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Challenges for Establishing a Learning Support Center in Rural Areas for Students with
Specific Learning Disorders

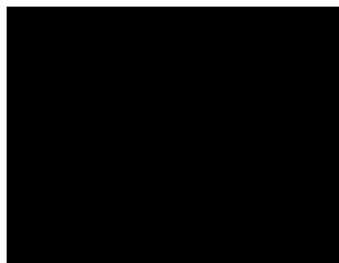
By

Rania N. Daoud

A thesis
Submitted in partial fulfillment of the requirements
for the degree of Master of Arts in Education

School of Arts and Sciences

May 2016



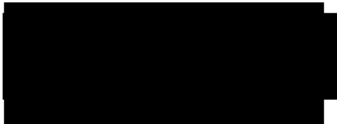


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ACKNOWLEDGEMENT

This research would not have been possible without the help and assistance of many persons.

First my gratitude goes to LAU which is considered my second home. The LAU Education department embraced me with care, love, and encouragement in the most professional way.

My sincere gratitude is for my advisor Dr. Mona Nabhani. Her support, patience, guidance, trust and faith in me have helped throughout this study. I will always be indebted to her infinite care and help. To me, she is the LAU lady leader. I would also like to thank my committee members, Dr. Rima Bahous and Dr. Mahmoud Natout. Dr. Bahous was the magic stick in this study as my topic, which is my actual dream, was ignited in her office and I will always owe her this. Dr. Natout's priceless feedback was encouraging and helpful.

I would like to express my gratitude and appreciation to my professor Dr. Ahmad Oueini. I am very thankful for the knowledge you provided me with. I will always owe you this knowledge that no one can take from me.

Thanks go to the School where I conducted the study. Thank you for the staff members, students, and parents for being cooperative and helpful throughout the study.

Thanks go to all my friends for their moral support and priceless love. A big thank you goes to my friend Sarah Jurdi for her miraculous support, presence, care, and love.

Last but not least, to my parents and brothers, I hope through this thesis I was able to make you proud.

Challenges for Establishing a Learning Support Center in Rural Areas for Students with Specific Learning Disorders

Rania N. Daoud

ABSTRACT

Students with specific learning disorders (SLDs) who live in rural areas in Lebanon may be deprived of support programs that are based on expert assessment; consequently, their education may be compromised. This study provides a design for an out-of-school Center whose mission is to improve learning outcomes and decrease failure rate in the K-12 mainstream classrooms for students with SLDs. It provides support for such students with daily homework in reading, mathematics, and/or writing and with remediation and reinforcement during summer holidays. The Center's programs and strategies are derived from the relevant international and local literature and results of research conducted in a Lebanese rural area at a school that claims to have inclusive settings and cater for students with SLDs. Purposive sampling was used to identify the research site, students, their parents and teachers. Questionnaires were administered to students and teachers, and semi-structured interviews were conducted with the Principal, parents, Head of the special education department, and an expert in special education. The researcher's journal of a relevant experience and the reviewed literature served as bases for devising items for the various instruments which were piloted to ensure credibility. Qualitative data analysis and simple frequency counts yielded results that informed the design, programs, and handbook of the Center. The handbook includes definitions and description of SLDs, symptoms, assessment / diagnosis, and interventions as well as qualifications

Keywords: Students with SLDs, After-School Programs, Summer Programs, Out-of-school Programs, Dyslexia, Dyscalculia, Research-Based Strategies, Intervention Programs

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LIST OF ABBREVIATIONS

APA: American Psychiatric Association

DSM-5: fifth edition of the Diagnostic and Statistical Manual of Mental Disorders

Head of S. E. D.: Head of Special Education Department

IDA : International Dyslexia Association

IDEA: Individuals with Disabilities Education Act

IDRAAC : Institute for Development, Research, Advocacy and Applied Care

IEP: Individualized Educational Program

LD: Learning Disability

MEHE: Ministry of Education and Higher Education

NCERD: National Center for Educational Research and Development

OST: out-of-school time

SKILD: Smart Kids with Individual Learning Differences

SLD: Specific Learning Disorder

UNESCO: United Nations Educational, Scientific and Cultural Organization

Chapter One

Introduction

1.1 Overview and Research Context

The alphabetic phonetic script which is the precursor for the current alphabet was developed in Byblos, one of Lebanon's oldest cities around 1200 B.C. (Medlej & Medlej 2007). Shortly thereafter, this early form of the alphabet traveled to Greece where it was reformed, and then traveled to the world changing the writing system forever. However, only recently societies endeavored to teach all citizens to read and write, and throughout the process, discovered that some individuals have difficulties in learning adequate literacy skills (Berninger & Wolf, 2009).

This study provides a design for a bilingual (English and Arabic) learning support center in a rural area in north Lebanon for students with Specific Learning Disorders (SLDs) based on the available international and local literature and on the needs of the local communities. Participants who contributed ideas to the design of such a center are an expert in the field of special education, middle and high school students diagnosed with SLDs, parents of students diagnosed with SLDs, teachers, the Head of the special education department, and the Principal at a school that caters to students with special needs. To successfully achieve an effective learning support center that seeks to help students overcome their deficits, address their academic gaps and maintain sustainability, the design of this center is based on collecting data that sheds light on the features listed in Table 1 as potential moderators of the program effectiveness:

Table 1: Features of the Learning Support center

Program Focus	characteristics and services
Academic Resources	remedial and intervention programs and research-based strategies for teaching reading, mathematics, writing and for homework completion
Curriculum	Individualized Educational Program (IEP)
Progress Measurement	continual evaluation
Timeframe and Program Duration	length of program/ number of days per week/ hours per day
Student Grouping	one-on-one / small groups of 3-4/ groups of 10-15/ grouping criteria of students in groups
Grade Level	kindergarten/ elementary/ middle/ high school
Tutors' Skills	personal characteristics and qualifications
Leader's Skills	personal characteristics and qualifications
Family Engagement	parents/ legal guardian's engagement
School Engagement	teachers' and principal's authentic engagement

The study commences with a brief overview of the history of SLDs and the related American laws implemented in comparison with the current practices and legislations enacted in Lebanon.

Learning disability (LD) is a term used to describe a set of conditions that intervene with an individual's learning and his or her functioning in the daily life activities. Individuals with LD have average or above average intelligence, normal vision and normal hearing acuity. Therefore, disabilities related to listening, speaking, reading, reasoning, writing, spelling, and mathematical calculations are not expected, as the individual with LD exhibit typical intelligence, vision, hearing acuity, and might not be identified either at school or at home. Sometimes individuals with LD are thought to

be stupid, underachievers, lethargic, or weird and, consequently, receive destructive criticism that usually yields feelings of frustration, helplessness, anger, depression, worry, and insignificance. Thus, the provision of early identification and appropriate interventions is necessary to secure better and productive lives for individuals with LD (Harwell, 2001).

Historically, the field of learning disabilities was mainly recognized in 1937 when Samuel Orton, an American neuropathologist, used the term ‘strephosymbolia’ to describe children with reading difficulties who had reversals (Harwell, 2001). The term ‘learning disabled’ was suggested by Samuel Kirk in 1963 when a group of frustrated parents of children with reading difficulties met in Chicago to discuss and demand the required educational services for their children (Harwell,2001; Berninger & Wolf, 2009,). Then, in 1975, a significant event marked the history of learning disabilities in the U.S. which was passing the Education of All Handicapped Children Act of 1975 (Public Law 94-142) by the American Congress. This law has guaranteed a ‘free and appropriate’ public education in the ‘least restrictive environment’ possible for all students with learning disabilities (Harwell, 2001; Berninger & Wolf, 2009). In this law, professionals could not agree on a definition for learning disability based on inclusionary criterion. They concluded that a learning disability is not the result of intellectual disabilities, sensory acuity or motor impairments, a lack of opportunities to learn, or cultural differences (Berninger & Wolf, 2009). The definition of learning disability was refined in the 1990’s when the Public Law 94-142 was expanded and retitled Individuals with Disabilities Education Act (IDEA) (Harwell, 2001). According to IDEA:

‘Specific learning disability’ means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. This term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

At present, IDEA, which has been updated several times (the latest in 2004), is the federal law in the U.S. that ensures that special education services are provided for children with disabilities from the day they are born until they graduate from high school. In other words, IDEA aims at guaranteeing that all American children have a fair and equal opportunity to benefit from public education (House, 2002).

Regarding Lebanon, despite the fact that the alphabet has originated from a Lebanese city and Lebanon has high literacy rates, the highest percentage of working females, and the top-notch universities in the Arab world (Ayyash-Abdo, Bahous & Nabhani, 2009), meeting the needs and providing the required services to students with learning disabilities was not made obligatory until the revision of the Lebanese National Curriculum in 1995 (National Center for Educational Research and Development [NCERD], 1995). Moreover, Public Law 220/ 2000 that guarantees the right of persons with disabilities was approved and passed in May 2000. According to Kabbara (2013), Public Law 220/2000, which consists of ten parts and 102 articles, is one of the most significant accomplishments achieved by the Lebanese government to improve the

living conditions of people with disabilities in Lebanon. In regards to education, the seventh part of this law titled ‘The Right to Education and Sports’, which extends from article 59 to article 67, constitutes a legislative structure for the rights of persons with disabilities to receive equal education. As translated by Kabbara (2013), Public Law 220 defines in article 2 a disabled individual as a:

person whose capacity to perform one or more vital functions, independently secure his personal existential needs, participate in social activities on an equal basis with others, and live a personal and social life that is normal by existing social standards, is reduced or non-existent because of a partial or complete, permanent or temporary, bodily, sensory or intellectual functional loss or incapacity, that is the outcome of a congenital or acquired illness or from a pathological condition that has been prolonged beyond normal medical expectations (p. 8).

Therefore, one can infer that the Lebanese definition of ‘disability’ is the manifestation of a disability in a person’s life and the possible causes without listing the conditions or disorders included. Particularly, specific learning disabilities and related services were not mentioned in the Lebanese law unlike IDEA (2004), for example, which clearly states in Section 602 (3) the specific children included under the umbrella of disability.

In 2012, the NCERD developed the National Educational Plan for Persons with Disabilities which included objectives that promoted inclusion within the education sector. The NCERD is a semi-autonomous entity that is not totally under the mandate of the Ministry of Education and Higher Education (MEHE). It is a public institution that

enjoys administration and financial autonomy, yet reports to the MEHE as a custodial authority.

Following this plan, in 2013, the Lebanese MEHE and NCERD in collaboration with the Center for Smart Kids with Individual Learning Differences (SKILD), and the British Council announced April 22 as the National Day for Students with Learning Difficulties in a launching ceremony held at the UNESCO palace and attended by representatives of more than 50 educational institutions. A Memorandum of Understanding was signed by the MEHE, NCERD, SKILD and the British Council where all parties agreed to join forces in order to support inclusion in Lebanon. A teacher's manual entitled 'Common Learning Difficulties and Psychological Disorders in Schools- Symptoms and Solutions' was developed by NCERD and Institute for Development, Research, Advocacy and Applied Care (IDRAAC) and distributed to all participants in the ceremony. According to NCERD and IDRAAC (2012), this manual was designed to help teachers identify and support children with learning or psychological disorders providing teachers with tools and guidelines and encouraging them to offer the needed services especially for students enrolled in public schools. The manual also intended to assist teachers in recognizing the academic delays, retentions, and failure some children face due to their disadvantaged economic situations in anticipation to provide equal education to all children. In the introduction of this manual, the NCERD and IDRAAC (2012) differentiated between two terms: 'learning disorders' and 'learning difficulties'. They stated that students with learning disorders exhibit average or above average IQ along with discrepancy between their academic performance and their actual ability, and the learning disorders are due to mild or severe neural impairment and not to intellectual, visual, hearing, or motor handicaps, emotional

disturbance, or environmental disadvantage. As for students with learning difficulties, the NCERD and IDRAAC (2012) claimed that students with learning difficulties possess average or above average intellectual abilities along with difficulties in one or more of the basic academic skills such as reading, writing and/or mathematics. They claimed that learning difficulties are due to family problems, economic disadvantages like poverty or incompatible teaching methods or curriculum. Then, they concluded that the symptoms of learning difficulties and learning disorders are almost the same except that learning disorders are more severe and permanent. According to NCERD and IDRAAC (2012), students with learning difficulties overcome their difficulties when remediation is provided, whereas students with learning disorders show improvement upon remediation, but do not totally overcome the disorders. They stated that the term ‘learning disorders’ is used throughout the manual although the teachers are expected to assume that they are dealing with students with learning difficulties until official diagnosis proves the opposite.

Based on the manual’s explanation and definition of terms, one can conclude that the authors have differentiated between two terms and stated two distinct definitions without citing or referring to any international standards, references or studies. Accordingly, I have decided not to use the terms and definitions adopted in this manual although it was developed and approved by NCERD. Instead, the term *specific learning disorder* is adopted as used by the fifth edition of the *American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* to describe the neurodevelopment disorder characterized by “persistent and impairing difficulties with learning foundational academic skills in reading, writing, and/ or math” (American Psychiatric Association [APA] , 2013, p. 32). DSM-5 published in 2013 is

considered the most recent “standard reference for clinical practice in the mental health field” and it “has been used by clinicians and researchers from different orientations (biological, psychodynamic, cognitive, behavioral, interpersonal, family/systems)” (APA, 2013. p. xi).

According to the APA (2013), SLD is diagnosed when there are specific deficits in an individual’s ability to perceive or process information efficiently and accurately” (APA, 2013, p. 68). According to the APA, SLD is identified when the subsequent four criteria are met based on a clinical synthesis of the individual’s developmental history, medical history, family history, educational history, cumulative reports from school, and formal psychoeducational assessment. First, difficulties in learning academic skills must have persisted for at least six months even after interventions that target those difficulties were provided. The academic domains and subskills that are impaired must be specified within each of the following domains: reading (word reading accuracy, reading rate or fluency, reading comprehension), written expression (spelling accuracy, grammar and punctuation accuracy, clarity or organization of written expression), and/or mathematics (number sense, memorization of arithmetic facts, calculation fluency or accuracy, accurate math reasoning). If more than one domain is impaired, each should be identified solely. Second, the affected academic skills must be below the expected level for the individual’s age, and they should interfere with academic or occupational performance or with daily life activities. Third, the learning difficulties must be present and evident since the early school years although some individuals’ learning difficulties may not manifested fully until the learning demands surpass the individuals’ limited capabilities. Fourth, the learning difficulties are not due to intellectual disabilities,

uncorrected problems with visual or auditory acuity, or lack of language proficiency, inadequate educational instruction, or psychosocial adversity.

The severity of the SLD ranges from mild to moderate to severe.

1.2 Statement of Problem, Study Rationale and Purpose

Statement of Problem

Rural areas in Lebanon generally lack the appropriate educational services. Living in a northern rural area, my family and I have suffered from the scarceness of resources in that area. Ten years ago, my younger brother, was diagnosed with dyslexia. The diagnosis was late, at the age of ten, though the symptoms were clear and evident since he first entered the school. At first, he faced hard time learning the rhymes and later on, his teachers recognized that his reading skills are not improving despite his above-average intelligence and decent schooling. This late diagnosis was not due to my parents' failure to recognize that their son is struggling with reading. They were aware of his impairment, but they were also aware that he is smart and they knew that it is not laziness or obstinacy. Yet neither my parents, nor his school knew what was wrong and what could be done about it. Watching him suffer and face a lot of desperate moments to succeed at school, my parents did not give up their incessant inquiry until they were led to the right educational evaluator who diagnosed him with dyslexia. This dreadful experience my family and specifically my brother lived suddenly and miraculously vanished after the diagnosis was revealed. At that time, schools and specialists in our rural area, in the north of Lebanon, were not qualified enough to conduct a prognosis for my brother's impairment. This delay lengthened my brother's feelings of disappointment, anxiety, failure, and despair. The diagnosis, intervention and

recommendations provided by the evaluator, whose learning center was located in the capital city of Lebanon, Beirut, guided us and the teachers on how to help my brother throughout his schooling.

Study Rationale

When I enrolled in the Master of Arts in Education Program, my dream was to improve the chances of diagnosing and supporting children with dyslexia and other SLDs in the northern rural areas so that fewer kids have to live what my brother has lived. As an educator, my dream can be realized by spreading awareness and teaching children diagnosed with dyslexia or other SLDs through establishing a learning support center that provides an out-of-school-time academic program for students with SLDs. According to research, such a program is expected to improve the educational outcomes for these students and decrease their failure rate in the mainstream classes (Fisher & Frey, 2014; Hock, Pulvers, Deshler, & Schumaker, 2001). Based on literature and my expertise as a special educator, the Center's aim should be addressing the academic gaps of students with SLDs in all grade levels by using remedial and intervention programs and research-based strategies in teaching reading (English and Arabic), writing, and mathematics. I expect that the Center will operate after school, on weekends and during the summer, and consequently students will count on receiving assistance in completing their homework during the regular school year and in sustaining their academic knowledge during the summer. Moreover, the characteristics were assumed to include the following: program focus, timeframe and program duration, student grouping, grade level, curriculum development, progress measurement, tutors' personal characteristics and qualifications, leadership style of the center's leader, family engagement, school engagement, and available resources (see Table 1).

Assuming that this learning support center should be primarily serving a specific community in a particular rural area, its characteristics should be based on data collected from the available local and international literature as well as the community's view and suggestions on the needs, challenges, and current facilities in the area.

Purpose

In this study, I intended to explore the challenges of establishing a learning support center for students with SLDs in rural areas that lack educational development and need services offered by such centers. "There have always been disparities in development between the urban areas of Lebanon, on the coastal fringe, and the rural hinterland" (Makhoul & Harrison, 2002, p. 613). However, due to time constraints, one specific rural area located in the northern part of Lebanon was selected as the geographical setting for my study whose findings helped in designing a learning center that caters for students with SLDs from K-12. The study site is a bilingual (English and Arabic) school that caters for students with special needs located in the designated rural area.

1.3 Research Questions

This study was designed to propose a model of a learning support center and to address the following research questions:

- a) What problems do students with SLDs face and what kind of help is offered and expected for them in rural areas?
- b) What challenges face an out-of-school time (OST) academic program that caters to students with SLDs in rural areas?

c) What are the available useful remedial and intervention programs and research-based strategies recommended for students with SLDs?

Conclusion

This thesis is divided into five chapters. Chapter one introduced the relevant concepts and policies on learning disorders and the challenges of establishing a learning support center for students with SLDs presenting an overview of the history of special education in Lebanon. The following chapters will include literature review, the methodology, the results and discussion, and a concluding chapter.

Chapter Two

Literature Review

The literature review is divided in three general parts addressing the three research questions. The first and second parts which incorporate local and international reviews and studies about the students with SLD, special education field and out-of-school time (OST) academic programs, serve to answer the first and second research questions. The third part entails local and international reviews and studies about remedial and interventions programs and research-based strategies that intend to serve students with SLDs.

First Research Question

What problems do students with specific learning disorders face and what kind of help is offered and expected for them in rural areas?

Problems Students with SLDs face:

To identify the problems that students with SLDs face, it was essential to highlight on the definition of SLD adopted in this study and to recognize the different terms used worldwide that refer to learning problems. Moreover, the prevalence of SLDs was presented.

According to Tannock (2013), in most countries, the terms learning disabilities or specific learning disabilities are used in the educational sector to refer to a range of learning problems. However, there is not any international consensus regarding the definition or diagnostic criteria for learning disabilities (Hale, Alfonso, Berninger, Bracken, Christo, Clark, & Yalof, 2010). Also, in some countries and areas such as United Kingdom and Italy, the terms dyslexia, dyscalculia, and dysgraphia are

distinguished as subcategories of specific learning disability; however, in the United States, IDEA explicitly defines dyslexia but not dyscalculia or dysgraphia (Tannock, 2013).

In this study, as mentioned above, the term ‘Specific Learning Disorder’ and its definition, adopted by the fifth edition of the DSM published in 2013 are used. Based on the definition provided by the DSM-5, the persistent problems that students with SLDs face include difficulties in reading, writing and/or math manifested during the first school years. According to APA (2013), SLD is biological in origin and affects the ability of the individual’s brain to perceive or process information in an efficient and accurate way. Further research states that children diagnosed with SLD are typically poor achievers particularly in reading, written expression or mathematics, although their overall cognitive abilities are within the normal range (Giofrè, Stoppa, Ferioli, Pezzuti, & Cornoldi, 2016). However, in the same article Giofrè et al. (2016) point out that students with SLD do not perform well on working memory and processing speed subtests in comparison with typical children when administering the Wechsler Intelligence Scale for Children (WISC) battery.

A research by Johnson, Humphrey, Mellard, Woods, and Swanson (2010) that adopted the term specific learning disabilities supports these findings by stating that students with specific learning disabilities tend to have large deficits across all cognitive areas when compared to typically achieving students in addition to being underachievers in reading and math. The cognitive areas comprise working memory, processing speed, executive function, and receptive and expressive language (Johnson et al., 2010).

Other reviews that adopted the term ‘learning disability (LD)’ also described other problems students face. For example, difficulties that students with LD face described by Smith, Polloway, Patton, and Dowdy (2008) include language deficits, social-emotional problems, attention deficits and hyperactivity, memory deficits, cognition deficits, metacognition deficits and motor skill and coordination problems. Students with LD exhibit deficits in short-term memory, working memory, and long-term memory which affect their everyday life and academic demands (McNamara & Wong, 2003). Smith and Adams (2006) reported that approximately 51 percent of students with LD exhibit attention problems and around 3.7 percent of students at school have ADHD along with LD. Also, metcognition deficits include inability to concentrate on listening, purposefully remember significant information, connect information to prior knowledge, and solve problems using their own knowledge. Tabassam and Grainger (2002) reported that students with LD have lower self-concept in academics and social relations. Smith et al. (2008) claimed that students with LD experience social and emotional challenges despite the fact that some of them may have certain strong social skills. One of the social skills deficits they reported was commencing or joining a conversation or play activities. Hence, they are unable to maintain positive relationships (Nabuzoka, 2000). The two terms, Dyslexia and Dyscalculia, adopted by the DSM-5 and other studies are described in the following paragraphs.

Dyslexia

The term *dyslexia*, which is Greek in origin consisting of the prefix *dys* meaning “difficult” or “impaired” and the base word *lexia* which is derived from the word *lexicon* meaning “pertaining to words”, was first adopted by Berlin in 1887 to describe severe reading and spelling difficulties. (Berninger & Wolf, 2009; Uhry & Clark, 2005)

Lerner (1989) reported that dyslexia affects 80% of the individuals diagnosed with LD and it is the most prevalent learning difficulty in individuals. The International Dyslexia Association (IDA) (2012) reported that about 85% of the students diagnosed with LD have a primary disability in reading and language processing.

Theories about the definition and causes of dyslexia have changed over time (Uhry & Clark, 2005). However, according to APA (2013), “Dyslexia is an alternative term used to refer to a pattern of learning difficulties characterized by problems with accurate or fluent word recognition, poor decoding, and poor spelling abilities” (p. 67). According to the IDA (2012), Dyslexia is a life-long language-based learning disability that results in difficulties with specific language skills mainly reading. In addition, students with dyslexia usually have difficulties with other language skills that include spelling, writing, and articulating words.

The definition adopted by the International Dyslexia Association (IDA) in collaboration with the National Institute of Child Health and Human Development (NICHD) in 2003 state that:

Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/ or fluent word recognition and by poor spelling and decoding abilities. 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 classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge (Lyon, Shwaywitz & Shwaywitz, 2003, p.1)

As the definition implies, research emphasizes that dyslexia is a neurobiological learning disability as the neural systems in the brain responsible for processing the sounds of language are affected. These language systems located in the left hemisphere are disrupted which leads to low phonological processing skills. As a result, individuals with dyslexia have difficulty accessing and manipulating the phonemes (individual sounds) of spoken words. This deficit hinders the efficient acquisition of letter-sound correspondences and decoding skills that foster the ability to decode and recognize words accurately and fluently (Birsh, 2005).

The term phonological processing refers to ‘oral language processing abilities’ related to the sounds in words and, consequently, they are associated with the reading ability of an individual. According to Torgesen (2000), deficits in phonological processing abilities are the most intensively researched among other deficits in cognitive abilities, and interventions that target these deficits have proved to be effective for a large number of poor readers. Phonological processing abilities include the following four subcategories: phonological awareness, rapid serial naming, verbal-short term memory, and articulation speed (Uhry, 2005).

Phonological awareness has received the most attention, and it is clearly related to dyslexia (Uhry & Clark, 2005). Phonological awareness ideally occurs before the formal introduction of letters (Richards, 1999), and it is the metacognitive ability that allows an individual to focus on the word’s form and realize that spoken language is composed of a series of sounds in a certain sequence (Uhry & Clark, 2005). “It includes awareness of the sounds of words (rather than meaning) in sentences, awareness of syllables in words, and awareness of phonemes-or individual sounds-in short words or syllables” (Uhry, 2005, p.84) . Phonemic awareness, a term used to refer to awareness of

phonemes in short words and syllables, is the most significant component of all the phonological processing components and, it is considered an essential ability for the initiation and acquisition of reading (Uhry, 2005). Stanovich (1986) stated that phonemic awareness is the “conscious access to the phonemic level of the speech stream and some ability to cognitively manipulate representations at this level” (p. 362). “Research focused on reading disability and funded by the NICHD indicated that nonword reading disability is associated with a deficit in phonemic awareness” (Birsh, 2005, p.88). Lyon (1999) reported that around 17%-20% children at school have weakness in phonemic awareness (as cited in Birsh, 2005). As a result, children with dyslexia face difficulties recognizing both real and nonwords (pseudowords), and thus rely on context clues and guessing to decode words instead of using the alphabetic principles.

Dyslexia is a lifelong disorder that does not fade away and cannot be cured; however, appropriate interventions and specialized program can improve reading skills of individuals with dyslexia (Birsh, 2005). According to IDA (2012), with specialized help, students with dyslexia can learn to read and write well. Early identification and treatment is the key to help students succeed in life. Most students with dyslexia need help from a tutor or therapist who is especially trained in using a multisensory, structured language approach. It is essential to utilize a systematic and explicit method that involves several senses (hearing, seeing, touching) simultaneously when teaching students with dyslexia. They also need students need a structured practice and immediate, corrective feedback in order to develop automatic word recognition skills.

Dyscalculia

According to the American Psychiatric Association (2013), “Dyscalculia is an alternative term used to refer to a pattern of difficulties characterized by problems processing numerical information, learning arithmetic facts, and performing accurate or fluent calculations” (p.67).

The term dyscalculia, which consists of the Greek prefix dys meaning “difficult” or “impaired” and the latin base word calculia, is used to describe people who have difficulties with numbers (Cohen Kadosh & Walsh 2007).

Children with dyscalculia can have difficulty with learning to count and comprehending the one-to- one association between numbers and objects. They might have problems when asked to estimate numbers and quantities, tell the time, perform mental math and memorize or apply math concepts (Soares & Patel, 2015). According to Cohen Kadosh and Walsh (2007), dyscalculia has received little attention in comparison to dyslexia. Soares and Patel (2015) reported that between 17% and 70% of children diagnosed with dyscalculia are also diagnosed with dyslexia. They found that the interventions that involve intensive individualized instruction that are tailored to the child's specific needs, and modifications applied to instructional practice are suggested for children diagnosed with dyscalculia (Soares & Patel, 2015).

Prevalence

Specific learning disorder is one of the most frequently diagnosed neurodevelopmental disorder in childhood (Moll, Kunze, Neuhoff, Bruder, & Schulte-Körne, 2014). According to the APA (2013), 5%-15% of school-aged children are diagnosed with specific learning disorder across the academic domain of reading,

writing and math. Studies report prevalence rates of 4–9% for impairments in reading and 3–7% for impairments in mathematics (Moll et al., 2014).

In a recent study, the prevalence rates of DSM-5 specific learning disorder, in samples of students from the second to sixth grades living in median cities from four different regions in Brazil, were found to be 7.6 % for global impairment, 5.4 % for writing, 6.0 % for arithmetic, and 7.5 % for reading impairment (Fortes, Paula, Oliveira, Bordin, de Jesus Mari, & Rohde, 2016). According to research, specific learning disorder is identified in more males than females and the ratios range from around 2:1 to 3:1 (APA, 2013; Harwell, 2001).

Kind of Help Offered in Rural Areas in Lebanon

Regarding the help offered for students with SLDs in rural areas, the literature is scarce. According to Oweini and El Zein (2014), the information about the special education field in Lebanon lacks documentation. Upon reviewing the history of special education practices in Lebanon, one can deduce that policy makers have attempted to adopt the international principles of special education; however, Lebanon is still not as competitive as other Arab countries (Oweini & El Zein, 2014).

Going back in history, in 1994, Lebanon has participated in the Salamanca World Conference on Special Needs Education where all delegates agreed to promote inclusion. In addition, the latest revision of the national curriculum mandated meeting the needs and providing assistance to students with special needs (NCERD, 1995). Also, Public Law 220/ 2000 guarantees the right to equal educational and learning opportunities for all people with disabilities in Article 59 and in Article 60, it is affirmed that a disability should not limit access to any educational institution or setting in Lebanon. In other words, this law mandates inclusion.

However, as Harlan and Robert (1998) stated when discussing the Americans with Disabilities Act, “There is a great difference between passing a law and the social process that leads to actualization of the intended reform” (p. 398). In Lebanon, many advocates of this law have pushed for its implementation. Yet, settings providing appropriate instructions for student with special needs are offered mainly by private schools (Oweini & El Zein, 2014). Most of these private schools are located in Beirut or its suburbs. As other ‘Third World’ countries, Lebanon’s urban areas have developed socially and economically at the expense of rural areas (Wehbi, 2007). Some private schools have established a special division, usually referred to as Learning Support Department, which caters for students with special needs in self-contained classes, while other private schools have chosen to offer the specialized academic help in resource rooms (Oweini & El Zein, 2014). Therefore, one can conclude that there is no evidence of conclusive inclusion practices in Lebanon’s educational sector regardless of all efforts done.

Nevertheless, this year the education minister Elias Bou Saab announced plans to build 60 schools in Lebanon over the next two years that will cater for students with learning disabilities at the ceremony marking the “national day for students with learning disabilities” organized by the SKILD Center, the British Council, and CERD under the Education ministry umbrella.

Kind of Help Expected for Students with SLDS

According to research, inclusive settings are the most appropriate settings for students with SLDs. The field of education presents a rich body of literature that supports the basic belief of inclusive education. According to Swift Center (2013), existing research has demonstrated that when all students are enrolled in the general

education classes where they are offered the opportunities to develop decent social relationships and offered needed support and services, outcomes for everyone are positive. Further research emphasizes that an inclusive learning environment promotes improvement and development, aiding students of all abilities to advance their academic, social and emotional aspects. Such environments have the capability to offer the support necessary to help students of all abilities to remain engaged in school and succeed in school until they graduate.

Therefore, in principle, services for students with SLD should be provided in mainstream classes at school and not out-of-school. In the case of Lebanon, the right services are not provided at school. School curricula are not adapted to the additional needs of students with disabilities (Wehbi, 2007). Therefore, a program that supports students out of school can help students with SLDs join mainstream classes. Research has been conducted on how to help students with SLDs learn alongside their peers in an inclusive setting. Designing a program that supports students' literacy development and academic enrichment can help students with SLDs face and deal with school difficulties and, thus, reducing the gap between the curriculum's expectations and their actual knowledge and performance. Such a program can operate after the school hours and in the summer vacation and is typically referred to as out-of-school time (OST) program.

Second Research Question

What challenges face an OST academic program that caters to students with SLDs in rural areas?

To investigate the literature about the challenges that an OST academic program face, the reviews about the OST programs were divided into two parts according to the timeframes of the programs delivery. The most common timeframes of out-of-school

(OST) programs are after-school and during the summer (Lauer, Akiba, Wilkerson, Apthorp, Snow, & Martin-Glenn, 2006). However, this research was limited as these programs were designed to serve all students and not only students with SLDs. None of these OST programs intended to serve students with special needs solely. Yet, studies pointed out that after-school programs are advised for at-risk students. At-risk students are students living in situations that can lead to academic, personal, and behavioral issues that affect their school performance (Smith et al., 2008). Existing research shows that after-school programs enhance the students' academic performance (Gardner, Cartledge, Seidl, Woolsey, Schley, & Utley, 2001), and after-school tutoring programs have the ability to convert academic failure to academic success (Hock et al., 2001). After-school programs range from homework assistance to organized recreational games, and to academically oriented skills training and prevention activities. After-school programs were created based on the idea that students' engagement in an organized activity after school would benefit them in academic and social aspects (Cid, 2014). However, considering that all after-school academic programs will develop proficient and independent learners may be extremely idealistic (Hock et al., 2001). Researchers should take into consideration several moderators that affect the program's effectiveness including program focus, timeframe and program duration, students' grouping, grade level, curriculum development, progress measurement, tutors' personal characteristics and qualifications, leadership style of the center's leader, family engagement, school engagement, and available resources (see Table1).

Third Research Question

What are the available useful remedial and intervention programs and research-based strategies recommended for students with SLDs?

According to research, structured, direct, and systematic teaching methods using multisensory strategies must be adopted when teaching students with SLD (Birsh, 2005). Also, research-based programs should be adopted for interventions. The following section presents the available programs that can be used in the case of Lebanon.

Recipe for Reading: a research-based, comprehensive, multisensory, phonics-based program designed for at-risk and struggling readers based on Orthon-Gillingham principles and incorporates visual, auditory, and kinesthetic techniques. It is utilized to teach and reinforce phonics. The program is designed to be delivered in one-on-one basis outside the classroom. However, it can be utilized for groups of as many as five students per group (Uhry & Clark, 2005).

My First Letters: a program designed to teach decoding and spelling of the Arabic language to student with dyslexia. It applies the principles of Orton -Gillingham while taking into consideration the unique features of the Arabic language. The program is designed to be delivered in one-on-one basis outside the classroom (Hazoury, K. H.,Oweini, A. A., & Bahous, R., 2009).

Lindamood Phoneme Sequencing Therapy Program (LiPS): a research-based program designed to serve students with dyslexia to improve phonological awareness, thus, resulting in improved reading and decoding abilities. This is an intensive program that is designed for a classroom with small number of homogeneous students (Uhry & Clark, 2005).

Lindamood Visualizing and Verbalizing for Language Comprehension and Thinking (V/V): a research-based program that stimulates concept imagery. Individuals

become able to image gestalts. This improves language comprehension and reasoning for critical thinking expressive language skills (Murdaugh, Deshpande, & Kana, 2015).

MindPlay Virtual Reading Coach (MVRC): an effective online reading program that improves reading skills quickly and efficiently. It enables students with diverse skills and instructional needs to read accurately and fluently Mindplay Research (n.d.).

On Cloud Nine Math Program: a research based program that stimulates the ability to image and verbalize the concepts underlying math processes. Concept and numerical imagery are integrated with language and applied to math computation and problem solving Bell, N. , Tuley, K. (n.d.).

Conclusion

In conclusion, this chapter presented the available international and local literature review. The next chapter presents the research methodology.

Chapter Three

Research Methodology

The following chapter describes the methodology employed in this study. It presents the research approach, sampling and participants, instruments and data analysis methods.

3.1 Research Questions

This study addresses the following research questions:

- a) What problems do students with SLDs face and what kind of help is offered and expected for them in rural areas?
- b) What challenges face an out-of-school time (OST) academic program that caters to students with SLDs in rural areas?
- c) What are the available useful remedial and intervention programs and research-based strategies recommended for students with SLDs?

It is an anticipated outcome that the data elicited from this study will be used in designing a bilingual (English and Arabic) learning support center in a rural area that caters for students with SLDs.

3.2 Research Approach

An exploratory study using qualitative research approach was employed to delve into an unfamiliar territory when examining novel or poorly understood phenomena (Colmon, 2015). At the time of this study, little information was available about learning support centers in rural areas that cater for students with SLDs.

Some general features of a qualitative research are described by Bogdan and Biklen (2007). In qualitative research the researcher who is considered the key instruments collects data from the natural setting, and as a primary researcher, I visited the predetermined setting and conducted the designated interviews and administered the questionnaires to a specific sample in the particular setting. In qualitative research, data is collected as words or images and, in the case of this study, semi-structured interviews provided data in the form of words. Moreover, data is analyzed inductively in qualitative research and, in my study, I do not test previously formulated hypotheses, but rather explore the challenges faced by students with SLDs in a rural area. Finally, in qualitative research, researchers are interested in what the participants think and in this study, the set of questions in the interview and the questionnaires include opinion questions which explored the participants' views, beliefs, and attitudes.

In conclusion, although quantitative research is the dominant research approach in special education (Paul, Fowler, & Cranston-Gingras, 2006), some researchers are interested in the quality of a certain phenomenon under certain circumstances that may or may not apply to other situations. In the case of this study, I, as the primary researcher, was interested in gaining a deep understanding of the participants' concerns regarding learning support available for students with SLDs in their area.

3.3 Sampling and Participants

The following paragraphs present the sampling procedure and the actual participants. This geographical setting was chosen since it is where my family and I have lived and suffered from the scarce and meager educational resources, so it is a convenience site where I have access.

Since the aim of the study is to explore the challenges for students with SLDs living in a rural area, the targeted population includes all the students living in the designated area, their parents and educators as well as all the experts in the field. The targeted students are all the children diagnosed with SLDs whose ages range between 5 and 18 years old living under the patronage of their parents or legal guardian and attending mainstream schools. According to Fraenkel, Wallen, and Hyun (2012), the targeted population is the ideal population to which the researcher would want to generalize the findings. However, in the case of this study, the entire targeted population was not accessible due to time limitations. Therefore, the participants who constituted the actual sample were chosen from the accessible population.

In this study, the accessible population can be obtained by approaching the only two bilingual (English and Arabic) private schools located in this rural area that claim to have departments that cater for students with special needs. The accessible population also includes the experts in the field who have established learning support centers in rural areas. Potential participants obtained from the schools include students with SLDs, their parents and educators. Hence, I contacted the principals of both schools, but only one of them welcomed me and accepted to participate in the study by allowing me to administer the instruments within the school's premises. The only experts in this rural area offering out-of-school support for students with SLDs are speech language pathologists and occupational therapists who offer one-on-one speech and occupational therapy sessions. All the learning centers located in the designated rural area offer academic and non-academic after-school programs and summer school for mainstream students without mentioning any specialized services for the students with SLDs. Therefore, I decided to approach experts who offer diagnostic and interventions services

located in the capital city Beirut or its surroundings for information on diagnosis and interventions for students with SLD.

The school from which the participants were selected was purposively chosen because it caters for students with special needs and it is located in this geographical rural area which implies that most of the students enrolled at this school either come from this particular area or from nearby areas. Professionals who cater for students with SLDs are expected to provide valuable information regarding the students' needs, the community's expectations, the challenges that might underlie the establishment of such a center, and the available programs and appropriate strategies. Moreover, in the absence of diagnostic services in this rural area such professionals are visited by people living in rural areas for diagnostic purposes. Purposive sampling was also used in choosing the actual participants in the school.

Out of the 70 students enrolled in the learning support department at the selected school, 13 students are officially diagnosed with SLDs. Six of them are in the elementary grades, 6 of them in middle school (2 students in grade 6, 2 students in grade 7, 1 student grade 8 and 1 student in grade 9) and 1 student in the high school (grade 10). Students in the elementary grades were not part of the sample. Taking into consideration that the participating students have reading and/or writing impairment(s), I elicited information from them through administering questionnaire using simple language and an appropriate font, such as a sans serif font, for students with dyslexia. Interviews were intentionally avoided as I believed that students might not feel comfortable sharing their difficulties and opinions with a stranger. I administered the questionnaires to students diagnosed with SLDs in middle and high school (grade levels 6 to 12). I assumed that students in elementary school whose age range between 6 and 10 years old might have

reading and writing impairments, and expressing their opinions will require personal interviews which might be time-demanding and stressful. Therefore, the 7 students in middle and high school were considered the actual sample and their parents were contacted. Parental consent forms (see Parental Consent Form 1, Appendix A) were sent to parents; all agreed to permit their children to participate in the study, except for one parent whose child was in the high school. Thus, the actual sample of students consisted of 6 students: 2 students in grade 6, 2 students in grade 7, 1 student in grade 8 and 1 student in grade 9. Out of the 6 participants, 5 of them were males and one female enrolled in grade 6. All students joined the mainstream classes and had a shadow teacher who accompanied them in all classes and provided all the required support when needed.

The participating teachers were supposed to be all the teachers of students diagnosed with SLDs. Nevertheless, at this school students with special needs including students diagnosed with SLDs could be enrolled in one of the three following programs: 1) the full inclusion program where a student is enrolled in a mainstream class with a shadow teacher who provides all the required adaptations and accommodations 2) the integration program where one-on-one sessions are provided to the student in a resource room when needed during the English, Arabic, and/or math sessions or 3) the parallel class program where a student is enrolled in a self-contained class of 6 students maximum where tailored programs are offered by the special educators to meet each student's need (these classes are available as of grade 4). It is evident that teachers in mainstream classes and in the learning support department have equal opportunities to teach students with SLDs, and, consequently, it was essential to include all the teachers in the sample in order to elicit their points of views. The total number of teachers at the

school was 83; however, the principal and the Head of the special education department suggested that due to the workload and time constraints, it would be more efficient to administer the questionnaire to the available and consenting teachers. Questionnaires were administered to 13 teachers, eleven teachers responded (84.6 % response rate). Table 2 presents the demographics of the teachers who participated.

Parents were contacted based on recommendations by the Head of the special education department who knew the parents and proposed who would be most probably available and interested to participate in the study. Out of the 13 parents of students diagnosed with specific learning disorder, 5 parents were contacted and those parents agreed to participate by signing the Parental Consent form (see Parental Consent Form 2, Appendix B) and sending it back to school. The sample of parents included: parents of a student in grade 2, parent of a student in grade 3, parent of a student in grade 5, parent of a student in grade 6, and parent of a student in grade 7.

Both the Principal and the Head of the special education department were interviewed. The Head of the special education department will be referred to from now on as the Head. As for the expert in the field, I realized that there are only a few experts who established centers that provide intervention and diagnostic services in Beirut and its surroundings. I purposively chose to include only one such expert who holds a Master of Arts degree in special education and who has established a center in a coastal town near Beirut.

Table 2: Participating Teachers' Demographics

Teacher	Subject	Grade level (s) he/she teaches	Section
Teacher 1	English	1	Mainstream
Teacher 2	English	2	Mainstream
Teacher 3	English	4 and 5	Mainstream
Teacher 4	English	4,5,8,and 9	Mainstream + Self-contained Classes in the Learning Support Department
Teacher 5	English	7 and 9	Mainstream
Teacher 6	Arabic and French	3	Mainstream
Teacher 7	Math	4 and 5	Mainstream
Teacher 8	Math	7	Mainstream
Teacher 9	Science	3,4,5	Mainstream
Teacher 10	Science	6,7,8,9	Mainstream + Self-contained Classes in the Learning Support Department
Teacher 11	All subjects	6	Shadow teacher

At the designated school, the actual sample from which data was collected included the following subjects: 1) 6 students diagnosed with SLDs in middle and high school 2) 5 parents of students diagnosed with SLDs at this school 3) 11 teachers at this school 4) the Head of the special education department at this school 5) the Principal at this school and 6) an Expert in the field who has established a diagnostic and intervention center in a coastal town near Beirut.

3.4 Ethical Considerations

This study involves data collection from human subjects. Thus, ethical measures were taken into consideration in alignment with the Institutional Review Board (IRB) policies. The testing of instruments and the actual research study were not conducted until the IRB approved the proposed study, the instruments designed, and the proposed consent forms.

A Company Request (see Appendix C) was presented to the principal of the school who accepted to participate in the study and another Company Request (see Appendix D) was presented to the administrative secretary of the center established by an Expert who was interviewed. In addition, all participants' consent was obtained before administering the instruments. Parents and teachers were required to sign an informed consent form signaling their approval prior to participating, whereas oral consent was obtained from the Head of the special education department, the Principal, and the Expert. After securing their parents' or legal guardian's consent, students were informed about the study in a Participant's Assent form (see Appendix E) that required their signature.

All participants were orally informed about the purpose of the research study, what is required of them, the duration of their participation and how the research is held confidentially before seeking their consent and administering the instruments. It was clarified that the questionnaires and the interview questions will not request participants to reveal any personal information including their names or the school's name and only I, as the primary researcher, will have access to data. Participants were also informed of

their rights and benefits they might accrue from participating in this research study; it was pointed out that participating in this study involved no major risks.

In conclusion, these procedures ensured that the participants are approached in a proper ethical manner securing their rights and preventing any unintended harm.

3.5 Instrumentation

The following section discusses the instrumentation process which includes the design of the instruments and the procedures followed and conditions applied upon administering the instruments (Fraenkel et al., 2012). As in the case of some qualitative research, the instruments were assumed to provide detailed narrative description and simple frequent counts; in this study the instruments utilized are questionnaires and interviews.

Questionnaires are instruments that request participants to answer a set of questions by writing. Questionnaires can be administered and completed by a large number of participants at the same time. Interviews allow the researcher to gain desired perspectives by talking with individuals whose experience, expertise or post allows them to provide unique insights, hypotheses, explanations and other perspectives about the research issue (Stevens , Loudon , Cole, &Wrenn, 2006). According to Fraenkel et al. (2012), the reason behind interviewing, a technique used by qualitative researchers, is to discover the way people think or feel about a certain issue. Therefore, interviews were designed and administered to the participants in this study. However, Fraenkel et al. (2012) point out that the presence of the interviewer may inhibit respondents from expressing their views, opinions, and feelings. Consequently, as the primary researcher, I anticipated that some members (students and teachers) in the sample might not feel

comfortable during an interview; hence, I decided to develop and administer questionnaires to these participants.

Six instruments (see Appendix F, G, H, J, K, and L) were formulated to serve the purpose of the study and address the 3 research questions. The subject-completed instruments included two different questionnaires completed by 6 students diagnosed with SLDs in Grades 6 to 12 and 11 school teachers. The 4 different interviews were administered to 5 parents of students diagnosed with SLDs enrolled at this school, the school Principal, the Head, and an Expert in the field.

All instruments were originally written in the English language as the school from which data was collected was a bilingual (English and Arabic) one. The Expert's interview was also designed in English as the expert received her MA degree from an international university. Parents' interview questions were translated to Arabic as upon piloting, parents seemed to understand the questions posed in English, but they preferred to answer and express their thoughts in Arabic, the mother-tongue. Therefore, I decided to administer the questions in Arabic after I translated from English using a back-translation technique (Chen & Boore, 2010). I compared the two versions in English and realized that the meanings remained the same. Therefore, the Arabic version was adopted as it proved to be equivalent to the English version. This process ensured the validity of the instrument, that is, it is clear and can get the data it is supposed to get.

Three different types of questions were utilized in all the instruments as defined by Patton (2002): background questions, experience questions, and opinion questions. Background questions are the routine questions that elicit background information about the respondent's background characteristics. Experience questions elicit information on what the respondent is doing at present or has done previously. Their aim is to obtain

descriptions that could have been examined by the researchers but were not for certain reasons, whereas opinion questions focus on exploring the respondent's thoughts about a certain issue. Moreover, knowledge questions were used in the interviews with the Head, the Principal and the Expert to obtain factual information that participants possess (Patton, 2002).

Concerning the questions format, both selection and supply items were utilized in the students' and teachers' questionnaires, whereas only supply items were utilized in the interviews. The selection items, utilized in the questionnaires, included closed-ended questions that offered possible responses for the respondent and included the term 'other' allowing the respondent to provide other responses not anticipated by the researcher. Also, the selection items included questions that asked the respondent to rate certain criteria. On the other hand, some items in the questionnaires and all the items in the interviews were supply items in the form of open-ended questions that required the respondents to supply a word or a phrase that expressed their perspectives or needs.

All the interviews were semi-structured interviews with questions formal interviews that consist of a set of questions formulated to obtain particular responses from respondents (Fraenkel et al., 2012).

3.5.1 Piloting the Instruments

All instruments were piloted prior to administering. A pilot study refers to the small-scale testing of proposed procedures that aim at identifying any problem that can be fixed before carrying out the study (Fraenkel et al., 2012). Pretesting the questionnaires and interviews was conducted with a small number of respondents similar to the actual sample to shed light on any ambiguities, poorly phrased questions, questions that are misunderstood, vague choices, and instructions (Fraenkel et al., 2012).

According to Cohen, Morrison, and Manion (2007), pilot studies, in the humanities, are generally utilized to examine various methods of data collection, observation schemes, and questions in a specific cultural or social context, and to eliminate misunderstandings in the questionnaires. The knowledge gained by the researcher through piloting is considered priceless for the research process carried afterwards (Gudmundsdottir & Brock-Utne, 2010). Piloting helped clarify some items and some changes were made due to that.

3.5.2 Student's Questionnaire

The student questionnaire (see Appendix F) was administered to students diagnosed with SLDs in middle and high school (Grade 6 to 12). It includes 18 items that address the first and second research questions and takes around 20 minutes to complete. It starts with background information about grade level, gender and age, and it is divided into three parts entitled: "About Yourself", "About After-School Academic Programs", and "About Summer School Programs" respectively.

The first part is designed to obtain information about the students' present level of performance, difficulties, and interests. It includes 6 questions (items 1 to 6, see Appendix F) divided into 5 experience questions (items 1, 2, 3, 5 and 6, see Appendix F) and 1 opinion question (item 4, see Appendix F). The experience questions require the students to rate their grades (Very Good-Good- Fair) in the main subjects (English, Arabic, math and science), state the difficulties and who helps them at home, and report their usual activities after school during the regular school year and in the summer vacation. The opinion question investigates the kind of help the students would like to receive out of school with their studies.

The second part explores the students' prior encounters and attitudes toward after-school academic programs. It includes 10 questions (items 7 to 12, see Appendix F) divided into 2 experience questions (items 7-a and 7-b, see Appendix F) and 8 opinion questions (items 7-c, 7-d, 8-a, 8-b, 9, 10, 11, and 12, see Appendix F). The experience questions investigate whether the students have ever attended an after-school academic program or not and the reasons behind their enrolment in such programs in case they did. The opinion questions explore the students' attitude, belief, and reasons behind dropping the after-school academic program or not joining at all in case the student had dropped or not joined an after-school program respectively. The opinion questions also explore whether the student is willing to attend an after-school academic program during the current academic year to receive help for the final exams or not, and their expectations regarding the services offered, teachers' attitude, duration and frequency of sessions per week, and grouping method in such a program.

The third part elicits information about the summer school programs instead of the after-school programs. It includes 9 questions (items 13 to 18) divided into 2 experience questions (items 13-a and 13-b, see Appendix F) and 7 opinion questions (items 13-c, 14-a, 14-b, 15, 16, 17, and 18, see Appendix F). The only difference between the third part and the second part is that the second part includes a question about the students' attitude and belief regarding their withdrawal from the after-school program in case they did so. A similar item was eliminated from the third section; during piloting, this question confused students who considered that they have stopped attending the summer school just because the regular school year has started or the summer school was over without referral to any other reason regarding the efficiency or the results obtained from attending such a program.

All in all, the student’s questionnaire was designed to address the first two research questions. Table 3 displays the research questions and their corresponding items.

Table 3: Research Questions and Corresponding student’s Questionnaire items

Research Questions	Corresponding Student’s Questionnaire Items
Research Question 1: What problems do students with SLDs face and what kind of help is offered and expected for them in rural areas?	Item 1 – Item 2 – Item 3 – Item 4 – Item 5 – Item 6 – Item 7-a – Item 7-b – Item 9 – Item 10 – Item 11 – Item 12 – Item 13-a – Item 13-b – Item 15 – Item 16 – Item 17 – Item 18
Research Question 2: What challenges face an out-of-school-time academic program that caters for students with SLDs in rural areas?	Item 7-c – Item 7-d – Item 8-a – Item 8-b – Item 13-c – Item 14-a – Item 14-b

3.5.3 Teacher’s Questionnaire

The teacher’s questionnaire (see Appendix G) was intended to be administered to all teachers; however, 13 teachers were asked to complete the questionnaires based on the principal and the Head suggestions. It includes 17 items that address the first and second research questions and takes around 15 minutes to complete. An introduction includes the purpose of the study, its confidentiality, risks, benefits, the teachers’ rights, and the time needed to complete the questionnaire. The introduction also states the contact information (phone number and e-mail address) of the researcher and the IRB office in case teachers have any inquiries regarding the study and/ or their rights. After the introduction, teachers are asked to state background information about the grade level(s) and the subject(s) they teach, and the section(s) in which they teach (mainstream classes/ self-contained classes in the learning support department/ shadow teacher). The questionnaire is divided into 7 experience questions (items 1, 2, 3, 4, 12-a, 12-b and 13,

see Appendix G) and 11 opinion questions (items 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17, see Appendix G). The first four experience questions (items 1, 2, 3, and 4, see Appendix G) require the teachers to reveal the approximate number of students diagnosed with SLDs per class, to rate the grades (Excellent-Very Good-Good- Fair-Failing) that students with SLDs receive in the subjects they teach, to report the difficulties these students possess and to state whether these students complete their assignments at home or not.

Moreover, one experience question (item 12, see Appendix G) requires the teachers to reveal if any of their students diagnosed with specific learning disorder receives out-of-school academic support and explores the benefits the students gain from attending such a program or the reason behind dropping or not attending at all. The last experience question (item 13, see Appendix G) explores the parents' reactions towards the teachers' suggestions. The opinion questions explore the teachers' opinions regarding the kind of help that the students with SLDs should receive out of school with their studies and the necessity of the establishment of such a center in this geographical rural area. Also, the opinion questions require teachers to state their point of view regarding the services offered at such a center, the operation time (during summer and/or after school), the kind of students who should attend such a center, the time/ duration/ frequency of sessions, and the students' grouping criteria (number of students per group and the criteria of grouping). Moreover, the opinion questions investigate if teachers believe whether the grade level affects the gains the students attain from attending such a program and request the teachers to state the grade level(s) in which students benefit more. Finally, the opinion questions explore the teachers' attitude and readiness to cooperate with the center's teachers, and their expectations regarding the personal characteristics and qualifications of the leader and the teachers at such a center.

All in all, the teacher’s questionnaire was designed to address the first two research questions. Table 4 displays the research questions and their corresponding items.

Table 4: Research Questions and Corresponding Teacher’s Questionnaire Items

Research Questions	Corresponding Teacher’s Questionnaire Items
Research Question 1: What problems do students with SLDs face and what kind of help is offered and expected for them in rural areas?	Item 2 – Item 3 – Item 4 – Item 5 – Item 6 – Item 7 – Item 8 – Item 9 – Item 10 – Item 11 – Item 12-a – Item 15 – Item 17
Research Question 2: What challenges face an out-of-school-time academic program that caters for students with SLDs in rural areas?	Item 1 – Item 12-b - Item 13 - Item 14 - Item 16

3.5.4 Parent’s Interview Protocol

The third instrument, parent’s interview (see Appendix H), was administered to parents of students diagnosed with SLDs enrolled at this school. Five parents were contacted based on the Head’s recommendations. The parents’ semi-structured interviews were conducted over the phone. The parent’s semi-structured interview includes 20 items that address the first and second research questions and takes around 15 minutes to be administered. Parents were asked to provide information about their child diagnosed with SLDs: gender, age, and grade level. The interview consists of open-ended questions divided into 20 experience questions (items 1, 2, 3, 4, 5, 6, 14, 15-a, 15-b, 15-c, 15-d, 15-e, 15-g, 16-a, 16-b, 16-c, 16-d, 16-e, 16-f, and 19, see Appendix H) and 12 opinion questions (items 7, 8, 9, 10, 11, 12, 13, 15-f, 15-h, 17, 18, and 20, see Appendix H). The experience questions require the parents to state the identification process (their children’s age at which they recognized their learning difficulties and how they recognized the difficulties) and who diagnosed them. The experience questions,

also, require the parents to describe the grades their children receive in the main subjects (English, Arabic, math, science), the difficulties their children face and whether their children complete their homework at home or not. The experience questions investigate the kind of help the children receive at home and at school, the improvement the children attained, and the parents' level of cooperation with the school. Moreover, the experience questions explore the activities that the children perform after school and in the summer to gain information on whether the children have joined an out-of-school academic program and/or received any specialized services out of school. These latter questions demanded the parents' elaboration on the type of support the children have received, the reason behind receiving such a support, the duration, the efficiency, and the reasons for dropping out if they did. The opinion questions elicit the parents' perspectives regarding the kind of help or support their children need out of school and how such a center may help their children. The opinion questions also require the parents to provide their insights about the expected aim of such a center to provide maximum benefit for their children and about the services that should be available at such a center (parents are asked to rate certain criteria provided by the researchers). Also, the opinion questions explore the parents' speculation about the operation time (during summer and/or after school), the time/ duration/ frequency of sessions, the students' grouping (number of students per group and the grouping criteria), the personal characteristics and qualifications of the teachers and the leader at such a center, and their willingness to cooperate with the center's suggestions. Parents are also asked if they are willing to enroll their children in an out-of school academic program this year (during the current academic year to receive help for the final exam and during the coming summer).

All in all, the parent’s interview protocol was also designed to address the first two research questions. Table 5 displays the research questions and their corresponding items.

Table 5: Research Questions and Corresponding Parents’ Interview Items

Research Questions	Corresponding Parents’ Interview Items
<p>Research Question 1: What problems do students with SLDs face and what kind of help is offered and expected for them in rural areas?</p>	<p>Item 1 – Item 2 – Item 3 – Item 4 – Item 5-a – Item 6 – Item 7 – Item 8 – Item 9 – Item 10 – Item 11 – Item 12 – Item 13 – Item 14 – Item 15-a – Item 15-b – Item 15-c – Item 15-d – Item 16-a – Item 16-c – Item 16-d – Item 16-e – Item 17 – Item 18</p>
<p>Research Question 2: What challenges face an out-of-school-time academic program that caters for students with SLDs in rural areas?</p>	<p>Item 15-e – Item 15-f – Item 15-g – Item 15-h – Item 16-b – Item 16-f – Item 19 – Item 20</p>

3.5.5 Head of the Special Education Department’s Interview Protocol

The fourth instrument was the Head of the special education department’s semi-structured interview (see Appendix J) administered at the designated school. The Head is in charge of the whole special education department that includes 70 students with special needs. She holds a bachelor degree in special education and is currently pursuing her Master’s degree in special education. I conducted the face-to-face semi-structured interview in her office during my first encounter with her. It includes 19 items that address the first and second research questions and takes around 20 minutes to be administered. The interview consists of open-ended questions divided into 3 knowledge questions (items 1, 2, and 14-a, see Appendix J), 10 experience questions (items 3, 4, 5-a, 5-b, 5-c, 6, 14-b, 14-c, 14-d, and 18, see Appendix J) and 11 opinion questions (items 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, and 20, see Appendix J). The knowledge questions

require the Head to state the approximate number of students with special needs at the school, the number of students diagnosed with SLDs and the approximate number of students diagnosed with SLDs who receive an out-of-school academic support. The experience questions require the Head of the special education department to state the subjects in which students with SLDs usually have difficulties with, describe other difficulties these students face, and tell whether these students complete their homework at home or not. Furthermore, the experience questions investigate the help or support these students receive out of school and at school, the improvement observed, the progress measurement at school, and the parents' reactions towards the school's suggestions. The opinion questions elicit the Head's opinion regarding the kind of support these students need out of school and how such a center may help such students. The opinion questions, also, require the Head to state her opinion regarding the aim of such a center in order to provide the maximum benefit for students with SLDs and students who should attend such a center. Furthermore, the opinion questions investigate the Head's opinion about the operation time (during summer and/or after school), the time/ duration/ frequency of sessions, the students' grouping (number of students per group and the grouping criteria), the personal characteristics and qualifications of the teachers and the leader at such a center, the grade level at which students benefit the most, and the school's and teachers' readiness to cooperate with the center's teachers.

All in all, the Head's questionnaire was designed to address the first two research questions. Table 6 displays the research questions and their corresponding items.

Table 6: Research Questions and Corresponding Head’s Interview Items

Research Questions	Corresponding Head’s Interview Items
Research Question 1: What problems do students with SLDs face and what kind of help is offered and expected for them in rural areas?	Item 3 – Item 4 – Item 5-a – Item 5-b – Item 5-c – Item 6 – Item 7 – Item 8 – Item 9 – Item 10 –Item 11 – Item 12 – Item 13 – Item 14-a – Item 14-b – Item 14-c – Item 16 – Item 17
Research Question 2: What challenges face an out-of-school-time academic program that caters for students with SLDs in rural areas?	Item 1 – Item 2 – Item 14-d - Item 15 -Item18 - Item 19

3.5.6 Principal’s Interview Protocol

The fifth instrument was the Principal’s semi-structured interview (see Appendix K). The set of questions used was the same for the Head except for one question that explores the homework completion which was eliminated from the Principal’s interview based on piloting. Therefore, the Principal’s interview included 18 questions instead of 19. This similarity will ensure the validity and the reliability or trustworthiness of the results. According to Fraenkel et al. (2012), one of the procedures followed to improve reliability and validity is by checking one respondent’s portrayal of something against another participant’s portrayal of the same thing. Furthermore, the set of questions were the same as I believed that the Principal’s and the Head’s perspectives should be compared as they are people in authority and the most influential decision-maker at school. As a researcher, I was interested to compare how the Principal’s and the Head’s opinions coincide or diverge regarding the establishment of this center. The principal’s questionnaire was also designed to address the first two research questions. Table 7 displays the research questions and their corresponding items.

Table 7: Research Questions and Corresponding Principal’s Interview Items

Research Questions	Corresponding Principal’s Interview Items
Research Question 1: What problems do students with SLDs face and what kind of help is offered and expected for them in rural areas?	Item 3 – Item 4-a – Item 4-b – Item 4-c – Item 5 – Item 6 – Item 7 – Item 8 – Item 9 – Item 10 –Item 11 – Item 12 – Item 13-a – Item 13-b – Item 13-c – Item 15 – Item 16
Research Question 2: What challenges face an out-of-school-time academic program that caters for students with SLDs in rural areas?	Item 1 – Item 2 – Item 13-d – Item 14 – Item17 – Item 18

Administering Principal’s Interview

The official face-to-face interview was conducted with the Principal during my third visit to the school. The interview took place in her office at school and I recorded the interview data by taking notes. It took around 20 minutes. The Principal was enthusiastic and motivating during the interview.

3.5.7 Expert’s Interview Protocol

The Expert’s semi-structured interview (see Appendix L) was the sixth instrument. The expert’s interview includes 24 items that address the first, second and third research questions and takes around 20 minutes to administer. Before initiating the interview, a rapport was established with the expert and I re-stated the purpose of the study and the significance of eliciting information from an expert in the field. The Expert’s interview consists of open-ended questions divided into 12 knowledge questions (items 1-a, 1-b, 1-c, 2-a, 2-b, 2-c, 2-d, 2-e, 2-f, 7, 8, and 24 see Appendix L.), 8 experience questions (items 3, 4, 5, 17, 18, 21, 22, and 23 see Appendix L.) and 11 opinion questions (items 6, 9, 10, 11, 12, 13, 14, 15, 16, 19, and 20 see Appendix L.). The knowledge questions require the expert to state the approximate

number of students with SLDs who receive academic support at the center per month, the place where most of these students live, and who usually refers them. The knowledge questions also examine how the center caters for students with SLDs in terms of services provided, remedial and intervention programs and strategies used, curriculum followed, and progress measurement. Furthermore, the knowledge questions require the Expert to report the average number of students living in rural areas who seek the center's services, the number of students diagnosed with SLDs living in rural areas and the kind of services provided by the center for students living in rural areas. The last knowledge question requests the Expert to explain the procedures needed to legalize such a center. The experience questions require the Expert to state how the number of students enrolled at the center varies between the school year and the summer vacation, the difficulties students with SLDs usually face, and the reason students with SLDs pursue the center's help. Moreover, the experience questions require the Expert to describe how the parents and the schools react to the center's suggestions about the students. The experience questions also request the Expert to describe the professional development process, the evaluation process of the center's performance and the availability of the right candidates. The opinion questions elicit the Expert's views regarding the support needed out of school for students with SLDs, the help that should be provided for these students by such a center in rural areas, the expected aim of such a center in rural areas in order to provide the students with SLDs the maximum benefit, and the students who should attend such a center. In addition, the opinion questions investigate the Expert's point of view in regards to the center's operation time (during summer and/or after school), the time/ duration/ frequency of sessions, the students' grouping (number of students per group and the grouping criteria), the personal

characteristics and qualifications of the teachers and the leader at such a center, and whether the grade level of the students affect their gain in out-of-school programs.

All in all, the expert’s interview protocol was also designed to address the three research questions. Table 8 displays the research questions and their corresponding items.

Table 8: Research Questions and Corresponding Expert’s Interview Items

Research Questions	Corresponding Expert’s Interview Items
Research Question 1: What problems do students with SLDs face and what kind of help is offered and expected for them in rural areas?	Item 4 – Item 8 – Item 5 – Item 6 – Item 9 – Item 10 – Item 11 – Item 12 – Item 13 – Item 14 – Item 16 – Item 20
Research Question 2: What challenges face an out-of-school-time academic program that caters for students with SLDs in rural areas?	Item 1-a – Item 1-b – Item 1-c – Item 3 – Item 7 – Item 15 – Item 17 – Item 18 – Item 19 – Item 21 – Item 22 – Item 23 – Item 24
Research Question 3: What are the available useful remedial and intervention programs and research-based strategies recommended for students with SLDs?	Item 2-a – Item 2-b – Item 2-c – Item 2-d – Item 2-e – Item 2-f – Item 19

Administering Expert’s Interview

The official face-to face interview was conducted with the Expert at her office at the center after briefly explaining the purpose of the study. The Expert stated the essential need of such professional centers in rural areas. The interview was recorded using paper and pencil and took 23 minutes.

Data Analysis

The instruments used in this qualitative study encompassed the use of questionnaires and interviews. Interviews were recorded using pencil and paper during

administration. Therefore, all interviews were transcribed prior to data analysis. Following data collection, data analysis using coding and simple frequency counts was performed to answer the three research questions. Coding or categorizing plays a vital role in data analysis (Basit, 2003) as it involves subdividing the data and assigning categories (Dey, 1993). Fraenkel et al. (2012) point out that coding is the most common data analysis technique used by qualitative researchers. After coding and performing simple frequency counts, data was compared to the literature review to determine convergence between the findings and existent research.

Conclusion

In conclusion, this chapter presented the methodology used in this study and the data analysis method adopted. The items in each instrument are interpreted by showing how they relate to the research questions. The next chapter presents the results obtained after administering the instruments and analyzing the data.

Chapter Four

Results and Discussion

This chapter presents the results of data analysis followed by a discussion of the data obtained. Two different questionnaires were administered to 6 students clinically diagnosed with SLDs and 11 teachers who teach at a school that cater to students with special needs. Interviews were conducted with 5 parents of students diagnosed with SLDs, the Principal, the Head of the special education department, and an Expert. The study findings are finally used in setting up a Center for students with SLDs.

4.1 Results

First Research Question

What problems do students with specific learning disorders face and what kind of help is offered and expected for them in rural areas?

4.1.1 Problems Students with SLDs Face

Students' Responses

Students were asked to describe their grades in the main subjects and report the subjects in which they have difficulties. Students' descriptions of their grades ranged between good and fair. Table 9 summarizes the students' responses regarding these two questions. Moreover, other academic difficulties reported by students included difficulties in memorizing and language-related difficulties such as difficulties in reading, writing, spelling and grammar.

Table 9: Grades' Descriptions by Students with SLD Across Subjects

Subjects	Grades' Descriptions Across Main Subjects			Number of Students Facing Difficulties in Respective Subjects
	Very Good	Good	Fair	
English	-	3 students	3 students	4 students
Arabic	-	3 students	3 students	5 students
Math	4 students	2 students	-	-
Science	1 student	3 students	2 students	2 students
Social Studies	N.I.	N.I.	N.I.	1 student

**N.I.: Not Included*

Students were also asked to state the reasons behind joining an out-of-school program in case they did. The two students who attended an out-of-school academic program stated that they joined the program to receive help in English (reading and writing).

Teachers' Responses

Teachers' descriptions of students' grades ranged between good, fair and failing across different subjects (For detailed information, check Appendix M). Other difficulties reported were language and math related such as difficulties in acquiring and grasping new concepts, having short attention span, lack of concentration, critical thinking, reasoning and logical thinking, failing to follow instructions and complete assigned tasks, working independently and keeping up with classmates. The majority of

teachers reported that most students with SLDs complete their homework at home. However, one teacher reported that only students with SLDs who have tutors at home complete their homework.

Parents' Responses

Most of the parents reported that their children were identified at the age of 7 when the learning demands required reading and that their child failed to read independently. Most parents stated that the school drew their attention and referred them to an educational evaluator who performed the official diagnosis. However, one parent stated that she discovered her son's disability after recognizing that he was not performing well on tests due to his inability to read instructions at times. All parents claimed that a learning disorder was suspected before their child was officially diagnosed as they were aware of the difficulties at school regardless of the support being provided at school and re-teaching being provided at home. All parents described their children's current grades across main subjects as excellent as their children who attend mainstream classes are accompanied by a shadow teacher who provides them with one-on-one re-teaching and reinforcement sessions when needed. However, they reported language related difficulties, short attention spans, lack of concentration, difficulties following directions and lack of self-confidence and self-esteem. All parents stated that their children do complete the required tasks at home, but they need assistance.

Head of the Special Education Department's Response

The Head reported that students with SLDs face difficulties across all subjects as they all have language related problems. She mentioned that some exhibit reasoning and logical thinking problems and that most of them complete their homework at home, but their parents or tutors assist them.

Response by Principal and Expert

The Principal reported that students with SLDs face difficulties across all subjects as they all have language related problems as well as social/behavioral problems and that most students with SLDs lack self- confidence and some of them exhibit difficulties in interacting with peers when they first transfer from another school as other nearby schools do not provide an inclusive environment. The Expert reported that students' problems reside in languages which cause all other problems.

Conclusion

In summary, according to all participants, students with SLDs exhibit academic difficulties that imply the significant need for proper assistance out of school. The major problem reported by all participants was acquiring language skills (English and Arabic). Table10 presents in detail the difficulties students with SLDs face as stated by different participants.

Table 10: Difficulties Students with SLDs Face Stated by Participants

Participants' Views						
Difficulties	Students' Responses	Teachers' Responses	Parents' Responses	Head of S.E.D.'s Response	Principal's Response	Expert's Response
Language-Related Difficulties						
reading, writing, spelling, grammar	√	√	√	√	√	√
Learning Difficulties						
Grasping new concepts		√				
Memorizing	√					
Attention Difficulties						
Short attention spans		√	√			
Lack of concentration		√	√			
Higher Order Thinking Difficulties						
Critical thinking difficulties		√				
Reasoning and logical thinking problem		√		√		
Classroom Management Difficulties						
Failing to follow directions		√	√			
Failing to complete		√				
Failing to work independently		√				
Keeping up with classmates		√				
Social / Behavioral Difficulties						
Lack of confidence/ lack of self-esteem			√		√	
Social integration problem					√	

4.1.2 Help Offered for Students with SLDs in a Rural Area

Students' Responses

All students reported that they complete their homework after school, and during the summer they play sports and do fun activities. Only one student in grade 8 claimed that he currently attends speech therapy sessions. Most students reported that either their parents or private tutors help them in completing their homework after school. As for joining out-of-school programs, only the two grade 7 students claimed that they have attended such programs: one student stated that she joined an after-school program when she was in grade 3 and the other student claimed that he joined a summer school when he was in grade 2. Most of them admitted that they do not receive any specialized intervention.

Teachers' Responses

Most teachers reported that students with SLDs have tutors at home to help them complete their homework, re-teach concepts, and provide extra practice. Two teachers reported that slight improvement is observed in the students' performance upon the provision of such a help. Therefore, according to teachers, students with SLDs receive help in completing their homework, but this help is somehow insufficient.

Parents' Responses

Most parents reported that they help their children at home in completing their homework, but one parent reported that her daughter has a tutor at home. All parents reported that their children have not attended an out-of-school program as there isn't any specialized center in their area. Three parents (out of 5 parents) stated that their children have attended speech therapy sessions once or twice a week for around a year but these sessions did not benefit their child and they were not notified about the

programs and/or strategies utilized by the specialists. Regarding the services offered at school, all parents reported that the students benefited and improved upon the provision of these services such as academic and behavioral services (For detailed responses, check table 11.).

Head of the Special Education Department's Response

The Head was asked to describe the services offered out of school and at the school for students with SLDs. She reported that most students have tutors at home or their parents help them in completing their homework, but she clarified that parents and tutors provide the wrong support. She claimed that most of the parents and tutors help students in completing their homework by simply providing the answers to the students instead of providing the required explanation. She stated that there isn't any center that provides specialized out-of-school support for these children, and that few of the students attend speech therapy sessions or occupational therapy sessions out of school based on their parents' decisions but that these sessions are rarely beneficial. As for the services offered at the school, these include speech therapy sessions or occupational therapy sessions when needed as well as academic and behavioral aspects (Table 11). The Head reported that students' progress is measured by observing the students' wellbeing, feedback from teachers, therapists and parents and checking their grade reports.

Principal's Response

The Principal reported that there isn't any center that provides specialized out-of-school support for students with SLDs, and theoretically speaking, she doesn't even recommend that students attend out-of-school programs or receive any specialized intervention services. She stated that in principle the school is expected to provide all the

required services for students, and students are expected to complete their homework independently. However, she pointed out that the Lebanese curriculum requirements hinder the provision of services often times. According to her, most of the time, the help provided for students with SLDs at school is for compensatory purposes rather than remediation (see Table 11). She claimed that upon developing the IEPs for students with SLDs, the school is always concerned about meeting the national curriculum's demands as many of these students have to sit for official exams in grade 9 and grade 12 and require these degrees to enroll at universities later on. Also, many schools in this rural area lack the ability to provide the required support, so the establishment of such a center might be beneficial if it provides professional specialized support. She stated that the students' progress is measured by observing the students' social behavior, feedback from teachers, therapists and parents and checking the students' grade reports. According to the Principal, "Students become happier once provided with the right services."

Table 11: Participants’ Views on Help Offered for Students with SLDs at School

Support Provided	Participants	Parents	Head of the Special Education Department	Principal
Academic Support				
Shadow teacher in mainstream classes		√	√	√
Integration program			√	√
Parallel classes			√	√
Providing Specialized literacy sessions by using an online specialized program: Power Reading Online (PRO)			√	
Developing IEP for each student			√	√
Accommodations in class		√	√	√
Modification on tests		√	√	√
Speech Therapy Sessions		√	√	√
Occupational Therapy sessions			√	√
Social / Behavioral Support				
Empowering self- confidence through encouragement		√	√	√
Offering an inclusive setting		√	√	√

Expert’s Response

The Expert stated that her Center offers a diagnostic assessment performed by a certified trilingual educational evaluator which takes around two to three sessions to complete, and that students in rural areas mainly seek her Center for diagnosis purposes. Furthermore, students living in rural areas can be offered intensive prolonged intervention sessions that can last for 4 hours once or twice per week and can benefit

from an online reading research-based program called Mindplay which is recommended for students having reading disabilities who can work on it from their houses or at their schools. The program provides reports that inform the Expert and the parents about the student's usage (time, day and duration) errors, progress, improvement, reading fluency and the present level of performance. These reports allow the expert to follow-up on students using MindPlay without asking them to attend sessions at the Center unless one-on-one sessions are needed.

Conclusion

In summary, according to all participants, students with SLDs, living in rural areas in Lebanon such as the area where this study was conducted, are in need of specialized out-of-school support regardless of the support being provided at school. Centers located in other geographical areas can provide help, but it is inadequate.

4.1.3 Expectations for Students with SLDs at an Out-of-school Program in a Rural Area

Students' Responses

Students were asked to state the kind of support they need out of school, rate the importance of certain features exhibited by and offered at such a Center, and state the frequency and duration of sessions and the students' grouping method (number of students per group) at such a Center (see Table A2, Appendix N). All students reported that they need help in the English language (reading, reading comprehension, writing, spelling and grammar). Most of the students reported that receiving help in English, Arabic, and math is either very important or important and homework completion and test preparation at an after-school program also varied between very important and important. Most students believed that it is important for a summer school to prepare

students for the following year and to integrate fun activities and that it is very important for teachers at the Center to be caring and for students to feel comfortable talking to teachers. As for the operational time of the Center, most students believed that an after-school program should be 5 times per week for 2-3 hours per session, and students should be divided into small groups. Students had different views regarding the number of days per week at the summer school. Two students believed it should operate 1-2 day per week, two believed that it should be 3-4 days per week; one stated that it should be 5 days per week and another stated that it should be 6 days per week. As for the duration of sessions and students' grouping in the summer school, most students agreed that sessions should be 2-3 hours per day and students should be taught in small groups.

Teacher's Responses

Teachers reported that students with SLDs need to be re-taught the lessons at times; learning objectives and skills need to be reinforced and extra practice need to be provided in order to help these students develop into independent learners. Most of the teachers reported the need for such a Center that caters for students with SLDs in their rural area on condition that this Center will employ specialized teachers who can provide one-on-one sessions. Moreover, at this Center teachers should offer extra support and remedial help for students in areas of weaknesses. Most of the teachers reported that offering help for students in English, Arabic, and math as well as in homework completion and test preparation is either very important or important and that it is very important for a summer school to prepare students for the following year and to integrate fun activities. Most teachers believed that is very important for teachers at the Center to be caring and approachable. As for the operational time of the Center, most teachers reported that such a Center should operate during the academic year and during the

summer for 1-2 months. As for the frequency of sessions, teachers reported that students should receive support at the Center for 3-4 days per week during the school year and the summer. Regarding the duration of sessions, most teachers reported that students should attend the after-school program for 1 hour per day. However, the teachers' responses regarding the duration of sessions in the summer school program varied between 1 hour per day and 4 to 5 hours per day. Regarding the students' grouping method and criteria, teachers reported that students should be grouped in small groups according to their abilities and grade level at such a Center and that students can be grouped in groups of 10 to 15 students in the summer school. Regarding the Center's staff characteristics, teachers reported that tutors at such a Center are expected to be patient, passionate, and dedicated. Also, one teacher reported that tutors at the Center are expected to readily accept constructive criticism. Regarding the qualifications, teachers reported that the Center's tutors should be knowledgeable, well-trained and well experienced. As for the leader or director of such a Center, teachers reported that he/she should be patient and believe in students with SLDs in addition to exhibiting leadership skills. Moreover, he/ she should be a special educator who continuously seeks professional development. As for the students who should receive support at such a Center, the teachers stated that all students with SLDs should join such a Center if appropriate services are provided in addition to students exhibiting any academic gaps.

Parents' Responses

Parents reported that students with SLDs need support in languages (English and Arabic) mainly. One parent stated that the academic program at such a Center should enhance the students' reading comprehension skills, one parent emphasized that vocational skills should be integrated within the Center's curriculum. According to

parents, the aim of such a Center should be filling in the missing gaps, helping students with daily homework, boosting the students' confidence, teaching them daily life skills, guiding them for future career choices and guiding parents of students with SLDs on how to deal with their children. Most parents reported that offering help for students in English and Arabic as well as in homework completion and test preparation is very important. As for the help offered in math, most parents reported that it is important, but not as important as English and Arabic. Regarding the services at the summer school, two parents found it very important for students to get prepared for the following year at the summer school program while three others stated such a service is not important at all. One parent stated that the summer school should focus on re-teaching the skills taught the previous year instead of preparing children for the following year. Regarding the provision of nonacademic activities at the summer school, parents' ratings were divided between important and not important at all. All parents stated that it is very important for teachers at the Center to be caring and reachable. As for the operational time of the Center, most parents reported that such a Center should operate during the school year and during the summer vacation for around 1 month. They all stated that the after-school sessions should be 5 days per week for 2-3 hours per day, whereas, most of them stated that the summer school sessions should be 3-4 days per week for 2-3 hours per day. As for the students' grouping method and criteria, parents reported that students should be grouped in small groups according to their abilities and grade level at such a Center. Regarding the Center's staff characteristics, parents reported that tutors at such a Center are expected to be patient, compassionate, and dedicated. According to the parents, the leader or director of such a Center should be dedicated and considerate especially when dealing with the parents. One parent reported that the leader should aim

at establishing a nonprofit organization that does not seek financial gain solely.

According to this mother, the leader should take into consideration the additional high fees that parents of students with SLDs have to pay at private schools in Lebanon to enroll their students under the umbrella of special education departments. According to parents, the Center's tutors should be knowledgeable and the leader must be a specialist in the field of special education.

Head of the Special Education Department's Response

The Head stated that students with SLDs need help in languages and need to be provided extra drilling and practice. They are expected to receive specialized support in English and Arabic delivered by special educators or speech therapists who utilize research-based reading programs. According to her, the aim of such a Center should be helping students prosper into independent learners. Regarding the operational time of the Center, the Head reported that such a Center should operate after school during the school year and during the summer vacation for around 1 month. She stated that the after-school sessions should be 5 days per week for 2-3 hours per day and the summer school sessions should be 3-4 days per week for 2-3 hours per day. As for the students' grouping method and criteria, the Head reported that students should be grouped in small groups according to their abilities and grade level at such a Center. Regarding the Center's staff characteristics, the Head reported that tutors at such a Center are expected to be patient, energetic and cooperative with the students' teachers at school. According to the Head, the leader or director of such a Center should believe in students with SLDs, the Center's tutors should be knowledgeable and well-trained special educators, and the leader must be a specialist in the field of special education. Regarding the students who should receive support at such a Center, the Head stated that all students

with SLDs should join such a Center in addition to students exhibiting any academic gaps especially students failing to read at grade level and those failing to follow directions.

Principal's Response

The Principal reported that students with SLDs need support in languages. They are expected to receive specialized instructions delivered by special educators, speech therapists and/or occupational therapist who utilize research-based programs. According to her, the aim of such a Center should be boosting students' confidence and helping students prosper into independent learners. Regarding the operational time of the Center, the Principal reported that such a Center should operate after school during the school year and during the summer vacation for around 1 month. She stated that the after-school sessions should be 5 days per week for 2-3 hours per day and the summer school sessions should be 3-4 days per week for 2-3 hours per day. As for the students' grouping method and criteria, the Principal reported that students at such a Center should be grouped in small groups according to their abilities and grade level. Regarding the Center's staff characteristics, the Principal reported that tutors at such a Center are expected to be independent thinkers. The Principal reported that teachers at the Center are expected to cooperate with the students' schools and understand their mission, and the leader or director of such a Center should be patient and compassionate leader who believes in students with SLDs and exhibits ethical commitment. According to her, the Center's staff should be knowledgeable and well-trained. In her opinion, in order to achieve success, the educational background of the Center's staff is not sufficient on its own; it is essential for the staff to have the will and dedication to help students succeed. The Principal stated at her school most of the shadow teachers and special educators are

ideal teacher candidates for this Center. The Principal stated that all students with SLDs should attend such a Center to receive remedial help.

Expert's Response

The Expert reported that students with SLDs need support in languages mainly. She emphasized that they need to receive specialized instructions delivered by special educators who utilize research-based corrective programs. The Expert stated that students with SLDs should receive the appropriate interventions that target the impaired areas for a certain period of time until they are up to grade level and that completing homework and test preparation should be of minimal concern at such a Center. In her opinion, such a specialized Center should aim at filling in the missing gaps by using corrective programs to help students develop into independent learners. Regarding the operational time of the Center, the Expert reported that students should receive intensive intervention sessions in order to attain improvement and that the Center should offer one-on-one intensive individualized programs that operate after-school during the school year and in the summer. The after-school sessions should be 5 days per week for 1-2 hours per day and the summer school sessions should be 3-4 days per week for 2-3 hours per day. Moreover, it would be ideal if students can attend the summer school program for 5 days per week. The Expert reported that instructions should be delivered in one-on-one sessions. Regarding the Center's staff characteristics, tutors at such a Center are expected to be patient and devoted. She stated that the leader or director of such a Center should be a leader and "not a boss" who believes in students with SLDs. The leader should be aware of the parents' financial constraints and should take this issue into consideration when planning the fees. She reported that parents of children with SLDs have to pay addition fees at private schools to enroll their children in the specialized

departments that cater for their children's needs. According to her, the Center's staff should be knowledgeable and well-trained and it is more preferable to employ novice teachers at the Center as it is easier to train these teachers than training experienced teachers who already have their own teaching strategies and philosophies. The Expert stated that all students with SLDs should join such a Center as the help being provided at schools currently is inadequate and doesn't aim at remediating the learning disorders.

In conclusion, according to the Expert's expectations, the Center that offers an out-of-school academic program for students with SLDs should operate all year long and students are advised to receive intensive intervention sessions at such a Center for a certain period of time. The Center should aim at helping students improve their skills by utilizing research-based strategies and programs. The Center's staff is expected to be patient and well-trained taking into consideration the parents' financial constraints.

Conclusion

According to the participants' responses, a Center that offers an out-of school program that caters for students with SLDs should aim at helping these students develop into independent learners by providing intensive intervention sessions and the appropriate assistance in completing the assignments. All participants agreed that such a Center should operate after school during the school year and in the summer vacation. The majority of participants agreed that the after-school sessions should be 5 days per week for 2-3 hours per day and the summer school sessions should be 3-4 days per week for 2-3 hours per day. As for the students' grouping method and criteria, the majority of participants reported that students should be grouped in small groups according to their abilities and grade level at such a Center.

Summary of Responses Regarding the First Research Question

In conclusion, the responses to the first research question highlight that according to all participants, students with SLDs exhibit language-based difficulties that need to be addressed out of school by caring, patient and devoted specialists. The participants' responses revealed that learning centers that cater for students with SLDs located in rural areas in Lebanon such as the area where the study was conducted are essential to guarantee the success of students with SLDs regardless of the services offered at school. Most participants emphasized that the aim of such a Center should be developing students into independent learners by providing the appropriate support after school during the school year and in the summer vacation. However, participants shed light on few challenges that might hinder the success of such a Center. The challenges are addressed in the second research question. The following paragraph discusses the responses regarding the second research question.

Second Research Question

What challenges face an out-of-school-time academic program that caters for students with specific learning disorders in rural areas?

4.1.4 Challenges for Establishing a Learning Center for Students with SLDs in a Rural Area

Students' Responses

Most of the students reported that they are unwilling to join such an out-of-school program this year, neither for the final exam nor for the summer. Yet, when asked about the reason for not attending an out-of-school program, they reported there is not any program they know of. One student reported that the reason for not attending an out-of-school program is that her parents cannot afford such a program. The only student

who reported that he has attended an after-school program claimed that dropped it because he doesn't need any help anymore.

Teachers' Responses

Almost all teachers reported that there is at least 1 student diagnosed with SLDs in each mainstream class. Most teachers reported that there is not any professional out-of-school program that serves students with SLDs in their rural area. They reported that students tend to seek help by employing private tutors. Almost all teachers reported that students who have tutors after school usually show slight insignificant improvement. Regarding the grade level, all teachers reported that students benefit more if in early elementary grades. All teachers reported that they are willing to cooperate with the Center's staff. They reported that parents are usually appreciative and respond positively to the school's suggestions.

Parents' Responses

Most parents reported that they do not enroll their children in an out-of-school program because their rural area lacks professional centers. They reported that most available centers aim at helping students with their agenda only disregarding the students' abilities and needs. Also, some of them reported that the speech therapy and occupational therapy sessions their children have attended were ineffective and did not significantly help their children. One parent stated that some of these sessions are waste of time and money. Parents reported that they either help their children or employ private tutors after school to assist their children in meeting the curriculum demands. Most parents stated that they are willing to enroll their children in the summer school if such a Center is to be established. Most of them reported that for this year, they prefer not to change their children's routine by enrolling them in an after-school program. Only

one parent reported that she is willing to enroll her son in such a program for the final exam as she is struggling when helping him study for exams. Parents emphasized that the Center's fees should be reasonable and affordable as they are already paying additional tuition fees at the private school for enrolling their child in the special education department. All parents reported that they usually abide by the school's recommendations as they believe that school's decisions are for their own child's benefits. They all stated that they are willing to readily accept the suggestions of such a Center if these suggestions aim at improving their children's learning experiences. However, parents emphasized that such a Center should be transparent when dealing with parents by sharing the objectives taught and the programs used. One parent stated that the Center's leader is expected to communicate with her regularly about her daughter's teaching process.

Principal's and Head of the Special Education Department's Responses

The Principal and the Head reported that there are 70 students out of 870 in the special education department. They reported that 13 of these 70 students are diagnosed with SLDs. Both the Principal and the Head stated that students with SLDs do not attend out-of-school programs because there is not any qualified program in this specific rural area. They reported that even speech therapy and occupational therapy sessions provided out of school are usually inefficient as the specialists rarely cooperate with the school. Therefore, they do not recommend that students attend such sessions out of school. They reported that most students seek private tutors who assist them after school by helping them complete their daily assignment without providing any specialized interventions. Both the Principal and the Head reported that parents are usually cooperative and abide by the school's recommendations. Moreover, they showed the school's willingness to

cooperate with the Center staff. However, the Principal pointed out that the Center's mission should coincide with the School's mission. Regarding the question that investigated whether the students' grade levels affect their gain at such a Center, the Principal and the Head had different points of views. The Principal believed that students with SLDs in middle and high school would gain more benefits at such a Center as the curriculum demands in these grades are higher and they have less time at school to receive the appropriate help. The Head reported that students would benefit more in lower elementary as they are more receptive at this age.

Expert's Response

The Expert reported that the average number of students with SLDs receiving help at her Center is around 20 students per month, that many students living in rural areas seek her Center for diagnostic purposes, and that very few students living in rural areas seek the Center's help for one-on-one sessions although she offers them the possibility of receiving intensive sessions (4 hours per day). She claimed that most rural areas lack qualified centers that provide the appropriate help for students and that parents are usually cooperative with her suggestions as she shares with them the teaching objectives and programs utilized. She claimed that she thoroughly explains for parents the methods and strategies used and that parents are regularly called for meetings to discuss their children's progress. According to her, such an awareness and clarity makes parents more cooperative and more understanding of their child's abilities and capabilities. She reported that most of the teachers are cooperative; however, some are obliged by their managers to cooperate. The expert reported that it would not be challenging to find the right candidates in rural areas; any person who has an educational background and willing to work with students with SLDs can be trained to become an

effective teacher who professionally delivers intervention programs. She emphasized that teachers should be well trained and followed-up on a regular basis and that the staff's professional development is maintained by offering them internal workshops and sending them to other institutions where they can receive training and workshops. She reported that the Center's overall performance is measured by measuring the student's progress and improvement mainly. Moreover, she seeks to attain the parents' and the school's satisfaction by meeting their expectations. Also, the Center's tutors' opinions and points of views should be valued and taken into consideration; and the Center's leader or director should take into consideration the financial constraints parents of students with SLDs face. The Expert also reported that legalizing such a Center in Lebanon does not require any special paper. The leader or director should follow the same procedure when establishing any firm. Finally, the expert mentioned that professionals at such a Center should avoid labeling students. She suggested that such a Center should be under the umbrella of improving language skills as it might be taboo for some parents to enroll their children at such centers in rural areas. She reported that it might be challenging to help students with SLDs complete their homework during the school year at such a Center, so it would be enough to offer intensive corrective sessions rather than wasting time on homework completion.

Summary of Responses Regarding the Second Research Question

In conclusion, the responses to the second research question highlight that financial constraints are the main challenge of such a Center in rural areas. The staff at such a Center should offer professional help for all students that ensures the students' progress and improvement and should develop a rigorous plan for each student in order

to meet the community's need of filling in the missing gaps and helping in daily assignments.

Third Research Question

What are the available useful remedial and intervention programs and research-based strategies recommended for students with specific learning disorders?

4.1.5 Remedial and Intervention Programs and Research-Based Strategies

Recommended For Students with SLDs

Expert's Response

The Expert reported that the students with SLDs receiving help at her Center usually exhibit reading disabilities. The research-based programs utilized include MindPlay, Recipe for Reading, My First letters, Lindamood Phoneme Sequencing Therapy Program and Visualizing and Verbalizing programs. Programs are chosen depending on the students' needs and areas of weaknesses. She usually follows the scope and sequence of the intervention programs which include assessments embedded within them; the teachers delivering these programs are well trained by specialized experts.

Summary of Responses Regarding the Third Research Question

In conclusion, the responses to the third research question highlight that research-based programs should be delivered at such a Center in order to properly serve students with SLDs.

4.2 Discussion

The obtained results revealed a good fit between the participants' responses and the available literature. The following paragraphs compare the results and the available literature.

According to all participants, students with SLDs have problems in acquiring language and/or higher order thinking. These findings align with the literature review that clearly states that students with SLDs have problems in reading, writing, and/or math. Other problems reported by the participants were also mentioned in the reviewed studies such as cognitive problems, concentration problems and social problems. As for the help offered for students with SLDs living in Lebanese rural areas, the available literature is scarce and findings were dependent on the participants' responses. All participants reported that this particular school, which caters for students with special needs, offers helpful and useful services for students with SLDs, but these services are insufficient. Regarding the help expected for students with SLDs, the participants' argued that students with SLDs should be offered help out of school in homework completion and in areas of weaknesses to be able to attend mainstream classes independently. According to literature, such kind of help should be offered at schools that are supposed to promote and offer an inclusive environment in principle. However, participants pointed out that although they are aware of the school's responsibilities, they believe that many factors hinder the provision of such services at schools in Lebanon which justifies the significant of an out-of-school time support program. For example, the Principal mentioned that meeting the curriculum's demands create an obstacle at times as less time is available to provide remedial support for students in

need. Other expectations regarding the operational time, staff's characteristics and services offered at the Center were dependent on the participants' points of views mainly. These expectations were used in designing the Center and mentioned in the guidebook included in the recommendations section.

Regarding the challenges of establishing such a Center in a rural area in Lebanon, the findings were chiefly dependent on the participants' views. The two main challenges highlighted were the financial constraints and the professionalism of such a Center. Almost all participants argued that such a Center providing specialized support might have very high rates that parents cannot afford, and this could create a barrier for enrolling their children at such a Center. However, data analysis revealed that most participants preferred small groups on one-on-one sessions which were mainly promoted by the Expert. Therefore, I assumed that the out-of-school program should aim at delivering information for students in small groups when possible and utilize one-on-one sessions only when delivering the remedial corrective programs. Upon grouping the students in small groups rather than providing one-on-one sessions for every student, the cost will be reduced as the number of teachers will be less. Therefore, grouping the students in small groups might somehow address the financial constraint challenge. The second challenge highlighted by participants was the challenge of offering the required help for students. Almost all participants argued that the main challenge of such a Center is to ensure the students' progress and improvement. They all revealed their willingness to cooperate with such a Center on condition that the staff at such a Center develops a rigorous plan for each student. Therefore, the guidebook, presented in the recommendation section, included that the staff members in collaboration with the parents and the school staff will develop an individualized educational program (IEP)

for every student who joins the Center. The IEP will include the expected objectives, the learning outcomes and the progress measurement methods for each student. IEP will be reviewed regularly at the end of each school trimester and upon the parents' request. Such a plan will ensure that students are closely followed-up and the required services are provided efficiently.

Regarding the remedial and intervention programs and strategies recommended for students with specific learning, both the Expert's responses and the literature reviews recommended the use of research-based programs and strategies. The programs recommended by the Expert were the same programs discussed in the literature review.

Conclusion

In conclusion, this chapter presented the results obtained and a discussion of the findings. The next chapter presents the conclusion which includes the limitations and the recommendations from this study.

Chapter Five

Conclusion

In conclusion, this study provided an overview of the special education field in Lebanon and proposed a design for a Center that caters for students with SLDs. The Center will adopt out-of-school time (OST) program that operates during the school year after school and during the summer time. The following section describes the limitations and the recommendations of this study. The recommendations are summarized in the form of a 'guidebook' that includes the Center's features. These features are based on the reviewed available literature.

5.1 Limitations

The limitation of this study resides in the small number of participants due to time constraints. Also, the different definitions that were adopted specific learning disorders vs. specific learning disabilities created some confusion during the literature review. Moreover, different naming for out-of school programs: After-school, summer school extended program, and school-aged programs created another limitation during the literature review. Finally, the lack of research conducted in Lebanon regarding special education services was one of the major limitations in this study.

5.2 Recommendations

5.2.1 The Guidebook

Mission and Vision

The mission of the learning support center is to create a safe environment where individuals of all ages diagnosed with specific learning disorders will develop into independent learners.

To achieve this, the learning support center will adopt an OST program that provides bilingual (English and Arabic) academic support tailored to the individual's needs. An Individualized Education Program (IEP) is developed for each learner in order to fill in the academic gaps by using research-based intervention programs in teaching reading (English and Arabic), writing, and/or mathematics in an environment of ongoing progress measurement. The IEP objectives will also include research-based strategies that aim at assisting students in completing their homework during the school year and sustaining academic knowledge and skills during the summer.

The Center caters for students with specific learning disorders and raises awareness in the community about the specific learning disorders, importance of early identification, and effective interventions. It aims to clarify that specific learning disorders can be dealt with as learning differences.

Specific Learning Disorder

The term Specific Learning Disorder is the term adopted by the American Psychiatric Association (APA) in its fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). The DSM-5, published in 2013, is considered the latest standard reference for classifying mental disorders. Therefore, at this Center, the term Specific Learning Disorder is adopted taking into consideration other alternative terms used. The alternative terms are discussed later in this guidebook.

Diagnostic Criteria

In DSM-5, the APA (2013) clearly states that specific learning disorder is only diagnosed when an individual starts formal school; however, it can be diagnosed any time afterwards if 4 diagnostic criteria are met. The comprehensive clinical assessment should be performed by an expert specialized in specific learning disorder and cognitive assessment as the specific learning disorder can co-occur with other disorders that need appropriate methods to be involved during the clinical assessment. Specific learning disorder usually persists until adulthood and, therefore, reassessment is not requested unless specific reasons are present such as great improvement or deterioration is witnessed.

According to the APA (2013), specific learning disorder is diagnosed when the subsequent 4 criteria are met based on a clinical analysis of the individual's developmental, medical, family and educational history, as well as cumulative reports from school, and formal psychoeducational assessment.

First, difficulties in learning and utilizing academic skills should have persisted for at least 6 months despite interventions tailored for those difficulties. The impaired academic domains include impairments in reading, written expression, and/or mathematics. When diagnosing, the impaired domain (s) must be coded using the specifiers suggested by the DSM-5. For instance, if the impairment is in reading, it must be specified if deficits are in accuracy, fluency and/or comprehension. If the impairment is in written expression, it must be specified if deficits are in spelling, grammar and accurate punctuation and/or clarity or organization of written expressions. If the impairment is in mathematics, it must be specified if deficits are in number sense, memorization of mathematics facts, calculation and/or accurate math reasoning. Each domain must be coded individually in case more than one domain is impaired.

Second, the individualized comprehensive assessment that includes standardized tests of achievements confirms that the individual's academic performance of the impaired academic skills is significantly below what is expected for his/her chronological age. Also, the assessment should confirm that in adulthood the impaired academic skills interfere with the individual's occupational performance or daily life activities specifically when he/she is asked to perform a task that requires these skills.

Third, the learning difficulties must be present and evident when the individual first starts school although some individuals' learning difficulties may not be completely manifested until the learning demands surpass their limited capabilities.

Fourth, the learning difficulties are not due to intellectual disabilities, visual or auditory impairments, neurological disorders, other mental disorders, psychosocial disadvantages, lack of expertise in the language of academic instruction, or insufficient educational instruction.

Symptoms

According to the APA (2013), specific learning disorder is diagnosed when the above 4 diagnostic criteria are met and at least one of these symptoms is present:

- Failing to read single words accurately or reading single words slowly and hesitantly while exerting effort, guessing words, and/or having difficulty sounding out words.
- Difficulty in comprehending the meaning of what is read regardless of the individual's ability to read correctly. For example, individuals have difficulties understanding the sequence of events, relationships, inferences, or profound meanings within the text.

- Difficulties in spelling words accurately which encompass adding, omitting and/or substituting vowels or consonants.
- Difficulties in with written expression which include making multiple grammar or punctuation mistakes within sentences, poorly organizing the paragraphs, or including vague ideas in the written expression.
- Difficulties in comprehending number sense, number facts, or calculation. For example, the individual exhibits poor understanding of numbers, their magnitude, and relationships; the individual counts on fingers to add single-digit numbers instead of remembering the math facts; or the individual gets lost while performing arithmetic calculation and may change procedures abruptly.
- Difficulties with math reasoning which include severe difficulty in utilizing and applying arithmetic concepts, facts, or procedures to solve problems.

Severity

According to the APA (2013), the severity of the specific learning disorder must be specified. Specific learning disorder can range in severity from mild to moderate to severe. An individual is diagnosed with mild specific learning disorder if he/ she is able to use compensatory strategies or function normally when proper accommodations or services are provided although his/her learning difficulties are in one or two academic domains. An individual is diagnosed with moderate specific learning disorder if learning difficulties in one or more academic domains are markedly evident so that he/she is unable to develop proficiency without certain intensive and specific teaching at school. Some accommodations and support services may be required at school, at home, or at the place of work in order for this individual to accurately and efficiently complete

activities. An individual is diagnosed with severe specific learning disorder if several academic domains are impaired so that he/she is unable to learn without ongoing intensive, rigorous, individualized and specific teaching techniques at school.

Accommodations and support services provided at school, at home, or at the place of work do not guarantee the efficient completion of all activities.

Comorbidity

Comorbidity refers to other disorders that co-occur with specific learning disorder and that should be identified during assessment as they can make testing and diagnosis more difficult (APA, 2013). Moreover, these comorbidities should be addressed when providing the services for students with specific learning disorders. These co-occurring conditions include neurodevelopmental disorders such as Attention-Deficit/Hyperactivity Disorder (ADHD), autistic spectrum disorder and other mental disorders such as anxiety disorders and depressive disorders. Harwell (2001) identified ADHD, Conduct Disorder (CD) and Tourette syndrome (TS) as the 3 most common conditions that co-occur with specific learning disorders. ADHD is a neurodevelopmental disorder that begins in childhood and is characterized by persistent pattern of inattention and/or hyperactivity-impulsivity that intervenes with the individual's functioning or development. The disorder must be manifested in more than one setting (APA, 2013). Conduct Disorder usually co-occurs with ADHD and is characterized by lack of respect for others' rights, cruelty towards others and animals, continuous lying, setting fire intentionally and purposely breaking rules (Harwell, 2001). Tourette syndrome or Tourette's disorder as identified in DSM-5 is a neurodevelopmental disorder characterized by multiple involuntarily motor and/or vocal tics that can range from mild to severe.

Alternative Terms

Dyslexia

Dyslexia refers to problems with accurate or fluent word recognition, poor decoding, and poor spelling abilities (APA, 2013).

Dyscalculia

Dyscalculia refers to difficulties characterized in processing numerical information, learning arithmetic facts, and performing accurate or fluent calculations (APA, 2013).

Admission Procedure

The Learning Support Center aims at serving students diagnosed with specific learning disorder from K- 12. The diagnosis should be made prior to joining the center by a specialized professional, usually an educational evaluator, who provides the student's parents or legal guardians with a detailed comprehensive report. The staff at the center is not eligible to perform standardized assessments and evaluations that include diagnostic impressions; however, it is the center's staff responsibility to examine the case of each student before joining the center and check whether he/she can be appropriately served. Individuals diagnosed with neurodevelopmental disorders or mental disorders other than specific learning disorder will not be accepted at the center as the tutors are neither specialized nor trained to cater to their needs. However, individuals diagnosed with other disorders co-occurring with specific learning disorders will be accepted at the center after officially notifying the parents that the Center only addresses the specific learning disorder. Yet, considerations and specific adjustment will be applied when planning the Individualized Educational Program as these disorders might affect the students' progress rate in the academic subjects targeted. Moreover,

parents or legal guardians will be advised to follow-up with specialists outside the Center. The Center's staff is well-prepared to cooperate with the specialists and integrate any useful effective recommendations within the child's IEP. Specialists are advised to join the meeting held at the Center when developing the IEP.

Therefore, upon admission parents or legal guardians are expected to provide all the available documents that include formal reports, school reports, and any other medical reports. Parents or legal guardians are also asked to fill in a questionnaire about the child's developmental, medical, family, and educational history, and areas of strengths and weaknesses.

Information presented in these reports and the questionnaire will assist the center's team to initially check whether the services offered at the center will target the learning difficulties of the student, and, thus help him/her fill in the academic deficits. Moreover, this information will be used later on when developing the Individualized Education Program (IEP).

Note that the Center's staff members are aware that other alternative terms to "specific learning disorder" might be used in the diagnostic report. Second, staff members take into account co-morbid disorders and the characteristics of students with specific learning disorders that might interfere with their learning process. These co-morbid disorders and characteristics are usually highlighted in the diagnostic report, school reports, and/or parent's questionnaire.

Services Offered

The design of this Center was based on information elicited from the community's needs and literature review. Therefore, the Center offers services that

satisfy the community according to the results obtained from the participants' in this study and the available literature.

The services offered are divided into two main parts.

The first part incorporates the research-based intervention programs that were proved to help students.

Recipe for Reading: a research-based, comprehensive, multisensory, phonics-based program designed for at-risk and struggling readers based on Orthon-Gillingham principles and incorporates visual, auditory, and kinesthetic techniques. It is utilized to teach and reinforce phonics.

My First Letters: a program designed to teach decoding and spelling of the Arabic language to student with dyslexia. It applies the principles of Orton Gillingham while taking into consideration the unique features of the Arabic language.

Lindamood Phoneme Sequencing Therapy Program (LiPS): a research-based program designed to serve students with dyslexia to improve phonological awareness, thus, resulting in improved reading and decoding abilities.

Lindamood Visualizing and Verbalizing for Language Comprehension and Thinking (V/V): a research-based program that stimulates concept imagery. Individuals become able to image gestalts. This improves language comprehension and reasoning for critical thinking expressive language skills.

MindPlay Virtual Reading Coach (MVRC): an effective online reading program that improves reading skills quickly and efficiently. It enables students with diverse skills and instructional needs to read accurately and fluently.

On Cloud Nine Math Program: a research based program that stimulates the ability to image and verbalize the concepts underlying math processes. Concept and numerical imagery are integrated with language and applied to math computation and problem solving.

The second part of the offered services includes research-based strategies that assist in teaching the student reading, writing, and math. These strategies are determined when developing the IEP depending on the child's need and upon the approval and suggestion of all people involved in the IEP meeting. These strategies will be taught to the students and will help them complete their homework during the school year.

Therefore, upon joining the Center, an IEP should be developed that assign the number of intervention sessions that a student must receive. During the IEP meeting, it will be determined whether these sessions should be delivered one-on-one to the student or in small groups (3-4 students).

The IEP will be developed based on the child's comprehensive assessment examined by an IEP team that consists of the Center's director, the teachers, the parents, a school representative, and other specialists if present. The team should meet and develop the IEP before the child joins the center. The IEP team should make sure to allocate enough time during the school year for the student to complete his/her homework and study for tests. During the exam period at school, the intervention sessions may be skipped.

Therefore, the Center will ensure to allow students complete their homework after school and sustain their knowledge during the summer while providing the appropriate intervention.

Timeframe and Program Duration

The information elicited from the community and from the literature proved that the Center should operate during the school year and during the summer vacation.

During the school year, the Center will operate after school hours from 3:00 to 7:00 from Monday to Saturday. Students are advised to join the center 5 days/week to gain maximum benefit for 2 hours per day minimum. Students are not allowed to attend less than 3 days/week.

During summer, the Center will remain open during the summer vacation offering intensive intervention programs for students willing to improve their skills rapidly. A summer school program will be offered for one month starting mid July until mid August. The summer program offers only academic support: 3 hrs/ day for 3 day per week.

Teachers' Qualifications and Characteristics

The teachers at the center hold bachelor degrees and are well trained in the intervention programs by professional experts in the field. Teachers are well acquainted with research-based strategies that help student with specific learning disorder develop into independent learners. Teachers at the Center are warm, caring, empathetic, and cooperative.

Leaders' Qualifications and Characteristics

The leader of the Center holds an MA in education. She has been working in this field for 7 years. She received training in several intervention programs and attained the certificates to deliver these programs.

Aligned with the mission and vision, the leader continuously seeks the professional development of the staff , supports the parents and advise them in one-on-

one sessions, approaches the schools and invites them to the IEP meeting, evaluates the well-being and safety of the students and teachers, and more importantly ethically assigns the fees.

School and Parental Engagement

At least one member representing the school is expected to first attend the IEP meeting and get involved in developing the IEP. Moreover, the school staff members/teachers are expected to communicate to the Center their concerns. The communication method should be agreed upon with the parents or legal guardian. Also, schools are expected to cooperate and follow the Center's suggestions and recommendations.

On the other hand, the Center's staff is expected to communicate and accept recommendations by the school staff. The Center staff is expected to send progress reports developed at the Center.

The school staff is allowed to visit the Center and attend sessions any time they wish. They just need to notify the Center beforehand.

Parents or legal guardians are expected to participate in the IEP meeting. They are continuously updated about their child progress and they are allowed to attend sessions any time they wish.

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Appendices

Appendix A: Parental Consent Form 1

Dear parents,

My name is Rania Nicolas Daoud and I am a graduate student at the Lebanese American University (LAU) currently enrolled in the MA program. I am studying Education.

The study: The purpose of this study is to examine challenges for establishing a learning support center in rural areas for students with specific learning disorders.

Confidentiality: All the data and the results that will be obtained during this research will be remain anonymous and will not affect your child's school records. ***Your child's name will not be written on any document or be kept in any other records. All responses he/she provides for this study will remain confidential and only the researcher will have access to it. All data will be discarded once the study is done.***

I kindly ask that you read this form before agreeing to have your child participate in this study. Not sending the form back will grant me consent to collect data concerning my study. Your child will be asked to complete a questionnaire made of 18 statements. Attached are the questions for your information.

Thank you in advance for your cooperation; your child's participation is highly appreciated.

If you do **not** want your child to participate please sign this form and send it back with your child.

I do not want my child to complete a questionnaire.

Printed Name of Child

Signature of Parent(s) or Legal Guardian

Date

For further inquiries about the study, please do not hesitate to contact me at xxxxxxxx or via email: rania.daoud@lau.edu

If you have any questions about your child's rights as a participant in this study, or you want to talk to someone outside the research, please contact the:

IRB Office,

Lebanese American University

3rd Floor, Dorm A, Byblos Campus; Tel: 00 961 1 786456 ext. (2546)

Appendix B: Parental Consent Form 2

Dear parents,

My name is Rania Nicolas Daoud and I am a graduate student at the Lebanese American University (LAU) currently enrolled in the MA program. I am studying Education.

The study: The purpose of this study is to examine challenges for establishing a learning support center in rural areas for students with specific learning disorders.

Specific Procedures: The objective of this study is to collect information from a sample of the targeted population about the characteristics of a learning support center in your geographical area in order to examine the challenges for establishing such a center. The targeted population includes all the personnel involved in the learning process of the students the center will be serving. Specifically, this population includes the students diagnosed with specific learning disorders, their teachers at school, the head of the learning support department, the principal, and their parents.

If you, as a parent of a child with specific learning disorder, volunteer to participate in this study, you will be interviewed over the phone. You will be asked to answer 20 questions. Attached are the questions for your information. The interview can be conducted in English or in Arabic depending on your preference.

Therefore, you need to sign this consent form, fill out the contact form attached specifying if you would like to call the researcher or you would like the researcher to call you, then send it back to school with your child.

If you check “Researcher calls me.” in the contact form, I will call you and schedule the interview with you. If you check “I will contact the researcher.” in the contact form, do not hesitate to contact me at 0347632 or via email: rania.daoud@lau.edu any time during *the next week* in order to schedule a phone interview.

Duration of Participation: This may take around 15 minutes of your time.

Benefits to the Participant: The study is not directly beneficial to the participants; however, it will be of value for establishing a learning support center in your area. Note that you will receive no incentive or payment for your participation.

Risks to the Participant: Participation in this study involves no major risks whatsoever, be it physical or emotional. At no instance will you be asked to reveal any personal information. Please understand your participation is entirely on a voluntary basis and you have the right to withdraw your consent or discontinue participation at any time without penalty. If at any time and for any reason, you would prefer not to answer any questions, please feel free to tell me. If at any time you would like to stop participating, please tell me. We can take a break, stop and continue at a later date, or stop altogether.

Confidentiality: All the data and the results that will be obtained during this research will remain anonymous and will not affect your child's school records. *Neither your name nor your child's name will not be written on any document or be kept in any other records. All responses you provide for this study will remain confidential and only the researcher will have access to it. All data will be discarded once the study is done.*

Thank you in advance for your cooperation; your participation is highly appreciated.

If you want to participate please sign this form, fill out the contact form, and send it back with your child.

I want to be interviewed over the phone.

Printed Name of Parent

Signature of Parent(s) or Legal Guardian

Date

For further inquiries about the study, please do not hesitate to contact me at xxxxxxxx or via email: rania.daoud@lau.edu

*If you have any questions about your rights or your child's rights as a participant in this study, or you want to talk to someone outside the research, please contact the:
IRBOffice,
Lebanese American University
3rd Floor, Dorm A, Byblos Campus; Tel: 00 961 1 786456 ext. (2546)*

Contact Form

Please check one box if you want to participate in this study and provide the subsequent information if required:

Researcher calls me.

I will contact the researcher.

Please provide your *phone number(s)*:

Please provide the convenient day(s) and time to call you in order to schedule a phone interview:

Day(s) *Preferred:*

Please do not hesitate to contact me (call or send a text message) at xxxxxxxx or via email: rania.daoud@lau.edu any time during the next week in order to schedule a phone interview.

Thank you!

Appendix C: Company Request- School

To: International School

Address

Date

Object: Consent to collect data for an LAU research study entitled “Challenges For Establishing A Learning Support Center In Rural Areas For Students With Specific Learning Disorders.”

To whom it my concern,

I am writing to request permission for my student to be able to collect data from your teachers in all sections, middle and high school students diagnosed with specific learning disorders, parents of students diagnosed with specific learning disorders, heads of learning support departments and the principal. Rania Nicolas Daoud is a graduate student at the Lebanese American University (Department of Education) and would be visiting your facility only in order to complete a research project related to establishing a learning support center in a rural area for students with specific learning disorders.

The data collected, which is based on a 15 minute questionnaire for all the teachers in all sections (mainstream classes and learning support department) , a 20 min questionnaire for students diagnosed with specific learning disorders in middle and high school, a 15 minute phone interview with four to five parents of students diagnosed with specific learning disorders, a 20 minute interview with the head of the learning support department, and a 20 minute interview with the principal (attached to this letter) will be kept anonymous and will not be used for any other purpose.

Please do not hesitate to contact me should you need any additional information.

Sincerely yours,

Dr. Mona Nabhani, Principal Investigator

Associate Professor
School of Arts and Sciences
Department of Education
Tel. 01786456 ext.1266
P.O.Box: 36-Byblos, Lebanon

Acknowledgement

Name:

Signature:

Date:

Appendix D: Company Request- Learning Support Center

To: Learning Support Center
Address

Date

Object: Consent to collect data for an LAU research study entitled “Challenges For Establishing A Learning Support Center In Rural Areas For Students With Specific Learning Disorders.”

To whom it my concern,

I am writing to request permission for my student to be able to collect data from the founder of Apprentice and who is a special educator. Rania Nicolas Daoud is a graduate student at the Lebanese American University (Department of Education) and would be visiting your facility only in order to complete a research project related to establishing a learning support center in a rural area for students with specific learning disorders.

The data collected, 20 minute interview with the special educator at your center (attached to this letter) will be kept anonymous and will not be used for any other purpose.

Please do not hesitate to contact me should you need any additional information.

Sincerely yours,

Dr.Mona Nabhani, Principal Investigator

Associate Professor
School of Arts and Sciences
Department of Education
Tel. 01786456 ext.1266
P.O.Box: 36-Byblos, Lebanon

Acknowledgement

Name:

Signature:

Date:

Appendix E: Participant's Assent

Dear participant,

My name is Rania Nicolas Daoud. I am a graduate student at the Lebanese American University. I am asking you to participate in a study conducted by me. The objective of the study is to investigate the challenges for establishing a learning support center in rural areas for students with specific learning disorders.

I am asking you to complete a questionnaire that will take about 20 minutes. Your parents / legal guardians have already given permission for you to participate in this study, but you do not have to participate if you choose.

You may quit this study at any time by simply writing on the questionnaire "Stop" or "I do not wish to participate." Your participation in this study will not affect your school records and status in any way. The research intends to cause no physical or psychological harm or offense and to abide by all commonly acknowledged ethical codes. There are no known risks involved in this study and you will receive nothing for your participation. To protect your confidentiality, the questionnaire will not be shared with anyone unless required by law. All data and measurements obtained from this research study will be stored confidentially. Only researcher will have access to view any data collected during this research. These questionnaires will be kept by the researcher. Neither the organization nor your legal representative will know the answers you provide on the questionnaire.

You voluntarily agree to participate in this research project by filling the following questionnaire. You have the right to ask the researchers any question regarding this project. You also have the right to reject participation. You may withdraw from this research any time you wish.

If you have any question about this study, please talk to Rania Daoud.

If you have any questions about your rights as a participant in this study, or you want to talk to someone outside the research, please contact the: Institutional Review Board, Lebanese American University 3rd Floor, Dorm A, Byblos Campus, Tel: 00 961 1 786456 ext. (2546)

Agreement

I agree to participate in this research project and I have received a copy of this form.

Participant's Name (Please Print)

Date

Statement of person obtaining assent

I have explained to the above named individual the nature and purpose, benefits and possible risks associated with participation in this research. I have answered all questions that have been raised and I have provided the participant with a copy of this form.

Researcher

Date

Appendix F: Student's Questionnaire

Please fill the following information about yourself.

Grade: _____ **Age:** _____

Please circle your gender: **Male** - **Female**

Part I. About Yourself

1. How would describe your grades in the following subjects?

Please circle one answer per subject.

	Very Good	Good	Fair
English	1	2	3
Arabic	1	2	3
Math	1	2	3
Science	1	2	3

2. Which subjects do you usually have difficulties with?

Please check all that apply.

<input type="checkbox"/> English	<input type="checkbox"/> Arabic	<input type="checkbox"/> Math	<input type="checkbox"/> Science	<input type="checkbox"/> Social Studies	<input type="checkbox"/> Other: _____
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Do you have any other academic difficulties?

If you have any difficulties, please list the difficulties on the line below.

3. Who helps you in completing your homework?

Please check the box that applies.

<input type="checkbox"/> alone	<input type="checkbox"/> my mother	<input type="checkbox"/> my father	<input type="checkbox"/> my sister or my brother	<input type="checkbox"/> teacher at home	<input type="checkbox"/> after- school program	<input type="checkbox"/> Other: _____
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4. If someone is to help you out of school with your studies, what kind of help would you need? Please use the line below to provide your answer.

5. What do you usually do after school?

Please check all that apply.

<input type="checkbox"/> Attend sessions at speech therapy	<input type="checkbox"/> Participate in after-school academic program
<input type="checkbox"/> Attend sessions at special educator	<input type="checkbox"/> Do homework
<input type="checkbox"/> Other activities: _____	

6. What do you usually do in the summer vacation?

Please check all that apply.

<input type="checkbox"/> Attend sessions at speech therapy	<input type="checkbox"/> Participate in a summer school program
<input type="checkbox"/> Attend sessions at special educator	<input type="checkbox"/> Do summer assignments
<input type="checkbox"/> Other activities: _____	

Part II. About After-School Academic Programs

1. Answer the following questions if you have attended an after-school academic program this year or in past grades. If NOT move to number 8.

- a) **What grades have you attended the after-school academic program?**
Please use this line to provide your answer:

- b) **Why did you join an after-school academic program?**
Please use the line below to provide your answer.

- c) **If you stopped, why did you stop attending the after-school academic program?** Please use the line below to provide your answer.

- d) **If you stopped, are you willing to join an after-school academic program this year to receive help for the final exams?**
Please check the box that applies.

Yes No

2. Answer the following questions if you have **NOT attended an after-school academic program this year or in past grades.**

- a) **Why haven't you attended an after-school academic program?**
Please check all that apply:

<input type="checkbox"/> I can do my homework alone and I do not need any help.	<input type="checkbox"/> My parents cannot afford an after-school program.
<input type="checkbox"/> A teacher helps me at home.	<input type="checkbox"/> I attended but I did NOT like it.
<input type="checkbox"/> My friends do NOT attend.	<input type="checkbox"/> There isn't any after-school program I know of.
<input type="checkbox"/> No one can drop me and/or take me back home from the after-school program.	
<input type="checkbox"/> Other reasons:	

- b) **Are you willing to join an after-school academic program this year to receive help for the final exams?** Please check the box that applies.
 Yes No

3. In your opinion, how important are the following areas for an after-school academic program to be helpful for you?

Please circle one answer per question.

	Very Important	Important	Not Important	Don't Know
Teachers help students complete their homework at the after-school program.	1	2	3	DK
Teachers help students study for tests at the after-school program.	1	2	3	DK
Students receive support in English at the after-school program.	1	2	3	DK
Students receive support in Arabic at the after-school program.	1	2	3	DK
Students receive support in math at the after-school program.	1	2	3	DK
Teachers at the after-school program care about the students.	1	2	3	DK
Students feel comfortable talking to teachers at the after-school program.	1	2	3	DK

Other ideas that you think might make an after-school program better:
Please use the line below to provide your answer.

4. How often do you think a student should attend an after-school academic program to gain maximum benefit?

Please check one answer.

<input type="checkbox"/> Not at all	<input type="checkbox"/> 6 days/ week (5 days of the week + Saturday)	<input type="checkbox"/> 5 days/ week	<input type="checkbox"/> 3-4 days/ week	<input type="checkbox"/> 1-2 days/ week	<input type="checkbox"/> 1-2 days/ month	<input type="checkbox"/> Other: _____ _____
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5. How long do you think an after-school academic program should be?

Please check one answer.

<input type="checkbox"/> Not at all	<input type="checkbox"/> 1 hour /day	<input type="checkbox"/> 2 hours /day	<input type="checkbox"/> 3 hours /day	<input type="checkbox"/> Other: _____
--	---	--	--	---

6. How many students do you think should be grouped together in an after- school academic program?

Please check one answer.

<input type="checkbox"/> One-on-one (1 student with 1 teacher)	<input type="checkbox"/> Small groups (3-4 students with 1 teacher)
<input type="checkbox"/> Other: _____	

Part III. About Summer School Programs

1. Answer the following questions if you have attended a summer school program last summer or in past grades. If NOT move to number 14.

a) **What grades have you attended the summer school program?**

Please use this line to provide your answer: _____

b) **Why did you join a summer school program?**

Please use the line below to provide your answer.

c) **Are you willing to join a summer school to receive help for next summer?**

Please check the box that applies.

Yes No

2. Answer the following questions if you have NOT attended a summer school program this year or in past grades.

a) **Why haven't you attended a summer school program?**

Please check all that apply:

<input type="checkbox"/> My friends do NOT attend.	<input type="checkbox"/> My parents cannot afford a summer school program.
<input type="checkbox"/> I attended but I did NOT like it.	<input type="checkbox"/> There isn't any summer school program I know of.
<input type="checkbox"/> No one can drop me and/or take me back home from the summer school program.	
<input type="checkbox"/> Other reasons:	

b) Are you willing to join a summer school to receive help for next summer?

Please check the box that applies.

Yes No

3. In your opinion, how important are the following areas for a summer school program to be helpful for you?

Please circle one answer per question.

	Very Important	Important	Not Important	Don't Know
Teachers at the summer school program help students get prepared for the following year.	1	2	3	DK
Students receive support in English at the summer school program.	1	2	3	DK
Students receive support in Arabic at the summer school program.	1	2	3	DK
Students receive support in math at the summer school program.	1	2	3	DK
Teachers at the summer school program care about the students.	1	2	3	DK
Students feel comfortable talking to teachers at the summer school program.	1	2	3	DK

The summer school program has fun activities.	1	2	3	DK
---	---	---	---	----

Other ideas that you think might make a summer school program better

Please use the line below to provide your answer.

4. How often do you think a student should attend a summer school program to gain maximum benefit?

Please check one answer.

<input type="checkbox"/> Not at all	<input type="checkbox"/> 6 days/ week (5 days of the week + Saturday)	<input type="checkbox"/> 5 days/ week	<input type="checkbox"/> 3-4 days/ week	<input type="checkbox"/> 1-2 days/ week	<input type="checkbox"/> 1-2 days/ month	<input type="checkbox"/> Other: _____ _____
--	--	---	---	---	--	--

5. How long do you think a summer school program should be?

Please check one answer.

<input type="checkbox"/> Not at all	<input type="checkbox"/> 1 hour /day	<input type="checkbox"/> 2-3 hours /day	<input type="checkbox"/> 5 hours /day	<input type="checkbox"/> Other: _____
--	---	--	--	---

6. How many students do you think should be grouped together in a summer school program?

Please check one answer.

<input type="checkbox"/> One-on-one (1 student with 1 teacher)	<input type="checkbox"/> Group of 10-15 students with 1 teacher
---	--

<input type="checkbox"/> Small groups (3-4 students with 1 teacher)	<input type="checkbox"/> Other: _____
--	--

Please use the space below to provide any additional comments you would like to provide:

Thank you!

Appendix G: Teacher’s Questionnaire

Introduction

This is a research study and for this study you will be asked to answer few questions through this questionnaire. The questions aim to explore your opinions on having a student learning support center in rural areas that provides out-of-school academic support for students with specific learning disorders. At no instance will you be asked to reveal any personal information.

Please note that the questions do not intend to assess or evaluate anyone in anyway. Your answers will be used as a constructive feedback to establish such a learning support center in rural areas. Your individual privacy and confidentiality of the information you provide will be maintained in all published and written data analysis resulting from the study. The study is strictly anonymous. No one will know the answers you provide on the questionnaire.

Your participation should take approximately 15 minutes.

Please feel free to stop at any time if you have questions about the study.

Please understand your participation is entirely on a voluntary basis and you have the right to withdraw your consent or discontinue participation at any time without penalty. Participation in this study involves no major risks whatsoever, be it physical or emotional. The study is not directly beneficial to the participants; however, it will be of value for establishing such a learning support center in your community.

If at any time and for any reason, you would prefer not to answer any questions, please feel free to skip those questions. If at any time you would like to stop participating, simply write on the questionnaire “Stop” or “I do not wish to participate.” You will not be penalized for deciding to stop participation at any time.

I appreciate your kind cooperation and honesty.

.If you have questions, you may contact me:

Name	Phone number	Email address
Rania Daoud	xxxxxxx	rania.daoud@lau.edu

If you have any questions about your rights as a participant in this study, or you want to talk to someone outside the research, please contact the:

IRB Office,

Lebanese American University

3rd Floor, Dorm A, Byblos Campus

Tel: 00 961 1 786456 ext. (2546)

Please fill the following information about yourself.
Grade level (s) you teach: _____ **Subject(s) you teach:** _____
Sections
Please check all that apply:

<input type="checkbox"/> mainstream classes	<input type="checkbox"/> Self-contained classes in the learning support department	<input type="checkbox"/> shadow teacher to one student in mainstream class	<input type="checkbox"/> Other:
--	---	---	------------------------------------

1. What is the approximate number of students with specific learning disorders you have per class? Please list the approximate number on the line below.

2. How would you usually describe the grades of students with specific learning disorders in the subject you teach? Please check the box that applies.

<input type="checkbox"/> Excellent	<input type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Failing	<input type="checkbox"/> Other:
---------------------------------------	---------------------------------------	----------------------------------	----------------------------------	-------------------------------------	------------------------------------

3. What difficulties do students with specific learning disorders usually have?
Please list the difficulties if any.

4. Do students with specific learning disorders usually complete their homework at home? Please check the box that applies.

most of them some of them none of them

Please use this line to provide any additional comments: _____

5. If someone is to offer students with specific learning disorders out-of-school academic support, what kind of support would these students need in your opinion? Please use the line below to provide your answer.

6. Do you think there is a need for a center that offers an out-of-school academic support for students with specific learning disorders in your community?

Please check the box that applies.

Yes No

Please explain the reason(s) whether yes or no:

7. If this center is to be established, how important do you think the following criteria are to make such a center beneficial for students with specific learning disorders?

Please check one box per statement.

	Very Important	Important	Not Important	Don't Know
Students receive remedial support in English at the out-of-school academic support program.				
Students receive remedial support in Arabic at the out-of-school academic support program.				
Students receive remedial support in math at the out-of-school academic support program.				
Students feel comfortable talking to teachers and teachers care about them at the out-of-school academic support program.				
Teachers help students complete their homework at the after-school program .				
Teachers help students study for tests at the after-school program .				
Teachers at the summer school program help students get prepared for the following year .				
The summer school program has fun activities .				

Other suggestions that you think might make such a center beneficial for students with specific learning disorders. Please use the line below to provide any suggestions.

8. If this center is to be established, when do you think it should operate?

Please check the box that applies.

<input type="checkbox"/> after-school	<input type="checkbox"/> during the summer	<input type="checkbox"/> after-school and during the summer	<input type="checkbox"/> Other: _____
---------------------------------------	--	---	---------------------------------------

9. In your opinion, who are the students who should receive an out-of-school academic support? (Please use the line below to provide your answer. Specify if there is a difference between an after-school program and a summer program.)

10. How often do you think a student with specific learning disorder should attend an out-of-school academic program to gain maximum benefit?

Please fill in the table below:

	number of weeks/months	sessions per week	length of sessions
after-school program			
summer program			

11. In your opinion, how are students with specific learning disorders best grouped in an out-of-school academic support program?

Please fill in the table below:

	number of students per group (groups of 10 students/small groups of 2-3 students/one-on-one/etc.)	grouping criteria (group by age, group by ability, group by grade level, etc.)
after-school program		
summer program		

12. Do any of your students diagnosed with specific learning disorders receive an out-of-school academic support?

Please check the box that applies.

Yes No

a) **If yes, what kind of support do they usually receive?** Please use the line below to provide your answer.

How do you think students with specific learning disorders improved after receiving an out-of-school academic support? Please use the line below to provide your answer.

b) If no, do you know why they have not received an out-of-school academic support? Please use the line below to provide your answer.

13. How do parents react to your suggestions about their children? Please use the line below to provide your answer.

14. In your opinion, does the grade level of the student with specific learning disorder affect his/her gain in an out-of-school academic program?

Check the box that applies.

Yes No

If yes, in what grade levels do they benefit more? Please use the line below to provide your answer.

15. In your opinion, what kind of personal characteristics and qualifications should the teachers at a learning support center that offers an out-of-school academic program possess? Please use the line below to provide your answer.

16. Are you willing to cooperate with teachers at a learning support center?

Check the box that applies.

Yes No

Please use the line below to provide any additional comment(s):

17. In your opinion, what kind of personal characteristics and qualifications should the leader of a learning support center that offers an out-of-school academic program possess? Please use the line below to provide your answer.

Please use the space below to provide any additional comments or suggestions you would like to provide:

Thank You!

Appendix H: Parent's Interview-English

Please provide the following information about your child who has learning difficulties: his/her gender - his/her grade level - his/her age

- 1. At what age did you recognize that your child has learning difficulties?**
- 2. How did you know? Who diagnosed him/her?**
- 3. How would you describe your child's grades in the main subjects?**
English/ Arabic/ Math/ Science
- 4. Which subjects does your child usually have difficulties with? Any other difficulties?**
- 5. Does he/she usually complete his/her homework at home? Who helps your child in completing his/her homework?**
- 6. How does the school help your child academically? In case the school has provided academic help, has your child improved upon the provision of this help?**
- 7. If your child is to receive an out-of-school help, what kind of support or help would he/she need in your opinion?**
- 8. How do you think a center that offers an out-of-school academic support for students with learning difficulties would help your child?**
- 9. In your opinion, what should be the aim of such a center so that your child would gain maximum benefit? (Please specify if there is a difference between an after-school program and a summer program.)**
- 10. If this center is to be established in your area, how important do you think the following criteria are to make such a center beneficial for your child?**
Please rate: very important - important - not important
 - Students receive remedial support in English at the out-of-school academic support program.
 - Students receive remedial support in Arabic at the out-of-school academic support program.
 - Students receive remedial support in math at the out-of-school academic support program.
 - Students feel comfortable talking to teachers and teachers care about them at the out-of-school academic support program.
 - Teachers help students complete their homework at the after-school program.
 - Teachers help students study for tests at the after-school program.
 - Teachers at the summer school program help students get prepared for the following year.
 - The summer school program has fun activities.

Any other suggestions that you think might make such a center beneficial for your child?

- 11. If such a center is to be established in your area, when do you think it should operate?**

- 12. How often do you think a student should attend an out-of-school academic program to gain maximum benefit? (number of weeks/ sessions per week (preferable days) / length of session) (Please specify if there is a difference between an after-school program and a summer program.)**
- 13. In your opinion, how many students should be grouped together in an out-of-school academic support program? (groups of 10 students, small groups of 2-3 students, one-on-one) (Please specify if there is a difference between an after-school program and a summer program.)**
If in groups, please specify the grouping criteria: group by age, group by ability, group by grade level, etc.)
- 14. What does your child usually do after school and in the summer?**
- 15. Has your child received an out-of-school academic support at a learning center?**

If yes:	If no:
<p>a) In what grade level(s) has he/she received the out-of-school academic support? Please specify whether this support has been provided after school, during the summer, or both.</p> <p>b) Why has he/she received the out-of-school academic support?</p> <p>c) Did his/her grades improve in any subject? If yes, what subjects? English/ Arabic/ Math/ science/ others</p> <p>d) Other benefits (behavior/school attitude/motivation)?</p> <p>e) If he/she stopped, why did he/ she stop attending the out-of-school academic support program?</p> <p>f) If he/she stopped, are you willing to enroll your child in an out-of-school academic program this year? List things that might encourage or stop you from enrolling your child in an out-of-school academic program. (Please specify if there is a difference between an after-school program and a summer program.)</p>	<p>g) Why?</p> <p>h) Are you willing to enroll your child in an out-of-school academic program this year? List things that might encourage or stop you from enrolling your child in an out-of-school academic program.</p> <p>(Please specify if there is a difference between an after-school program and a summer program.)</p>

- 16. Has your child received any specialized intervention services out of school?**
- If yes,**
- What kind of services has he/she received? (Speech Therapy, Occupational Therapy, etc.)
 - For how long has he/she received these services? If he/she stopped receiving these services, why did he/she stop?
 - How has he/she benefited?
 - Do you know if any specific remedial programs have been used by the specialist? (Please list them)

- e) Do you know if any specific strategies have been used by the specialist?
(Please list them)

If no,

- f) Why?

- 17. In your opinion, what kind of personal characteristics and qualifications should the teachers of a learning support center that offers an out-of-school academic program possess? Are you willing to cooperate with them?**
- 18. In your opinion, what kind of personal characteristics and qualifications should the leader of a learning support center that offers an out-of-school academic program possess?**
- 19. How do you react to the school's suggestions about your child?**
- 20. How would you react to the center's suggestions about your child?**
Any additional comments or suggestions you would like to provide?

Appendix I: Parent's Interview-Arabic

مقابلة مع الأهل
معلومات حول ولدكم الذي يعاني صعوبات تعلمية:
الجنس/ الصف/ العمر

- 1) في أي عمر لاحظتم أن ولدكم يعاني صعوبات تعلمية ؟
- 2) كيف عرفتم؟ من قام بالتشخيص؟
- 3) ما هي العلامات التي يحصل عليها ولدكم في المواد الرئيسية ؟
- 4) ما المواد التي يواجه ولدكم فيها صعوبات ؟ هل يعاني صعوبات أخرى
- 5) هل يكمل فروضه عادة في البيت؟ من يساعده في إتمام فروضه؟
- 6) كيف تساعد المدرسة ولدكم أكاديمياً ؟ في حال كانت المدرسة قد قدمت أو تقدم المساعدة الأكاديمية لولدكم، هل لاحظتم تحسناً من خلال هذه المساعدة؟
- 7) إذا كان ينبغي أن يحصل ولدكم على دعم أكاديمي خارج المدرسة ، ما هو نوع الدعم الذي ينبغي أن يحصل عليه، برأيكم ؟
- 8) برأيكم كيف يمكن لمركز يقدم دعماً أكاديمياً خارج المدرسة للتلاميذ الذين يعانون صعوبات تعلمية أن يساعد ولدكم؟
- 9) برأيكم ، ماذا يجب أن يكون هدف برنامج الدعم الأكاديمي خارج المدرسة كي يوفر الفائدة القصوى لولدكم؟(من فضلكم حدّدوا الفرق ان كان هناك فرق بين برنامج بعد الظهر خلال العام الدراسي والمدرسة الصيفية)
- 10) في حال إنشاء هذا المركز في محيطكم، ما أهمية هذه المعايير ليكون هذا المركز مفيداً لولدكم ؟ مهم جداً- مهم- غير مهم

- يتلقى التلاميذ الدعم العلاجي في اللغة الإنكليزية في برنامج الدعم الأكاديمي خارج المدرسة.
- يتلقى التلاميذ الدعم العلاجي في اللغة العربية في برنامج الدعم الأكاديمي خارج المدرسة.
- يتلقى التلاميذ الدعم العلاجي في الرياضيات في برنامج الدعم الأكاديمي خارج المدرسة.
- يشعر التلاميذ بالراحة عندما يتحدثون إلى الأساتذة و الأساتذة يهتمون بهم في برنامج الدعم الأكاديمي خارج المدرسة.
- الأساتذة يساعدون التلاميذ في إتمام فروضهم في برنامج بعد الظهر خلال العام الدراسي.
- الأساتذة يساعدون التلاميذ في التحضير للامتحانات في برنامج بعد الظهر خلال العام الدراسي
- الأساتذة يهيئون التلاميذ للعام الدراسي المقبل في المدرسة الصيفية.
- المدرسة الصيفية تتضمن برامج ترفيهية.

- أي اقتراحات أخرى التي قد تجعل هكذا مركز ذو فائدة لولدكم؟
- 11) في حال إنشاء هذا المركز في محيطكم ، ما هو الوقت المناسب بالنسبة إليكم ؟ بعد المدرسة خلال أيام التدريس / في الصيف/ كلاهما (بعد المدرسة وفي الصيف)
 - 12) كم مرة برأيكم على التلميذ أن يحضر برنامج دعم أكاديمي خارج المدرسة كي يحصل على منفعة قصوى؟ (عدد الأسابيع/عدد الأيام أسبوعياً)(الأيام المفضلة)/مدة الحصة (من فضلكم حدّدوا الفرق ان كان هناك فرق بين برنامج بعد الظهر خلال العام الدراسي والمدرسة الصيفية).
 - 13) برأيكم كيف يجب تقسيم التلاميذ في برنامج الدعم الأكاديمي خارج المدرسة؟ (10 تلاميذ في مجموعة واحدة، مجموعات صغيرة من تلميذين أو 3 ، كل تلميذ على حدة)
- إذا كان ضمن مجموعات ، يرجى تحديد معيار المجموعة:بحسب العمر، بحسب القدرة، بحسب الصف، إلخ. (من فضلكم حدّدوا الفرق ان كان هناك فرق بين برنامج بعد الظهر خلال العام الدراسي والمدرسة الصيفية.)
- 14) ماذا يفعل عادة ولدكم بعد المدرسة و في الصيف ؟

15 هل يتلقَى أو تلقَى ولدكم دعماً أكاديمياً خارج المدرسة في مركز للتعليم؟

إذا كان الجواب كلا	إذا كان الجواب نعم
<p>أ- لماذا؟</p> <p>ب- هل أنتم مستعدون لتسجيل ولدكم في برنامج دعم أكاديمي خارج المدرسة هذه السنة؟</p> <p>حددوا الأمور التي قد تشجع أو توقف تسجيل ولدكم في برنامج دعم أكاديمي خارج المدرسة.</p> <p>(من فضلكم حدّدوا الفرق ان كان هناك فرق بين برنامج بعد الظّهر خلال العام الدراسي والمدرسة الصيفية.)</p>	<p>أ- في أي صفّ/صفوف يتلقَى أو تلقَى ولدكم دعماً أكاديمياً خارج المدرسة؟ يرجى التحديد إن كان يتلقَى أو تلقَى هذا الدّعم بعد المدرسة خلال العام الدراسي أو خلال الصيف.</p> <p>ب- لماذا يتلقَى أو تلقَى دعم أكاديمي خارج المدرسة؟</p> <p>ج- هل تحسّنت علامته في أيّ من المواد؟</p> <p>إذا كان الجواب نعم ، في أيّ موادّ؟ إنكليزي/عربي/رياضيات/علوم/موادّ أخرى</p> <p>د- أيّ فوائد أخرى (السلوك/تصرف المدرسة/الحنث)؟</p> <p>ه- إذا كان قد توقّف عن حضور برنامج الدّعم الأكاديمي، ما هو السّبب؟</p> <p>و- إذا كان قد توقّف عن حضور برنامج الدّعم الأكاديمي، هل أنتم مستعدّون لتسجيل ولدكم في برنامج دعم أكاديمي خارج المدرسة هذه السنة؟</p> <p>حدّدوا الأمور التي قد تشجع أو توقف تسجيل ولدكم في برنامج دعم أكاديمي خارج المدرسة.</p> <p>(من فضلكم حدّدوا الفرق ان كان هناك فرق بين برنامج بعد الظّهر خلال العام الدراسي والمدرسة الصيفية.)</p>

16 هل يتلقَى أو سبق أن تلقَى ولدكم دعماً علاجياً عند أخصائي خارج المدرسة؟

إذا كان الجواب نعم

أ- من أيّ نوع (علاج في النطق ، علاج مهني ، إلخ)؟

ب- لكم من الوقت تلقى هذه الخدمات؟ إذا كان قد توقّف ، ما هو السّبب؟

ج- هل استفاد وكيف؟

د- هل تعلمون إذا استعمل الأخصائي أيّ برنامج محدّد للعلاج؟ (يرجى ذكرها)

ه- هل تعلمون اذا استعمل الأخصائي طرق تعليمية متخصصة؟ (يرجى ذكرها)

إذا كان الجواب كلا

و- لماذا؟

17 برأيكم ما هي الصفات والكفاءات التي يجب أن يتحلّى بها أساتذة مركز تعليمي للدعم الأكاديمي خارج إطار المدرسة؟ هل أنتم مستعدّون للتعاون معهم؟

18 برأيكم ما هي الصفات والكفاءات التي يجب أن يتحلّى بها مدير مركز تعليمي للدعم الأكاديمي خارج إطار المدرسة؟

19 كيف تتعاملون مع إقتراحات المدرسة حول ولدكم؟

20 كيف يمكن أن تتعاملوا مع إقتراحات المركز حول ولدكم؟

هل من تعليقات أو إقتراحات أخرى تؤدّون إعطاها ؟

Appendix J: Head of the Special Education Department's Interview

- 1. What is the number of students with special needs at your school?**
- 2. How many students are diagnosed with specific learning disorders and who diagnosed them?**
- 3. Which subjects do students with specific learning disorders usually have difficulties with? Any other difficulties?**
- 4. Do students with specific learning disorders usually complete their homework at home? Who helps them in completing their homework?**
- 5. a) How do you cater to students with special needs at your school?
b) What remedial programs are used if any?
c) What strategies are used if any?**
- 6. How do you know that the academic support being provided at school for students with specific learning disorders is beneficial?**
- 7. If someone is to offer students with specific learning disorders out-of-school support, what kind of support would these students need in your opinion?**
- 8. How do you think a center that offers an out-of-school academic support for students with specific learning disorders would help these students?**
- 9. In your opinion, what should be the aim of such a center so that students with specific learning disorders would gain maximum benefit? (Please specify if there is a difference between an after-school program and a summer program.)**
- 10. In your opinion, who are the students who should receive an out-of-school academic support? (Please specify if there is a difference between an after-school program and a summer program.)**
- 11. If such a center is to be established in this rural area, when do you think it should operate? Why?**
- 12. How often do you think a student with specific learning disorder should attend an out-of-school academic program to gain maximum benefit? (number of weeks/ sessions per week (preferable days) / length of session) (Please specify if there is a difference between an after-school program and a summer program.)**
- 13. In your opinion, how many students with specific learning disorders should be grouped together in an out-of-school academic support program? (groups of 10 students, small groups of 2-3 students, one-on-one) (Please specify if there is a difference between an after-school program and a summer program.)
If in groups, please specify the grouping criteria: group by age, group by ability, group by grade level, etc.**

- 14. a) What is the approximate number of students diagnosed with specific learning disorders at your school who receive an out-of-school academic support?**
For those who have received an out-of-school academic support:
b) What kind of support do they usually receive? (after-school program, summer school, speech therapy sessions, sessions at special educators, etc.)
c) How do you think these students have improved after receiving an out-of-school academic support?
For those who have not received an out-of-school academic support:
d) Do you know why they have not received an out-of-school academic support?
- 15. In your opinion, does the grade level of the student affect his/her gain in an out-of-school academic program? If yes, in what grades do they benefit more?**
- 16. In your opinion, what kind of personal characteristics and qualifications should the teachers of a learning support center that offers an out-of-school academic program possess?**
- 17. In your opinion, what kind of personal characteristics and qualifications should the leader of a learning support center that offers an out-of-school academic program possess?**
- 18. How do parents react to your suggestions about their children?**
- 19. How would you react to the center's suggestions about the students? Are the teachers at your school willing to cooperate with teachers at the center? Any additional comments or suggestions you would like to provide?**

Appendix K: Principal's Interview

- 1) **What is the approximate number of students with special needs at your school?**
- 2) **How many students were diagnosed with specific learning disorders and who diagnosed them?**
- 3) **Which subjects do students with specific learning disorders usually have difficulties with? Any other difficulties?**
- 4) **a) How do you cater to students with special needs at your school?
b) What remedial programs are used if any?
c) What strategies are used if any?**
- 5) **How do you know that the academic support being provided at school for students with specific learning disorders is beneficial?**
- 6) **If someone is to offer students with specific learning disorders out-of-school support, what kind of support would these students need in your opinion?**
- 7) **How do you think a center that offers an out-of-school academic support for students with specific learning disorders would help these students?**
- 8) **In your opinion, what should be the aim of such a center so that students with specific learning disorders would gain maximum benefit? (Please specify if there is a difference between an after-school program and a summer program.)**
- 9) **In your opinion, who are the students who should receive an out-of-school academic support? (Please specify if there is a difference between an after-school program and a summer program.)**
- 10) **If such a center is to be established in this rural area, when do you think it should operate? Why?**
after school during the school year/ in the summer/both (after school and in the summer)
- 11) **How often do you think a student with specific learning disorder should attend an out-of-school academic program to gain maximum benefit? (number of weeks/ sessions per week (preferable days) / length of session)**
(Please specify if there is a difference between an after-school program and a summer program.)
- 12) **In your opinion, how many students with specific learning disorders should be grouped together in an out-of-school academic support program? (groups of 10 students, small groups of 2-3 students, one-on-one)** (Please specify if there is a difference between an after-school program and a summer program.)
If in groups, please specify the grouping criteria: group by age, group by ability, group by grade level, etc.
- 13) **a) What is the approximate number of students diagnosed with specific learning disorders at your school who have received an out-of-school academic support?**

For those who have received an out-of-school academic support:

b) What kind of support have they received? (after-school program, summer school, speech therapy sessions, sessions at special educators, etc.)

c) How do you think these students have improved after receiving an out-of-school academic support?

For those who have not received an out-of-school academic support:

d) Do you know why they have not received an out-of-school academic support?

- 14) In your opinion, does the grade level of the student affect his/her gain in an out-of-school academic program? If yes, in what grades do they benefit more?**
 - 15) In your opinion, what kind of personal characteristics and qualifications should the teachers of a learning support center that offers an out-of-school academic program possess?**
 - 16) In your opinion, what kind of personal characteristics and qualifications should the leader of a learning support center that offers an out-of-school academic program possess?**
 - 17) How do parents react to your suggestions about their children?**
 - 18) How would you react to the center's suggestions about the students? Are the teachers at your school willing to cooperate with teachers at the center?**
- Any additional comments or suggestions you would like to provide?**

Appendix L: Expert's Interview

- 1) **What is the average number of students diagnosed with specific learning disorders who receive academic support at your center per month?**
 - a) **Do all of these students live in Beirut?**
 - b) **Who are these students referred by?**
 - c) **Please specify the average number of students per month who receive services at your center and live in rural areas.**
- 2) **How does your center cater to students with specific learning disorders?**
 - a) **What kind of support is provided? (homework completion, remedial support, etc.)**
 - b) **Do teachers at the center develop an individualized educational program for each student or do they follow any other curriculum?**
 - c) **What remedial programs are used if any?**
 - d) **What strategies are used if any?**
 - e) **How do you measure the students' progress?**
- 3) **How does the number of students enrolled at your center vary between the school year and the summer vacation?**
- 4) **At what age are students usually diagnosed with specific learning disorders?**
- 5) **What difficulties do students with specific learning disorders usually face?**
- 6) **Do students with specific learning disorders usually seek the center's help for homework completion? (most of them/ some of them / none of them)**
- 7) **If someone is to offer students with specific learning disorders out-of-school support, what kind of support would these students need in your opinion?**
- 8) **How does your center cater to students with specific learning disorders living in rural areas?**
- 9) **How do you think a learning support center located in a rural area that offers an out-of-school academic support for students with specific learning disorders would help these students?**
- 10) **In your opinion, what should be the aim of such a center located in a rural area so that students with specific learning disorders would gain maximum benefit?**

(Please specify if there is a difference between an after-school program and a summer program.)
- 11) **In your opinion, who are the students who should receive an out-of-school academic support in rural areas? (Please specify if there is a difference between Beirut and rural areas, and if there is a difference between an after-school program and a summer program.)**
- 12) **If a learning support center is to be established in a rural area, when do you think it should operate? Why?**

(Please specify if there is a difference between Beirut and rural areas.)
- 13) **How often do you think a student with specific learning disorder should attend an out-of-school academic program to gain maximum benefit? (number of weeks/ sessions per week (preferable days) / length of session)**

(Please specify if there is a difference between Beirut and rural areas, and if there is a difference between an after-school program and a summer program.)

- 14) In your opinion, how many students with specific learning disorders should be grouped together in an out-of-school academic support program? (groups of 10 students, small groups of 2-3 students, one-on-one)**
(Please specify if there is a difference between Beirut and rural areas and if there is a difference between an after-school program and a summer program)
If in groups, please specify the grouping criteria: group by age, group by ability, group by grade level, etc.
- 15) In your opinion, does the grade level of the student affect his/her gain in an out-of-school academic program? In what grades do they benefit more?**
- 16) In your opinion, what kind of personal characteristics and qualifications should the teachers of a learning support center that offers an out-of-school academic program possess?**
- 17) Is it difficult to find the right candidates in Beirut? If yes, what do they lack?**
- 18) Do you think it would be difficult to find the right candidates in rural areas? Do you receive any applications from qualified candidates living in rural areas?**
- 19) In your opinion, what kind of personal characteristics and qualifications should the leader of a learning support center that offers an out-of-school academic program possess?**
- 20) How do parents react to the center's suggestions about their children?**
- 21) How do schools react to the center's suggestions about the students? Are the teachers at schools usually cooperative with teachers at the center?**
- 22) How do you maintain the professional development of the center's staff?**
- 23) How do you evaluate the center's overall performance?**
- 24) What procedures should be done to legalize such a center**
Any additional comments or suggestions you would like to provide

Appendix M: Teachers' Descriptions of Students' with SLD Grades

Table A1 :Teachers' Descriptions of Students' with SLD Grades Across Subjects

Teacher	Subject	Grade level (s) he/she teaches	Section	Grades Description
Teacher 1	English	1	Mainstream	Failing
Teacher 2	English	2	Mainstream	Good-Fair- Failing
Teacher 3	English	4 and 5	Mainstream	Good- Fair - failing
Teacher 4	English	4,5,8,and 9	Mainstream + self- contained classes in the learning support department	Good- Fair – failing
Teacher 5	English	7 and 9	Mainstream	Fair
Teacher 6	Arabic and French	3	Mainstream	Good- Fair
Teacher 7	Math	4 and 5	Mainstream	Fair
Teacher 8	Math	7	Mainstream	Failing
Teacher 9	Science	3,4,5	Mainstream	Fair
Teacher 10	Science	6,7,8,9	Mainstream + self- contained classes in the learning support department	Fair
Teacher 11	All subjects	6	Shadow teacher	Fair

Appendix N: Participants' Questions Regarding the Center's Expectations

Table A1: Participants' Questions Regarding the Center's Expectations

Participants Asked Questions	Students	Teachers	Parents	Head of S.E.D.	Principal	Expert
Stating the kind of support/help students with SLDs need out of school	√	√	√	√	√	√
Stating how such a center would help students with SLDs			√	√	√	√
Stating the expected aim of such a center			√	√	√	√
Stating the importance/ need of establishing such a center for students with SLDs		√				
Stating the students who should be served at such a center		√		√	√	√
Rating the importance of certain features exhibited by and offered at such a center	√	√	√			
Stating the appropriate operational time of such a center to be effective		√	√	√	√	√
Stating the duration of the program at such a center		√	√	√	√	√
Stating the frequency and duration of sessions and the students' grouping method (number of students per group) at such a center	√	√	√	√	√	√
Stating the grouping criteria of students at such a center		√	√	√	√	√
Stating the personal characteristics and qualifications of the center's staff (teachers and leader)		√	√	√	√	√