am delighted that you have agreed to conduct this interview and I want to thank you for taking the time to come and meet me.

My name is Sukeina Ahmad and I am doing a PhD in education at the University of Exeter in the UK. In this interview I would like you to help me find out more about your academic and social life.

This interview will be hold within two settings for no more than 30 minutes. If you feel tired at any stage or you do not wish to continue the interview you have the right to withdraw your participation at any time. Also, if there is any question that you do not feel comfortable to answer, please do not hesitate to tell me.

The interview will be recorded in order for me to able to analyse your responses later. I will do my utmost to safeguard these recordings; as a matter of fact I am the only person having the access to them. Thus, neither your teacher nor a head teacher and not even your parents have the right to listen to these recordings. Once analysed, the recordings will be destroyed.

During the interview I would like to discuss many points, and therefore, I have divided it into several categories.

Now is the time to ask any question regarding what I have said or anything concerning this project before we start.

Academic life

Studying at school

1- Tell me more about your life at school in general, how many subject do you have each day? What subject do you prefer, how many breaks do you have every day. (introductory Q)

2- Do you have any art and sport classes? How often? How do you find them? Are they good and interesting?

Okay! Let's now talk about your school performance and how things are going with you?

3- What is the most challenging subject for you? What kind of difficulties you have? How long can you concentrate in general and do you feel you would benefit from having more breaks?
4- Do you receive any extra form of learning such as group work outside the class, reading or spelling practice? If yes, do you think they are helpful? If no, do you think you need extra help?
5- If your teacher asks you to read out loud, do you respond to her and make an attempt to read? Or do you prefer not to read to avoid any kind of embarrassment.
6- When you make a mistake whilst reading or answering a question, do your classmates laugh at you? If yes, how do you feel? How do you and your teacher act in such situation?
7- How difficult is it for you to deal with your learning difficulties? Tell me more please.

In case there are no learning facilities in the school

8- Do you think that your performance would improve if you receive the necessary support? How much and in what terms would it improve?

Let's know talk about your relationship with your teacher

9- Do you think that your teachers are aware of your learning difficulties but have failed to support you, since they are busy with the rest of the class? Can you give me any example of a situation where you felt ignored?
10- If you felt isolated in the classroom, have you ever thought of telling about this to your parents or anyone else in the school in order for them to help you solve this problem?

In case of presence of learning facilities/ assistant teacher:

11- Is the presence of an assistant teacher beneficial for you? Does she provide you with the support you need, especially in reading and in writing? Do you thing that she understands your problem and is always trying to help you?
12- Do you think that having learning facilities helps you academically, but also causes other problems? For example, teasing by friends or name calling?

Studying English as a second language

13- How difficult do you find learning English, especially if you have plenty of tasks to do in Arabic?

14- Do you think it would be better if your school decided to stop teaching English and concentrate more on Arabic for students who struggle with learning difficulties?

15- Would you prefer if you were in a monolingual school, where you could learn only Arabic?

16- Who teaches you English at home? Do you have a private tutor?

17- Do you usually compare your level of English with your class mates or your siblings?

Can we now talk about your studying habits at home?

Studying habits at home

18- When do you start studying after you come home from school? What do you start with?

19- Do you have your own studying area? How comfortable is it? Is it free of noise and distractions?

20- Do you prepare everything (e.g. book, notebook, pencils etc?) before you start studying? Can you tell me more about what do you do etc.…

21- How long can you concentrate whilst doing an assignment at home, how often do you feel distracted during the assignment? What do you usually think about? What are the things that distract your attention the most whilst studying?

22- When you use the computer to read, write or to do any assignment, do you think it is easier than using a pen and a paper? Why?

23- Do you usually manage to do all the assignments that you have got? When do you finish studying?

24- Do you try to read a story/magazine in your spare time in order to improve your reading?

General questions

25- Do you know how is your learning problem called? Has anybody discussed it with you?

26- Do you think that identifying your learning problem has been good for you? If yes/No why?

27- Do you prefer to let your peers know that you have SPLD? Or would you rather keep it for yourself without others knowing about it. Why?

28- Do you know your strengths and weaknesses? Can you tell me more please?

29- When do you feel anxious, worried or afraid of something like exams and reading in the class and why?

30- What kind of support are you looking for in general?

Let's move on to talk about you social life.

Social life

Peer relationship

1- Who are the pupils that you hang around with during break time? Can you tell me more about your relationship with them?
2- Do you have any pupil whom you would call your best friend?
3- Do you feel like you want to be close to other pupils but you cannot. Or would you rather keep distance from them? Tell me why please?
4- Do you prefer having friends who have the same difficulties as yours? If yes, why?
5- How often do you get bullied by friends or called names? How do you respond in such situation?
6- Do you feel like you want to get revenge if somebody hurts you? Or do you feel you do not have the courage to stand up to them.
7- Do you think that your friends value you when you work as a team, or they ignore any suggestion you make?
8- Are you part of any team such in singing, dancing, basketball etc…?
9- What kind of activities do you enjoy doing most?
10- Do you think that you cannot do anything right because you have SPLD?
11- How important is for you what your friends think of you?

12- How do you keep in touch with your friends? For example: by using social media [FB, whatsup] visiting their houses etc.
13- How important are social media to you? Do you have a lot of friends?
14- When your friends comment on your picture or they like it, how do you feel about it?

General questions

1- If you have a problem, to whom will you refer to? A teacher, friend, sibling or your parents?
2- What is your ideal place where you can enjoy you time and why?
3- How easy is to discuss your problems with your parents, and do you think they would understand you or blame you if you did a mistake?
4- Do you think that your parents are aware or your academic difficulties? Do they support you or blame you for them?
5- Has anyone talked to you in school or at home about your academic problems, and discussed it with you to make sure you understand that this is not your fault, and also that you will need to make extra effort in order to read and write properly?
6- How often do you use your devices (iPad, iPhone,TV etc…) throughout the day and how long can you concentrate whilst playing a certain game.
7- Do you think that you have got a hidden talent and you wish that others can notice that?
8- How important are learning achievements to you?
9- How do you perceive yourself in general?
10- How do you spend your time at home and what kind of activities do you usually do?

Appendix 10: Teacher's semi- structure's interview

1- First of all, how do you describe the student's ability to learn in general? How do they perform in reading and writing?
2- Beside their literacy difficulties, does he/she show any weaknesses in their cognitive ability such as poor memory, week concentration and others?
3- Can you tell me more about the student's participation in the class room?
4- How do you find their motivation to learn in general? When does he/she demonstrate an interest or enthusiasm to learn or participate in class activity?
5- How do you describe their motivation to learn a foreign language? (English teacher only)
6- How does he/she behave in and outside the classroom?
7- Does he/she have any teaching support/learning facilities at their disposal? Are these inside or outside the class? Can you expand on this point please?
8- How difficult is for him/her to read out loud?
9- What are the most common difficulties he/she struggles with regarding reading, comprehension, writing, spelling etc., and can you rate these please?
10- If yes, is there any progress the student has demonstrated in any of these categories in particular?
11- Is there any kind of group work in the class? Does he/she co-operate?
12- Does he/she understand what they read? How do you describe their reading comprehension?
13- Can he/she understand the instructions given orally? Is he/she slow in responding to any for your instructions?
14- How does he/she perform in written exams comparing with oral exams?
15- What procedures do you use to evaluate the student's progress apart from regular tests?

Social life

16- Can you describe their relationship with peers inside and outside the classroom if possible?
17- Does he/she participate in any kind of activities at the school level?
18- Does he/she perceive themselves negatively/positively in general?
19- How can you describe their personality? Does he/she show lack of curiosity or is he/she still keen to learn despite their literacy difficulties?

Appendix 11: Certificate of ethical research approval

MSc, PhD, EdD & DEdPsych theses.

UNIVERSITY OF EXETER

Graduate School of Education

Certificate of ethical research approval

MSc, PhD, EdD & DEdPsych theses

To activate this certificate, you need to first sign it yourself, and then have it signed by your supervisor and finally by the Chair of the School's Ethics Committee.

For further information on ethical educational research access the guidelines on the BERA web site: http://www.bera.ac.uk/publications and view the School's Policy online.

READ THIS FORM CAREFULLY AND THEN COMPLETE IT ON YOUR COMPUTER (the form will expand to contain the text you enter)**. DO NOT COMPLETE BY HAND**

Your name: Sukeina Ahmad

Your student no: 600040282

Return address for this certificate: 30 Dean Clarke loft-Southernhay Gardens Exeter – EX1 1SG

Degree/Programme of Study: PhD education
Project Supervisor(s): Prof. Brahm Norwich – Andrew Richard

Your email address: saaa204@exeter.ac.uk

Tel: 07445217939

I hereby certify that I will abide by the details given overleaf and that I undertake in my thesis to respect the dignity and privacy of those participating in this research.

I confirm that if my research should change radically, I will complete a further form.

Signed:…….. ..date:….....……

Appendix 12: Certificate of ethical research approval

TITLE OF YOUR PROJECT:

The academic self-concept of bilingual Arabic and English speaking and monolingual pupils with specific literacy difficulties

1. Brief description of your research project:

The research project attempts to identify a number of bilingual and monolingual pupils in Omani who are at risk of having specific literacy difficulties and who are typical literacy level. Once identified, a comparison will be conducted regarding the self-concept between the bilingual and the monolingual pupils with and without such difficulties. I will also examine these pupils' intrinsic / extrinsic motivation for foreign language learning as well as their peer acceptance. Furthermore, this study also aims to investigate presence of cross-linguistic phonological problems that SPLD pupils may encounter in both English and Arabic by using parallel assessments.

2. Give details of the participants in this research (giving ages of any children and/or young people involved):

The participants are formed by 4 groups of Omani pupils who are (a) bilingual SPLD (b) bilingual with typical literacy levels (c) monolingual SPLD (d) monolingual with typical literacy levels. The pupils' age is between 9 and 12 years, and all pupils study at primary schools. Each group will consist of 20 pupils; therefore, the overall number of participants will be 80 pupils. In addition, I will also interview a number of parents and teachers as part of my case study comprising 4 to 5 cases with their parents and their language teachers.

3. Give details (with special reference to any children or those with special needs) regarding the ethical issues of:

Since the participants' age ranges between 9 to 12 years, prior to the commencement of the study, their parents will sign a consent form to indicate their approval that their children might participate in the study. Simultaneously, the parents will inform their children regarding all relevant information surrounding their participation in the research.

informed consent: Where children in schools are involved this includes both head teachers and parents). Copy (ies) of your consent form(s) you will be using must accompany this document. A blank consent form can be downloaded from the GSE student access on-line documents: Each consent form MUST be personalised with your contact details.

The head teachers will be given a consent form to be signed to agree that this study will be conducted in their schools. The aim of the study will be explained in the consent form together with the research procedures that are to be used. Although, in Kuwait, the approval for accessing the schools for the purposes of research is within the responsibility of the Ministry of Education, to maintain ethical standards, I will still seek the head teachers' approval.

The parents will be given a consent form to sign on behalf of their children upon children's expression of willingness to participate in the study. The consent form will be translated into Arabic, since the parents and head teachers are native Arabic speakers. An English copy of the consent form will be attached with this form.

4. Anonymity and confidentiality

In the research project, it is crucial to maintain anonymity of all participating pupils at all stages of the research, with the exception of recording these names strictly for the research purposes only. After analysing the data, the parents will be provided with a copy of their child's results; then all the records will be destroyed. Inasmuch as having the exclusive right to provide their child's results to a third party, only the parents can provide the school with a copy of the test results in the case that the school would request such copy. Therefore, every reasonable effort will be made to ensure that no output will provide information which might allow any participant or school to be identified from names, data, contextual information or a combination of these.

5. Give details of the methods to be used for data collection and analysis and how you would ensure they do not cause any harm, detriment or unreasonable stress:

In this study, a considerable portion of assessments, scales and questionnaire will be administrated for each pupil. These assessments are in English and Arabic for the bilingual group and solely in Arabic for the monolingual group. In the first two stages, the pupils will be assessed using standardised and reliable assessments. In the later stages, the pupils will be given the scales and the questionnaire to fill in.

Due to the number of tests, the pupils might experience some pressure as some of the tests might be time consuming, for this reason the tests will be given within a couple of days to avoid boredom and stress. The researcher will make every effort to minimal the impact on the children's learning or in-class performance.

The measurements used in this research project include:

5- **LASS 8-11 the Arabic version which measures:** sentence reading • spelling • reasoning • auditory memory ('Mobile Phone') • visual memory ('The Haunted Cave') • phonic skills ('Funny Words') • phonological processing ('Word Chopping').
6- LASS 8-11 the English version.
7- Self- Description Questionnaire by Herb Marsh.
8- Intrinsic/ extrinsic foreign language learning motivation questionnaire.

9- Sociometric nominations to measure the social life of the pupils.
10- Interviews with children, parents and teachers for the number (4-5) of case studies.

6. Give details of any other ethical issues which may arise from this project - e.g. secure storage of videos/recorded interviews/photos/completed questionnaires.

In the computerised tests such as Lucid Cops, each child will be assigned a different pass code that will be kept in a **protected file on the University of Exeter U-drive**. The other tests such as the British Ability scales, which are a paper based tests, the consent forms and any other hard copies such as, the questionnaires, scales, and interviews will stored in a locked file cabinet; they will destroyed after completing the process of data analysis.

The audio or any other electronic data will be stored by means of protected software, and will be downloaded from the recording devices at the earliest possible opportunity, and then deleted immediately from these devices.

7. Special arrangements made for participants with special needs etc.

Before commencing the assessment of the children who are at risk of having SPLD, the assessor needs to explain to the children the purpose of taking all these tests and the benefits the children may receive in the end. To do so, the assessor needs to show the children an example of the tests and explain briefly how these tests work. It is possible to do this for all students in one general session; however, this process needs the head teacher's consent.

Regarding the observation, the researcher is required to inform the children about the purpose of the observation and to explain that (she) is not observing their behaviour to judge them. The researcher will inform the children that the tests results (computerised tests, paper tests) will be given to their parents and no one else, including teachers, head teachers or even their peers, will have access to these results, as only their parents have the right to their results. In the case of the children's audio interviews, no one is allowed to take any copy, not even children's parents. These interviews will be stored for a brief period after their analysis is completed and then disposed of by shredding the paperwork.

This form should now be printed out, signed by you on the first page and sent to your supervisor to sign. Your supervisor will forward this document to the School's **Research Support Office** for the Chair of the School's Ethics Committee to countersign. A unique approval reference will be added and this certificate will be returned to you to be included at the back of your dissertation/thesis.

N.B. You should not start the fieldwork part of the project until you have the signature of your supervisor

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This project has been approved for the period: **until:**

By (above mentioned supervisor's signature): …….....……**date:**…….....

N.B. To Supervisor: Please ensure that ethical issues are addressed annually in your report and if any changes in the research occur a further form is completed.

GSE unique approval reference: …….

Signed

Chair of the School's Ethics Committee
