



# Teaching English as a Foreign Language to Students with Learning Disabilities at the Intermediate and Advanced Levels: A Multiple-Strategies Approach

Abdel Salam A. El-Koumy

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# **Teaching English as a Foreign Language to Students with Learning Disabilities at the Intermediate and Advanced Levels: A Multiple-Strategies Approach**

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# Overview

The idea of this book arose out of an awareness that students with language learning disabilities are completely ignored in the Egyptian school system and there are no special programs that cater to these students. They are placed in normal schools that are not prepared to deal with their unique difficulties. This book, therefore, is an attempt to provide teachers with multiple-strategies models for teaching English language skills to these students at the intermediate level and beyond. More specifically, this book will help pre-and in-service teachers to:

- identify effective strategies for learning and using language skills,
- use multiple-strategies models for teaching language skills,
- interweave strategies for language learning and language use into regular language activities, and finally
- improve both the processes and products of language learning of students with learning disabilities.

Thus, the target audience of this book includes pre-and in-service regular teachers, special education teachers, school psychologists, counselors, and administrators.

The Author

# **Chapter One**

## **Learning Disabilities**

### **1.0. Introduction**

**This introductory chapter presents the definition of learning disabilities in different countries. It also presents an overview of the most effective intervention for students with learning disabilities.**

### **1.1. What are learning disabilities?**

**The term learning disabilities is defined in different ways in different countries. In Australia, the term refers to a small subgroup within the general area of learning difficulties. This subgroup involves students who have difficulties in specific areas as a result of impairment in one or more of the cognitive processes related to learning. From the Australian perspective, these specific areas of learning difficulties (known as learning disabilities) share the following characteristics (Commonwealth of Australia 1992, 2005):**

- are considered to be intrinsic to the individual,**
- can cause a person to learn differently,**
- are not linked to intellectual impairment (except incidentally),**
- may coincidentally exist with problems in self-regulatory behaviors, social perception and social interaction,**
- are life-long, and**



- **result in difficulty accessing the curriculum unless educational adjustments appropriate to individual need are provided to prevent failure.**

**In the American context a variety of definitions of the term learning disabilities have been proposed. The American National Joint Committee on Learning Disabilities (1994), for example, defines this term in the following way:**

**Learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the life span. (p. 65)**

**Also in the USA, the Individuals with Disabilities Education Act (IDEA) (2004, cited in Wright, 2005, p. 9) defines the term specific learning disability as “a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations”.**

**In Canada, the Learning Disabilities Association of Ontario (2001) defines the term learning disabilities as follows:**

**Learning Disabilities refers to a variety of disorders that affect the acquisition, retention, understanding, organization or use of verbal and/or non-verbal information. These disorders result from impairments in one or more psychological processes related to learning, in combination with otherwise average abilities essential for thinking and reasoning. Learning disabilities are specific not global impairments and as such are distinct from intellectual disabilities. (p. 1)**

Similarly, the Learning Disabilities Association of Alberta (2010) defines the term learning disabilities as “a number of disorders which may affect the acquisition, organization, retention, understanding or use of verbal or nonverbal information” (p. 3).

In the UK the term learning disabilities is used differently to refer to what is known in Australia and many other countries as intellectual disabilities which are out of the scope of this book; whereas the term specific learning difficulties (SpLDs) is used to refer to difficulties with certain aspects of learning. These SpLDs include dyslexia, dyspraxia, dyscalculia and dysgraphia (Department of Health, 2010).

Many neuropsychologists and psychiatrist associations (e. g., Cortiella and Horowitz, 2014; Learning Disabilities Association of Alberta, 2010) agree that students with learning disabilities have average or above average cognitive ability, but they have neurologically-based disorders in one or more of the processes related to information processing such as perceiving, storing, remembering, retrieving, and communicating information. These disorders manifest themselves in significant difficulties with listening, speaking, reading, writing, reasoning, or mathematical abilities. Specifically, they interfere with the acquisition and use of one or more of the following language skills: (1) oral communication (e.g., listening, speaking); (2) reading (e.g., decoding, comprehension); and (3) written language (e.g., spelling, written expression) (National Dissemination Center for Children with Disabilities, 2004). More specifically, research (e.g., Chalk, Hagan-Burke, and Burke, 2005; Gerber, 1998; Graham, Schwartz, and MacArthur, 1993) has shown that students with learning disabilities often experience difficulty in the following areas:

- Comprehending what is read,
- Understanding what is said,
- Oral expression,

- **Written expression,**
- **Generating ideas,**
- **Organizing ideas logically,**
- **Writing in stages,**
- **Understanding inferences, jokes or sarcasm,**
- **Planning, and decision-making (executive functions),**
- **Repairing breakdowns in interaction,**
- **Monitoring and self-evaluating performance,**
- **Identifying and recognizing strengths and weaknesses,**
- **Communicating thoughts and ideas,**
- **Expressing opinions, feelings, and ideas adequately on common topics,**
- **Requesting and giving clarification,**
- **Repairing breakdowns while interacting with others.**

However, as Gerber (1998) states, “Learning disabilities are not a unitary construct. An individual can have one specific problem or constellation of problems. Moreover, learning disabilities do not manifest themselves in individuals in exactly the same way. Some learning disabilities can be mild, while others can be quite severe” (p. 9). Furthermore, the severity of learning disabilities can influence many personal aspects including: (a) self-esteem, (b) personal relations, (c) social interactions, and (d) employment, as well as (e) educational pursuits (Comstock and Kamara, 2002).

**Some psychotherapists, learning disabilities associations, and educators (e.g., Commonwealth of Australia, 1992, 2005; Gerber and Reiff, 1994; Gerber, Schnieders, Paradise, Reiff, Ginsberg, and Popp, 1990; Wilson and Lesaux, 2001) believe that learning disabilities are long-lasting and that interventions only prevent complications and help students to cope with their disabilities. In contrast, some other psychotherapists, learning disabilities associations, and educators (e. g., Graham and Harris, 2005; Learning Disabilities Association of Alberta, 2010; Mishna, 1998) believe that students with learning disabilities have the potential to achieve at age-appropriate levels once provided with programs that incorporate appropriate support and evidence-based instruction because these disabilities have nothing to do with a student's intelligence. Mishna (1998), for example, believes that students with learning disabilities can be very successful when they are provided with strategies that support their learning. The Learning Disabilities Association of Canada (1999) goes so far as to say:**

**Adults with learning disabilities have average, above-average, or even exceptional intelligence. They may be highly artistic, musical, or gifted in a specific academic area. Their general intellectual functioning is not impaired and they are able to reason and make judgments at least within the average range. In other words, people with learning disabilities are not slow learners. They just learn in a different way. They learn inefficiently, due to inefficiencies in the functioning of the brain. (p. 13)**

**The Learning Disabilities Association of Ontario (2001) also believes that persons with learning disabilities can overcome their learning disabilities and achieve academic success if they are provided with specialized interventions, appropriate to their individual strengths and needs. In the same vein, Nichols (2002) states that all students with learning disabilities can acquire literacy skills, provided that they are taught appropriately. She**

**maintains that these students “are able to participate in secondary education successfully and graduate, provided that they are taught the way that they learn best and that they are guaranteed access to the accommodations which they have a right to have and without which they may turn out to be unsuccessful” (p. 5). In addition, the Learning Disabilities Association of America believes that every person with learning disabilities can succeed in school, at work, in relationships, and within the community when provided the right supports and the right opportunities.**

**Over and above, the National Dissemination Center for Children with Disabilities (2004) believes that children with learning disabilities are not dumb or lazy and that they can learn successfully with the right help. It states, “Children with learning disabilities are not “dumb” or “lazy.” In fact, they usually have average or above average intelligence. Their brains just process information differently.... With the right help, children with LD can and do learn successfully” (p. 2).**

**Moreover, the Learning Disabilities Association of Alberta (2010) believes that with the right support and intervention, people with learning disabilities can succeed in school, work, and life. This association puts it simply in the following way:**

**Simply put, a person with a learning disability may be just as intelligent, or even more intelligent, than most people. However, certain skills or subjects pose uncommon challenges. The important thing to remember is that learning disabilities can cause people to learn differently from others. (p. 3)**

**To date, research findings indicate that students classified as having language learning disabilities could: (a) acquire FL skills, (b) achieve at levels that match their peers in regular FL classes, and (c) satisfy university FL requirements by participation in the modified FL classes with proper instruction and accommodation (Downey and Snyder, 2000; Sparks, Philips, and Javorsky, 2003).**

**To sum up, although there are various definitions for learning disabilities, most of these definitions excluding the UK definition, share these key elements: (1) Learning disabilities are a group of neurological disorders in the information processes and these disorders manifest themselves in significant difficulties with listening, speaking, reading, writing, or mathematics; therefore, the problems of students with learning disabilities lie with the processing of information, not with intelligence; (2) Learning disabilities are specific, not global impairments and as such are distinct from intellectual disabilities; (3) Although learning disabilities are not caused by environmental factors (e.g., insufficient/inappropriate instruction), such environmental factors may contribute significantly to the negative impact of a learning disability on a student's life and make it worse; (4) Students with learning disabilities have average to above average intelligence and demonstrate at least average abilities essential for thinking and reasoning; (5) With appropriate educational support, students with learning disabilities can attain average or above average achievement.**

## **1.2. What works for students with learning disabilities at the intermediate and advanced levels?**

**There is no set recipe for teaching English as a foreign language to students with learning disabilities at the intermediate and advanced levels. However, research indicates that these students do well with decoding but have difficulties with language comprehension and production because they lack effective cognitive and metacognitive strategies (Schoenbach, Greenleaf, Cziko, and Hurwitz, 1999). In other words, these students often possess a good collection of vocabulary and grammatical structures, but they cannot comprehend oral or written language,**

or express themselves orally and in writing because they lack strategies for planning, setting priorities, monitoring, predicting and self-assessment. Therefore, they more than their peers without learning disabilities are in need of interventions that explicitly teach strategies for language learning and language use in conjunction with language skills. In support of this type of intervention, Price and Cole (2009) suggest that “[e]ffective instruction for students with learning disabilities is explicit and intensive and combines direct instruction with strategy instruction.... and responsive to the specific information processing and learning needs of students” (p. 31). Likewise, Fowler and Hunt (2004) assert that “[i]ndividuals with learning disabilities have skills that make it possible for them to learn how to use strategies and accommodations to help them pursue their goals” (p. 30). In the same vein, Sturomski (1997) states that due to the information processing difficulties that students with learning disabilities often experience with learning, they more than their peers without learning disabilities are in need of effective learning strategies instruction. He states:

Because of the nature of their learning difficulties, students with learning disabilities need to become strategic learners, not just haphazardly using whatever learning strategies or techniques they have developed on their own, but becoming consciously aware of what strategies might be useful in a given learning situation and capable of using those strategies effectively. (p. 4)

In addition, the National Information Center for Children and Youth with Disabilities (1997) expresses the need for teaching students with learning disabilities to learn how to learn in the following way:

**Notwithstanding the difficulties that students with learning disabilities often experience with learning, they have the same need as their peers without disabilities to acquire the knowledge, skills, and strategies both academic and nonacademic that are necessary for functioning independently on a day-to-day basis in our society. Perhaps one of the most important skills they need to learn is how to learn. Knowing that certain techniques and strategies can be used to assist learning, knowing which techniques are useful in which kinds of learning situations, and knowing how to use the techniques are powerful tools that can enable students to become strategic, effective, and life long learners. (p. 3)**

**In support of strategy instruction as an intervention for students with learning disabilities, many research studies in the field of learning disabilities recommend this type of intervention. In their review of research on learning disabilities and adult literacy, Corley and Taymans (2002) conclude that research on instructional variables positively associated with successful learning for students with learning disabilities strongly support combining direct instruction with strategy instruction. Many meta-analytic reviews (e.g., Hughes, 1998; Swanson, 1999) also suggest that a combination of both direct instruction and strategy instruction for students with learning disabilities produce a larger effect than either instructional method by itself.**

**It is thus clear that successful interventions for students who have learning disabilities at the intermediate and advanced levels emphasize helping students learn how to learn to enable them to change their ineffective learning processes and to learn independently throughout their entire lives. The focus of this book, therefore, will be on helping students with learning disabilities become more efficient and effective learners by equipping them with a repertoire of strategies for language learning and language performance.**



## **Chapter Two**

# **Teaching Learning Strategies to Students with Learning Disabilities**

### **2.0. Introduction**

**Students with learning disabilities are not aware of how their minds work and fail to use strategies that represent the dynamic processes underlying effective learning and academic performance. In support of this, many neuropsychologists and psychiatrist associations (e. g., Allsopp, Minskoff, and Bolt, 2005; Cortiella and Horowitz, 2014; Learning Disabilities Association of Alberta, 2010) agree that individuals with learning disabilities have neurologically-based processing disorders which means that their brains process information differently than most people. These information processing disorders manifest themselves in students' failure to independently apply effective learning processes and to monitor their own learning. More specifically, these information processing disorders manifest themselves in students' failure to: (a) apply learning strategies, (b) orchestrate among various strategies, and (c) change strategies when they don't work, or make adaptations to them when necessary. These failures in turn interfere with acquisition and use of one or more of the following language skills: (1) oral communication, (2) reading comprehension, and (3) written expression (e.g., Fowler, 2003; Learning Disabilities Association of Canada, 2005; National Dissemination Center for Children with Disabilities, 2004; Reid, Lienemann, and Hagaman, 2013; Torgesen and Kail, 1980; Wong, 2000). The information processing disorders can also lead to frustration, disappointment, low self-esteem and withdrawal from school (Fiedorowicz, Benezra, MacDonald, McElgunn, Wilson, and Kaplan, 2001).**

**In simple words, having a learning disability means that the brain does not process information normally. This, of course, requires modeling effective cognitive processes through learning strategies instruction to help students with learning disabilities change their ineffective learning processes and employ effective ones in a reflective, purposeful way. In support of this solution, Neil Sturomski (1997), the former director of the National Adult Literacy and Learning Disabilities Center, who has more than thirty-five years of experience related to individuals with learning disabilities and other special learning needs, states that students with learning disabilities can learn strategies, which can in turn improve their language skills. He further explains:**

**Because of the nature of their learning difficulties, students with learning disabilities need to become *strategic* learners, not just haphazardly using whatever learning strategies or techniques they have developed on their own, but becoming consciously aware of what strategies might be useful in a given learning situation and capable of using those strategies effectively. Teachers can be enormously helpful in this regard. They can introduce students to specific strategies and demonstrate when and how the strategies are used. Students can then see how a person thinks or what a person does when using the strategies. Teachers can provide opportunities for students to discuss, reflect upon, and practice the strategies with classroom materials and authentic tasks. By giving feedback, teachers help students refine their use of strategies and learn to monitor their own usage. Teachers may then gradually fade reminders and guidance so that students begin to assume responsibility for strategic learning. (p. 3)**

**Mothus and Lapadat (2006) also refer to learning strategies instruction as a solution to the processing difficulties experienced by students with learning disabilities in the following way:**

**The Strategies Intervention Model (SIM), developed by researchers at the University of Kansas, is based on the theory that students with LD [Learning Disabilities] have information processing difficulties, are strategy deficient, and are inactive learners. That is, they do not create or use appropriate cognitive and metacognitive strategies spontaneously to process information, to cope with problems they encounter, or to learn new material (Alley & Deshler, 1979; Bender, 1995; Clark, 1993; Deshler, Schumaker, Lenz, & Ellis, 1984; Ellis, Deshler, & Schumaker, 1989; Shaw et al., 1995; Palincsar & Brown, 1987; Torgesen, 1988a, 1988b). (p. 14)**

**To help students with language learning disabilities overcome their own learning difficulties, instruction should take as its aim the improvement of the underlying processes and strategies these students depend upon to learn language skills as these skills are rooted in complex processes. In support of learning strategies instruction as an intervention for improving language skills, many studies have shown that: (a) learners' awareness of their own learning processes plays a significant role in improving language performance (e.g., Baker and Brown, 1984; Bereiter and Bird, 1985); (b) greater strategy use is related to better language learning and good language learners apply multiple strategies more frequently and more effectively than poor language learners (e.g., Kaufman, Randlett, and Price, 1985; Lau, 2006; Paris, Lipson, and Wixson, 1983); and (c) struggling language learners have difficulty in using learning strategies (e.g., Brown and Palincsar, 1982; Chan and Lan, 2003). Therefore, the present chapter focuses on learning strategies in general and language learning strategies in particular to help teachers become more aware of the various strategies that they can use to enable students to learn independently and effectively. More specifically, this chapter deals with the definition of learning strategies and discusses the benefits and types of these strategies. It also addresses the most-widely used models of learning strategies instruction. Then, it discusses the methods of**

identifying and assessing these strategies. Finally, it reviews research into effective/ineffective learning strategies as well as research on teaching learning strategies to students with learning disabilities.

## **2.1. Definition of learning strategies**

Definitions of learning strategies are many. According to Chamot (1987), "Learning strategies are techniques, approaches, or deliberate actions that students take in order to facilitate the learning and recall of both linguistic and content area information" (p. 71). For Wenden and Rubin (1987) learning strategies are "any sets of operations, steps, plans, routines used by the learner to facilitate the obtaining, storage, and use of information" (p. 19). Along the same line, Schmeck (1988) defined the term learning strategy in relation to learning tactics in this way:

The term strategy was originally a military term that referred to procedures for implementing the plan of a large scale military operation. The more specific steps in implementation of the plan were called tactics. More generally the term strategy has come to refer to the implementation of a set of procedures (tactics) for accomplishing something. Thus a learning strategy is a sequence of procedures for accomplishing learning and the specific procedures within the sequence are called learning tactics. (p. 5)

In a similar way, learning strategies were defined by O'Malley and Chamot (1990) as "special thoughts or behaviors that individuals use to comprehend, learn, or retain new information" (p. 1). In Wenden's (1991a) view, "Learning strategies are mental steps or operations that learners use to learn a new language and to regulate their efforts to do so" (p. 18). In addition, Cohen (1998) defined language learning strategies as conscious behaviors used to

learn the language. In the *Concise Encyclopedia of Educational Linguistics*, Oxford (1999) defined learning strategies for second or foreign language as “specific actions, behaviors, steps, or techniques that students use to improve their own progress in developing skills in a second or foreign language” (p. 518). In the same vein, Weisnstein, Husman, and Dierking (2000) defined learning strategies as “any thoughts, behaviors, beliefs, or emotions that facilitate the acquisition, understanding, or later transfer of new knowledge and skills” (p. 727). Furthermore, Anderson (2005) defined learning strategies as “the conscious actions that learners take to improve their language learning” (p. 757). By the same token, Chamot (2005) defined learning strategies as “procedures that facilitate a learning task” (p. 112).

As indicated above, although language learning scholars define learning strategies differently, there are a number of basic characteristics accepted by all of them. Oxford (1990, p. 9) lists these basic characteristics as follows:

- They allow learners to become more self-directed;
- They are specific actions taken by the learner;
- They involve many aspects of the learner, not just the cognitive;
- They support learning both directly and indirectly;
- They are not always observable;
- They are often conscious;
- They can be taught;
- They are flexible;
- They are influenced by a variety of factors.

## **4.2. Benefits of learning strategies**

Learning strategies are a means of enhancing successful learning. As Oxford (1990) states, learning strategies “make learning easier,

faster, more enjoyable, more self-directed, more effective, and more transferable to new situations” (p. 8). Rubin (1996) also believes that strategy instruction is a means of enhancing learners' procedural knowledge, which leads to more successful learning. She states:

Strategy instruction is one way to work towards enhancing your procedural knowledge. Since many adults are "language phobic" or inexperienced with language learning, they need to gain more procedural knowledge to deflect negative affective influences and to begin to experience some success. (p. 151)

Specifically, the use of strategies for language learning is a fundamental requirement for successful learning. They contribute to the development of comprehension and production of the target language. In this respect, Oxford (1990) states that learning strategies are "especially important for language learning because they are tools for active, self-directed movement, which is essential for developing communicative competence" (p. 1). According to Long and Crookes (1992), learning strategies instruction "clearly improves rate of learning" and "probably improves the ultimate level of SL (second language) attainment" (p. 42). In the *Concise Encyclopedia of Educational Linguistics* (1999), Oxford adds that "language learning strategies can facilitate the internalization, storage, retrieval, or use of the new language" (p. 518). In support of this, researchers found that skilled language learners are masters of learning strategies (Bereiter and Scardamalia, 1987), and that a positive correlation exists between strategy use and second language proficiency (Oxford, Cho, Leung, and Kim, 2004). The literature on metacognition also suggests that the use of metacognitive strategies positively influences learners' academic performance (Pintrich, 1994, 2002; Pintrich and Schunk, 1996).

**Learning strategies are also seen as a means of enhancing self-efficacy, motivation and self-confidence of learners. In this respect, Schunk (1989) argues that strategy instruction can positively influence students' self-efficacy, which can in turn lower their level of anxiety. In the same vein, Chamot, Barnhardt, El-Dinary, and Robbins (1996) argue that access to appropriate strategies leads to students gaining a higher expectation of learning success, which is central to motivation. That is, strategic learners perceive themselves as more able to succeed academically than students who do not know how to use strategies effectively, which in turn increases their motivation. Likewise, Oxford, Crookall, Cohen, Lavine, Nyikos, and Sutter (1990) believe that "strategy training can enhance both the process of language learning (the strategies or behaviors learners use and the affective elements involved) and the product of language learning (changes in students' language performance)" (p. 210).**

**Besides, learning strategies instruction is an important factor for developing independent learning as it helps learners discover what particular strategy works for them in a particular situation and develops their control over their own learning. The more students become aware of their own learning strategies, the greater the control they develop over their own learning. In this regard, Wenden (1986) says, "[T]o be self-sufficient, learners must know how to learn" (p. 315). Along the same line, Cohen (1998) argues that strategy instruction helps learners explore ways in which they can learn the language more effectively. He further emphasizes the significant role that strategy instruction plays in developing learners' independence in the following way:**

**The strategy training movement is predicated on the assumption that if learners are conscious about and become responsible for the selection, use, and evaluation of their learning strategies, they will become more successful language learners by [...] taking more responsibility for their own language learning, and enhancing their use of the target language out of class. In**

**other words, the ultimate goal of strategy training is to empower students by allowing them to take control of the language learning process. (p. 70)**

**Research has also shown that self-regulated learners engage in the use of both cognitive and metacognitive strategies for learning and that students who use effective strategies are better able to work outside the classroom, where teacher direction and teacher input are not present, because learning strategies enable them to become more independent, lifelong learners (Pintrich and De Groot, 1990).**

**Moreover, learning strategies enable students to stretch their own learning styles. In this respect. Oxford (2003) states that teachers can actively help students “stretch” their learning styles by trying out some strategies that are outside of their primary style preferences. She adds that this can happen through strategy instruction.**

**Furthermore, learning strategies instruction holds a significant benefit to students with learning disabilities, because these students often lack effective learning strategies. In this regard, Beckman (2002) points out that when students with learning disabilities become strategic learners, they become productive lifelong learners, and as a result of strategy use, they trust their own minds, know that there's more than one right way to do things, acknowledge their mistakes, evaluate their products and behavior, feel a sense of power, and know how to try. Protheroe and Clarke (2008) also assert the importance of teaching students with learning disabilities to use learning strategies in the following way:**

**An increasingly strong research base points to the potential of strategy instruction to help support struggling learners, including students with learning disabilities. Specifically, teaching students how to use learning**



**strategies, and helping them choose and implement them effectively, helps [sic] to strengthen their metacognitive abilities—and this, in turn, connects to improved student learning. (p. 34)**

**In support of the benefits of learning strategies instruction for students with learning disabilities, Proctor, August, Carlo, and Snow (2006) found that these students scored lower on the measures of learning strategy use than did their non-disabled peers as a result of comparing the learning strategies used by 79 postsecondary students with disabilities to those used by 139 students without disabilities. Vann and Abraham (1990) also found evidence that unsuccessful learners "apparently...lacked...what are often called metacognitive strategies...which would enable them to assess the task and bring to bear the necessary strategies for its completion" (p. 192). Likewise, Vandergrift (2003) found that the more-skilled listeners used more meta-cognitive strategies over time than the less-skilled listeners. Therefore, identifying the cognitive and metacognitive strategies successful learners use makes it possible to help unsuccessful language learners to become more successful, through the deliberate teaching of these strategies. This deliberate teaching can benefit students with learning disabilities in particular because it will help them to become more aware of their thinking processes, to recognize when meaning breaks down, and to understand what strategies work best for them. It has also been suggested that strategy instruction can help learners with disabilities to overcome certain psycholinguistic and affective constraints in the classroom. As Nyikos (1996) states, strategy instruction "helps overcome nervousness, the inability to remember and the need to immediately produce language during oral communication. Being able to overcome these limitations will obviously make learning more efficient" (p. 112). In short, learning strategies instruction benefits all students, including those with learning disabilities. Learning strategy research also**

suggests that less competent students improve their skills through training in strategies used by more successful learners. Therefore, many educators propose that learning strategy instruction should be integrated into regular courses.

## **2.3. Classification of language learning strategies**

There are many taxonomies of language learning strategies (e.g., Chamot and Küpper, 1989; O'Malley, Chamot, Stewner-Manzanares, Küpper, and Russo, 1985). However, most of these taxonomies reflect more or less the same categories of language learning strategies. In an attempt to bring many of the categorizations of learning strategies together, Dornyei (2006) proposes a taxonomy which consists of four categories: Cognitive strategies, metacognitive strategies, social strategies and affective strategies. These four categories are the next topics of discussion.

### **2.3.1. Cognitive strategies**

Cognitive psychologists generally agree that cognitive strategies are behaviors, techniques, or actions used by learners to "operate directly on incoming information, manipulating it in ways that enhance learning" (O'Malley and Chamot, 1990, p. 44). These strategies are closely linked to language skills. More specifically, there are clusters of learning strategies for each language skill. For example, the reading comprehension strategies that have consistently been advocated as playing an important part in the reading comprehension include: making predictions about the likely content of a text, clarifying, guessing, questioning, and summarizing. The choice from these cognitive strategies depends on the demands of the reading task, among many other factors. Over and above, the learner should employ a variety of strategies to comprehend what s/he reads on condition that these strategies should support and complete each other. In support of this, research suggests that teaching a repertoire of strategies enhances

the performance of academic tasks (Dole, Nokes, and Drits, 2009; Duke, Pearson, Strachan, and Billman, 2011; McNamara and Magliano, 2009) and is more effective than individual strategy instruction (e.g., Duke and Pearson, 2002; Pressley and Afflerbach, 1995).

Cognitive strategies are very important for all students. In general, these strategies enable students to learn better because they help them process (organize, understand, retain and retrieve) the information they are actually learning. In addition, the use of these strategies enables students to perform efficiently on learning tasks as they help them “develop the necessary skills to be self-regulated learners, to facilitate comprehension, to act directly on incoming information, and ultimately improve academic performance” (Khoshsima and Tiyyar, 2014, p. 90). Meltzer and Krishnan (2007) also assert that “effective cognitive strategies help students bridge the gap between their weak executive function skills and the academic demands they face” (p. 88). Moreover, cognitive strategies instruction is one of the most effective ways of improving the academic performance of students with learning disabilities. Many scholars and researchers agree that teaching those students the very cognitive strategies used by successful students should be the key focus of their interventions. In essence, cognitive strategies can help students with and without learning difficulties learn better and enable them to become independent learners.

### **2.3.2. Metacognitive strategies**

Metacognition includes awareness of one’s own cognitive processes and one’s own affective processes. As Williams and Burden (1997) put it:

**Metacognition . . . includes not only a knowledge of mental processes, as these are necessarily linked to and affected by emotions and feelings. It must also encompass a knowledge of factors relating to the self, and the way in which these affect the use of cognitive processes. Thus, an awareness of one's personality, feelings, motivation, attitudes and learning style at any particular moment would be included within such a concept of metacognitive awareness. (p. 155)**

**Moreover, metacognition includes not only the conscious awareness of one's own cognitive and affective processes, but also the management of one's own learning through the use of metacognitive strategies. These strategies involve “planning for learning, [...] self-monitoring during learning and evaluation of how successful learning has been after working on language in some way” (Hedge, 2000, p. 78). While these strategies (i.e., planning, self-monitoring, and self-assessment) are distinct, they are also interdependent because (1) planning informs and promotes self-monitoring; (2) self-monitoring helps students attain learning goals; and (3) self-assessment enhances students' motivation to set new goals (Schunk, 1994).**

**Metacognitive strategies are very important for language learners because they help them select, monitor and regulate cognitive strategies. This in turn assists them in becoming more responsible for their own learning and enables them to change or modify their own cognitive processes. In support of this, there is a rich body of literature showing that higher proficiency students use metacognitive strategies more than lower proficiency ones and that the former tend to use them more flexibly and effectively (Bernhardt, 1991; Chamot, 2005; Zhang, 2008). Moreover, metacognitive strategies can positively impact students with learning disabilities by helping them become independent learners.**

As Lerner and Kline (2006) state, "Efficient learners use metacognitive strategies but students with learning disabilities tend to lack the skills to direct their own learning. However, once they learn the metacognitive strategies that efficient learners use, students with learning disabilities can apply them in many situations" (p. 184). Due to the importance these strategies, the next three sections will present them in some details.

### **2.3.2.1. Planning**

#### **2.3.2.1.1. Definition and types of planning**

Planning is a metacognitive strategy used by learners before doing a task to set goals and consider the ways these goals will be achieved (Zimmerman, 2000). However, planning-in-action may take place while doing the task to change goals and reconsider the ways of achieving them. As Humes (1983) claims with respect to writing, planning occurs before, during, and after putting words on a page. Humes maintains:

Planning is a thinking process that writers engage in throughout composing, before, during, and after the time spent in putting words on a page. During planning, writers form an internal representation of knowledge that will be used in writing. (p. 205)

There are two types of planning. One type is process-oriented. With this type of planning students look for ways to help them perform a task more skillfully. The other type is outcome-oriented. With this type of planning, students are concerned about their overall outcome (Seijts and Latham, 2006).

#### **2.3.2.1.2. Benefits of planning**

The benefits of planning for learning include: (1) giving students the opportunity to set their own personal goals and to see their

own progress, which in turn foster their self-regulation skills and increase their motivation for learning, and (2) reducing the cognitive strain while learning which in turn improves academic achievement (Zimmerman, 1998). In support of these benefits, many research studies indicate that successful learners utilize planning for language learning (Graham and Harris, 1996; Zimmerman and Risemberg, 1997) and that students' planning positively affects the comprehension and production of language. Ellis (1987) and Crookes (1989), for example, found that planning positively affected students' oral performance. In a similar vein, Pintrich, Smith, Garcia, and McKeachie (1991) found that learners' use of planning resulted in deeper processing and higher levels of understanding the materials being learned. Moreover, Dellerman, Coirier, and Marchand (1996) found that planning was most effective for nonproficient writers. Furthermore, Asaro-Saddler (2008) found that planning was beneficial in improving the writing skills of second and fourth grade students with autism spectrum disorders.

### **2.3.2.2. Self-monitoring**

#### **2.3.2.2.1. Definition and types of self-monitoring**

Self-monitoring is defined as a metacognitive strategy utilized to observe and regulate cognitive strategies while doing a task to fine tune strategies and effort as needed in order to achieve learning goals. For example, when reading, a student can use the context to guess the meaning of difficult words. To monitor her/his use of this strategy, s/he should pause and check to see if the meaning s/he guessed makes sense in the text and if not, s/he goes back to modify or change this strategy. Thus, self-monitoring enables students to track understanding as they read and to implement repair strategies when understanding breaks down (Zimmerman, 1998, 2000).

There are two types of self-monitoring procedures: self-monitoring of attention (SMA) and self-monitoring of performance (SMP). SMA procedures are used for learning disabilities who might be easily distracted, get up from their seats, bother other students, or fiddle with objects. The student can monitor the frequency or duration of these behaviors. SMP procedures are used for students who need to monitor some aspects of academic performance to enhance active learning (Harris, 1986).

#### **2.3.2.2.2. Benefits of self-monitoring**

Self-monitoring is necessary for academic success (Conley, 2007). Students who successfully use self-monitoring actively adjust performance and strategies as needed in order to attain goals without the need for external feedback, thus increasing the probability of success in achieving learning goals (Zimmerman, 1998) and fostering autonomy in learning (Cresswell, 2000). In support of this, researchers found positive relationships between self-monitoring and academic achievement (e.g., Kauffman, 2004; Schraw and Nietfeld, 1998). Research also showed that self-monitoring positively affected both the length and quality of the written stories of fifth and sixth graders with learning disabilities (Harris, Graham, Reid, McElroy, and Hamby, 1994), and both the quantity and quality of the narrative and expository writing of fourth-grade students with learning disabilities (Goddard and Sendi, 2008).

Additionally, self-monitoring often reveals valuable information regarding one's own deficiencies and goes beyond the detection to the repair of these deficiencies, thus increasing the probability of improving the learning of students with learning disabilities because it enables these students to track understanding as they read and to implement repair strategies when understanding breaks down. It also encourages them to look critically and analytically at their writing and to place themselves in the position of the reader. In support of this, research revealed that students at all grade levels, including those who had cognitive

or behavioral disabilities, could successfully learn to use and benefit from self-monitoring interventions (e.g., Hughes and Boyle, 1991; Hughes, Copeland, Agran, Wehmeyer, Rodi, and Presley, 2002; Reid, 1996). Moreover, research on self-monitoring with students of learning disabilities (e.g., Harris, Graham, Reid, McElroy, and Hamby, 1994; Gumpel and Shlomit, 2000; Hughes, Copeland, Agran, Wehmeyer, Rodi, and Presley, 2002; Goddard and Sendi, 2008) demonstrated that self-monitoring led to positive changes in social behaviors, aggressive behaviors, disruptive behaviors, on-task behaviors, and academic performance behaviors.

Furthermore, based on learners' perceptions of their progress, self-monitoring can positively affect the level of students' self-efficacy. When learners perceive satisfactory progress, their feelings of competence and efficacy may be strengthened. In sum, self-monitoring empowers students to be in control of their learning.

### **2.3.2.3. Self-assessment**

#### **2.3.2.3.1. Definition of self-assessment**

Self-assessment can be defined as information about the learners provided by the learners themselves, about their abilities, the progress they think they are making and what they think they can or cannot do yet with what they have learned in a course (Blanche and Merino, 1989). Harris and McCann (1994) also define self-assessment as “information about students' expectations and needs, their problems and worries, how they feel about their own [learning] process, their reactions to the materials and methods being used, what they think about the course in general” (p. 36). According to Oscarson (1997), self-assessment is concerned with knowing how, under what circumstances and with what effects learners and users of language judge their own performance.



In light of the previous definitions, it is clear that self-assessment is self-judgment of one's own learning processes and products for the purpose of improving them, not for a grade or placement.

#### **2.3.2.3.2. Merits and demerits of self-assessment**

Self-assessment is a key to academic success because it helps learners to identify their own strengths and weaknesses, thus assisting them in addressing areas in need of improvement to adjust effort, resources, and strategies accordingly. In other words, self-assessment helps learners to gain insight not only in the processes of learning (how they learned and what did or did not work for them) but also in the products of their own learning (what they have learned or not learned). Moreover, the greater students' ability to accurately self-assess their potential for success at a specific task, the more likely it is that they will work hard and expend extra effort in order to maximize the chances of mastery over the task (Bandura, 1991). In support of this, studies showed that self-assessment positively affected achievement outcomes, skill acquisition, and self-regulation (Schunk, 1994; Kitsantas, Reiser, and Doster, 2004).

Self-assessment is also one of the cornerstones of self-directed language learning. In order for self-directed learning to occur, learners must be able to determine accurately what their needs are, and to take action to meet these needs. In other words, students need to be able to self-assess their own learning processes and outcomes accurately so that they themselves understand what they need to learn without the help of their teachers. In this respect, Gottlieb (2000) states that “[m]ultiple opportunities for self-assessment within instruction allow second language students to develop as independent learners while acquiring English” (p. 97). Likewise, Rivers (2001) speaks of self-assessment as the most salient skill for self-regulation and self-directed learning to take place. He goes so far as to say, "In the absence of either accurate self-assessment or genuine autonomy, self-directed language

learning will not occur” (p. 287). Therefore, self-assessment practices are considered an essential component of self-regulated learning.

Additionally, the utilization of self-assessment practices is vitally important to the development of critical thinking skills. According to McMahon (1999), in order to develop critical thinkers, assessment procedures must include self-assessment practices. He believes that these practices lead to far more critical analysis of assessment criteria on behalf of the learner and encourages the learner to challenge assumptions. Fitzpatrick (2006) also contends that self-assessment helps to develop students’ critical thinking and sense of autonomy. In support of this, some studies reported improved higher order cognitive skills by self-assessment but the outcomes were mostly supported by student self-reports (See Falchikov, 2005, for a review of these studies).

Moreover, motivation and self-efficacy can be fostered significantly more with continuous self-assessment than without it. Teachers can enhance students’ motivation for learning when self-assessment becomes part of day-to-day teaching and when learners do it for monitoring progress and improvement, not for a grade or placement. The results of several studies also established that self-assessment practices in the field of language learning had increased student motivation (Black and Wiliam, 1998; Blanche and Merino, 1989; von Elek 1985). Self-assessment can also enhance students’ self-efficacy because it gives students a voice in their learning which contributes to their self-efficacy (Bandura, 1997). In this respect, Dodd (1995) believes that self-assessment promotes self-efficacy, supporting the belief that students who feel ownership for the class or task and believe they can make a difference, become more engaged in their own learning process, which in turn enhances their self-efficacy. In support of this, Coronado-Aliegro (2006) found that Spanish undergraduate students’ self-efficacy seemed to be strengthened significantly more with continuous self-assessment than without it.

**Besides, self-assessment can boost students' confidence. In relation to writing, Pajares, Johnson and Usher (2007) mention this benefit as follows:**

**Frequent self-assessment leads to more successful writing. [...] as students learn to evaluate themselves as writers, they also learn to set goals and strategies for improving their writing and to document their growth. This self-awareness helps students to interpret their achievements in ways that will boost their confidence. (p. 116)**

**Furthermore, self-assessment is seen by Boud (2000) as a “necessary skill for lifelong learning” (p. 159) because it is beneficial for people in their daily lives and helps them to meet the challenges of a changing society. Ellis (1999) also asserts that knowing one's strengths and weaknesses can make a difference in the real world. He adds that when people carry out self-evaluation they will have a truer sense of what is good or better for them, whether in a work situation or an academic one. Therefore, Boud, Cohen, and Sampson (1999) state that without fostering self-assessment, assessment will “undermine an important goal of lifelong learning” (p. 419).**

**Over and above, self-assessment practices in the classroom also make teachers aware of individual students' learning processes and needs. They also help them gather information about learners from another perspective, in this case, the learners themselves (Black, Harrison, Lee, Marshall, and Wiliam, 2003). Furthermore, self-assessment alleviates the assessment burden on teachers and saves their time because it spares them from assessing students' language learning progress continuously and regularly in all areas. In addition, rather than giving a comprehensive diagnostic test to have a glimpse of students' problem areas, it is much faster to ask them directly what problems they feel they have (Harris and McCann, 1994).**

**Additional benefits of involving students in assessment include: developing students' reflection, reducing their anxiety, raising their awareness of learning strategies, providing the basis for agreement between student and teacher on academic priorities, encouraging objective analysis of one's own attitudes and aptitudes, encouraging individual goal setting, acknowledging differences in learning styles, and developing democratic citizens who know how to evaluate different views for the public good.**

**However, critics of self-assessment argue that there are many obstacles that prevent its application. The most serious one among these obstacles is that students may either overestimate or underestimate their own progress. In support of this, research has shown that students with elementary skills and students with low self-esteem tend to overestimate their abilities, placing emphasis on effort rather than achievement, while students who are more proficient tend to underestimate their abilities (Boud, 1995; Falchikov and Boud, 1989).**

**To surmount the obstacle of students' inaccurate estimation of their own progress, many assessment experts (e.g., McDevitt and Ormrod, 2004; Paris and Ayres, 1994; Winne, 1995) suggest ways such as (a) providing students with self-assessment training, (b) identifying appropriate criteria for self-assessment, (c) explaining and modeling these criteria, and (d) giving students feedback on their self-assessments. In support of self-assessment training as a way for surmounting inaccurate estimation, research showed that self-assessment training had a positive effect on the quality of self-assessment and learning. In her intervention study, which focused on self-assessment training with a group of adult immigrants learning Dutch, Dieten (1992) concluded that "training can have a positive effect on the quality of self-assessment, provided it is conducted in the way intended" (p. 220). Along the same line, Ross, Rolheiser and Hogaboam-Gray (1999) found that teaching self-assessment skills increased**

accuracy, especially for those who tended to overestimate, and had a positive effect on achievement among low achievers as it helped them better understand teacher expectations. They (Ross, Rolheiser and Hogaboam-Gray) concluded that language students have to be taught to self-assess their work correctly. Likewise, McDonald and Boud (2003) found that self-assessment training had a significant impact on student performance in all curriculum areas and students with training in self-assessment outperformed students without similar training.

Research also reveals that using assessment criteria can enhance the quality of self-assessment practice and improve student learning. Eighty-four percent of the students in a study by Orsmond, Merry, and Reiling (2000) who self-assessed their progress in relation to set criteria thought that the exercise had been beneficial and made them better critical thinkers. Orsmond et al. (ibid.) also concluded that “[d]eveloping an appreciation of criteria may enhance the quality of the assessment practice and have a major impact on student learning” (p. 24). Along the same line, in a study with high school students, Andrade and Boulay (2003) established that simply giving and explaining assessment criteria gave students a deeper understanding of the qualities evaluated. In another study with undergraduate students, Andrade and Du (2005) found that having a good grasp of assessment criteria made the students able to self-assess their work in progress and helped them “identify strengths and weaknesses in their work” (p. 3). They also found that students reported positive attitudes when they were involved in criteria-referenced self-assessment.

Research also indicates that teacher feedback on student self-assessment improves the quality of self-assessment. Taras (2003), for example, found that minimal integrated tutor feedback allowed the students a high level of independence to consider their errors, understand assessment procedures including criteria and feedback, and realize what their strengths

and weaknesses were before being given a grade. She (ibid.) concluded that “SA [self-assessment] without tutor feedback cannot help students to be aware of all their errors” (p. 561), and that “student self-assessment with integrated tutor feedback is one efficient means of helping students overcome unrealistic expectations and focus on their achievement rather than on the input required to produce their work.” (p. 562). In the same vein, El-Koumy (2010) found that self-plus-teacher assessment was more effective than either alone. He offered the following recommendation:

Rather than viewing self and teacher assessments as opposing strategies, it is more useful to capitalize on the advantages of both. In other words, for self-assessment to be effective, students are in need to practice it with teacher feedback. The teacher feedback can be decreased gradually, and the student can take greater responsibility for assessment as her/his self-assessment skill is developed. (p. 16)

To summarize, it seems that self-assessment has advantages and disadvantages. However, based upon the literature reviewed before, the advantages of using self-assessment as a tool for improving students' learning seem to outweigh the disadvantages. There are no consistent conclusions regarding the reliability and validity of self-assessment. However, this should not prevent educators from using it in teaching and learning.

### **2.3.2.3.3. Self-assessment tools**

Many educators believe that students need instruments in order to be able to independently take charge of the assessment of their own learning. Checklists, learning logs and learning strategies questionnaires are examples of the tools used to help students reach this goal. (For additional information on these self-assessment tools, see El-Koumy, 2004b).

#### **2.3.2.3.4. Self-assessment of one's own metacognitive strategies**

**Teachers should encourage students to evaluate the whole cycle of planning, monitoring and assessment through self-questioning. In this respect, Schraw (1998) suggests that for promoting metacognitive awareness, students should ask themselves the following questions that trigger each stage of their thoughts from planning to approach a particular task, monitoring the strategies being applied to the task, and evaluating their learning outcomes:**

##### **(1) Planning**

- What is the nature of the task?**
- What is my goal?**
- What kind of information and strategies do I need?**
- How much time and resources do I need?**

##### **(2) Monitoring**

- Do I have a clear understanding of what I am doing?**
- Does the task make sense to me?**
- Am I reaching my goals?**
- Do I need to make changes?**

##### **(3) Evaluating**

- Have I reached my goal?**
- What worked?**
- What didn't work?**
- Would I do things differently the next time?**

Likewise, Anderson (2002) suggests that teachers should have students respond thoughtfully to the following questions: “(1) What am I trying to accomplish? (2) What strategies am I using? (3) How well am I using them? (4) What is the outcome? (5) What else could I do?” (p. 3). In responding to these questions, students reflect on their own metacognitive strategies. The first question relates to planning; the second and third questions correspond to self-monitoring; and the fourth and fifth questions relate to evaluation of their own learning. Similarly, Thamraksa (2005) suggests that students should ask themselves the following questions that trigger their thoughts before, during and after doing a task:

**(1) Before:** When students are developing a plan of action, they can ask themselves:

- What is my prior knowledge that will help me do this task?
- What should I do first?
- What is my expectation in doing this task?
- How much time do I need to complete this task?

**(2) During:** When students are doing the task, they can ask themselves:

- How am I doing?
- Am I on the right track?
- What strategies am I using?
- Should I use a different strategy to complete this task?
- What other things/information should I need?

**(3) After:** After doing their task, students can ask themselves:

- How well did I do?
- What did I learn from doing this task?



- Did I learn more or less than I had expected?**
- Do I need to redo the task?**
- What could I have done differently?**

### **2.3.3. Social strategies**

**Social strategies are actions that involve other people. These strategies include, but are not limited to, asking others for help, speaking together in the target language, working with fellow-students, and reviewing others' work. According to Oxford (1990), social learning strategies include four main categories. The first is asking questions; for instance, asking for clarification, verification, or correction. The second is cooperating with others; for example, cooperating with peers and proficient users of the new language. The third is empathizing with others like developing cultural understanding and becoming aware of others' thoughts and feelings. The fourth is seeking opportunities; for example, reading, writing and speaking with natives, teachers and proficient peers.**

**From the social constructivist viewpoint, social strategies are extremely important for all learning because learning is a social process and people learn by becoming members of communities. In these communities, social strategies play a major role as they allow people to construct meaning together and to learn from each other. Walqui (2006) expresses this idea in the following way:**

**The basis for all learning is social interaction. Vygotsky emphasizes that social interaction precedes the development of knowledge and ability. Consciousness, the notions of self and identity, physical skills and mental abilities, all these have their origin in social interaction between the child and parent, and between the child, peers and others, including teachers. (p.162)**

**Social strategies are particularly more important for language learning because language is a social behavior and cannot be separated from its social context. As Williams (1994) points out, “[T]here is no question that learning a foreign language is different to learning other subjects. This is mainly because of the social nature of such a venture. Language, after all, belongs to a person’s whole social being; it is part of one’s identity” (p. 77). Therefore, many scholars (e.g., Ellis, 1988; Ligthbown and Spada, 1993; Strickland and Shanahan, 2004; Williams, 1994) emphasize the importance of social interactions for developing the learner’s communicative and linguistic competence. Ellis (1988), for example, claims that second language development in classroom can be successful when the teacher not only provides an input with features of a target language, but also makes conditions necessary for reciprocal interaction. “Without interaction, [language] teaching becomes simply [...] passing on content as if it were dogmatic truth” (Shale and Garrison, 1990, p. 29).**

**Over and above, social strategies help students communicate more effectively and successfully and permit them to actively engage with the emerging themes and issues that exist in real-world contexts. They also allow them to use language in non-threatening communities, and afford them more opportunities for interactions. In these interactions students feel more comfortable and more confident to share their own thoughts, opinions, and ideas; and use the language openly and freely.**

#### **2.3.4. Affective strategies**

**Affective strategies are learning strategies concerned with managing one's own emotions, motivations, and attitudes. These strategies include, but are not limited to, activating supportive emotions, beliefs and attitudes; generating and maintaining motivation; positive self-talk; anxiety reduction; self-reward; taking wise risks; self-encouragement; relaxation; sharing worries**

with tutor and other students; ticking off completed tasks; joining a self-help group, and engaging in leisure activities such as gardening; encouraging one's self, and taking one's own emotional temperature (Oxford, 1990, 2013; Oxford and Crookall, 1989).

The importance of affective strategies is widely recognized in all areas of learning. The literature indicates that positive affect can play a key role in stimulating critical and creative thinking (Isen, 1999, 2000; Isen, Daubman, and Nowicki, 1987; Kahn and Isen, 1993); broadening attention and steering mental processes and cognitive decisions (Isen, 1984; Isen and Reeve, 2005; Isen and Shalke, 1982; Rowe, Hirsch, and Anderson, 2007); maintaining commitment to task and boosting problem-solving skills (Isen, 2000; Isen and Patrick, 1983; Isen and Reeve, 2005); fostering helpfulness, kindness and flexibility during group interaction and cooperative work (Isen, 2001); improving achievement (Hamre and Pianta, 2005); and boosting language learning (Crooks and Schmidt, 1991; Dornyei, 2008; Gardner, 2001, 2010). In contrast, negative affect states such as anxiety and depression leads to deficits in attentional and cognitive control mechanisms, closing off, withdrawal, and low language achievement (Horwitz, 2001; Horwitz, Horwitz, and Cope, 1986; Hurd, 2007; MacIntyre, 1995, 1999; Matsuda and Gobel, 2004; Mayberg et al., 1999; Zheng, 2008).

Moreover, a review of neuroscience research (e. g., Ashby, Isen, and Turken, 1999; Estrada, Isen, and Young, 1997; Gray, Braver, and Raichle, 2002) also revealed the beneficial role of positive affect in the workings of the neural pathways that in turn resulted in improving the performance of cognitive tasks. Ashby et al. (1999), for example, provided evidence demonstrating that positive affect influenced everyday cognitive processes and improved episodic and working memory. Their study also showed the effect of positive affect on neural and chemical pathways that resulted in improving creativity, problem solving, social interaction and emotional reactions associated with changes in brain activity.

Furthermore, affective strategies are particularly important for foreign language learners because learning a new language can be highly stressful (Arnold, 1998). The literature indicates that these strategies can play a key role in helping students gain better control over their own emotions, overcome their negative attitudes, increase their self-confidence and reduce their anxiety (Hurd, 2006; Oxford and Crookall, 1989). This in turn enhances their learning, as Bolitho, Carter, Hughes, Ivanic, Masuhara, and Tomlinson (2003) put it, "[M]ost learners learn best whilst affectively engaged, and when they willingly invest energy and attention in the learning process" (p. 252). Furthermost, affective strategies are important for students with learning disabilities because research indicates that these students enter into foreign language learning with a history of failure and frustration and perceive themselves as less capable, more anxious, and as possessing fewer capabilities to master oral and written language skills as compared to their non-LD peers (Javorsky, Sparks, and Ganschow, 1992). Therefore, affective strategies are essential for them to build their confidence, increase their motivation to learn a foreign language and lessen their anxiety.

It may be appropriate here to point out that although affective strategies are actions taken in relation to self, the teacher can play an important role in raising students' awareness of these strategies. More importantly, s/he can create a relaxed atmosphere conducive to learning through her/his non-verbal behaviors (e.g., reducing physical distance, displaying relaxed postures, smiling, engaging in eye contact during interactions) and verbal behaviors (e.g., addressing students by name, praising them, using inclusive pronouns) (Gorham, 1988).

In addition, the teacher can create a non-threatening and low-anxiety classroom atmosphere by tolerating students' linguistic errors to remove their fear of being wrong. S/he should "pay attention to the message of students' utterances rather than to the form in which the utterances are cast... [and] treat the correction of errors as a 'pragmatic' or interactional adjustment, not as a

normative form of redress, for example, by restating the incorrect utterance in a correct manner rather than pointing explicitly to the error" (Kramsch, 1987, p. 17). Macaro (2003), too, casts doubt on the importance of error correction saying, "I would argue that we should focus on forms in order to generate more learner errors, more inaccuracy". Therefore, the teacher should convey to the students that making errors is normal and a signal of progress in learning, rather than seeing these errors as sins. As Lewis (2002) puts it,

**Error is intrinsic to learning, and any strategy of error avoidance will be counter-productive. Anyone who learns a foreign language to a reasonable degree of proficiency will inevitably make thousands of mistakes on the way. Correcting every one of them is an impossibility. Fortunately it is also highly undesirable. (p. 173).**

Most importantly, the teacher should respect every student's thinking, deal with every student as an individual and value her/his individuality, make her/him feel accepted as a whole person by encouraging a realization in her/him that s/he is valued as other people, and share power and authority with her/him by allowing her/him to explore issues, make judgments and propose strategies to achieve justifiable goals. The teacher should also create opportunities for success to build self-esteem and self-confidence, praise every student frequently for successful work, and provide motivating texts and contexts for reading and motivating topics for speaking and writing.

Finally, the teacher should help students take control of and reflect on their affective strategies. To do so, Oxford (2013) suggests an eight-step model for meta-affective strategy instruction. The steps of this model are the following:

- (1) Paying attention to affect,**
- (2) Planning for affect,**
- (3) Obtaining and using resources for affect,**

- (4) Organizing for affect,**
- (5) Implementing plans for affect,**
- (6) Orchestrating affective strategy use,**
- (7) Monitoring affect,**
- (8) Evaluating affect.**

In sum, it appears that educating the heart is as important as educating the mind and that educating the latter without educating the former is no education at all. As Stern (1983) states, “The affective component contributes at least as much and often more to language learning than the cognitive skills” (p. 386). In the same vein, Harris (1997) draws attention to the importance of both affective and cognitive components saying, "If we attend to the affective and cognitive components ... we may be able to increase the length of time students commit to language study and their chances of success in it” (p. 20). Similarly, Arnold (1999) points out, “Neither the cognitive nor the affective has the last word, and, indeed, neither can be separated from the other” (p.1). Therefore, she (Arnold) emphasizes the need to treat students as whole persons, referring to the complex relationship between affect, learning and memory, and the inseparability of emotion and cognition in the workings of the human brain. It is clear then that the affective dimension is just like the blood beneath the skin or the soul inside the flesh, nourishing our interface with the world; therefore, it is fundamental to living in general and learning in particular.

## **2.4. Models of learning strategies instruction**

A variety of instructional models have been developed for learning strategies instruction (e.g., Chamot and O`Malley, 1994; Collins, 1998; Duke, 2001; Fowler, 2003; Kiewra, 2002; Oxford, 1990; Santangelo, Harris and Graham, 2008; Wenden, 1985). These models stress that learning strategies must be brought to a conscious level in the learner’s mind to enable him/her to

**implement these strategies independently in accordance with her/his needs and the requirements of the learning task. As Oxford (1990) states, "Learners need to learn how to learn, and teachers need to learn how to facilitate the process. Although learning is certainly part of the human condition, conscious skill in self-directed learning and in strategy use must be sharpened through training" (p. 201). Therefore, this section presents the most famous ones among the models of learning strategies instruction.**

**Oxford (1990) proposes an eight-step model for learning strategy instruction, in which the first five steps involve planning and preparation, and the last three ones concern conducting, evaluating, and revising the training program. The steps of this model are the following:**

- (1) Determining the learners' needs and the time available,**
- (2) Selecting strategies,**
- (3) Considering integration of strategy training,**
- (4) Considering motivational issues,**
- (5) Preparing materials and activities,**
- (6) Conducting completely informed training,**
- (7) Evaluating,**
- (8) Revising the strategy training.**

**Chamot and O'Malley's (1994) suggest a five-phase model for teaching learning strategies. These phases are the following:**

- (1) Preparation: In this phase the teacher activates students' background knowledge about current use of learning strategies. Activities in this phase include class discussions about strategies used for recent learning tasks, group or individual interviews about strategies used for particular**

**tasks, think aloud sessions in which students describe their thought processes while they work on a task, questionnaires or checklists about strategies used, and diary entries about individual approaches to language learning.**

- (2) Presentation: In this phase the teacher explains and models the learning strategies. S/he communicates to students information about the characteristics, usefulness, and applications of the strategies to be taught.**
- (3) Practice: In this phase, students have the opportunity of practicing the learning strategies with an authentic learning task.**
- (4) Evaluation: In this phase, the teacher provides students with opportunities to evaluate their own success in using learning strategies, thus developing their metacognitive awareness of their own learning processes.**
- (5) Expansion: In this phase students make personal decisions about the strategies that they find most effective and apply these strategies to new contexts.**

**Collins (1998) suggests a four-phase model for teaching strategic writing to struggling writers. These phases are the following:**

- (1) Identifying a strategy worth teaching,**
- (2) Introducing the strategy by modeling it,**
- (3) Helping students to try the strategy out with workshop-style teacher guidance,**
- (4) Helping students work toward independent mastery of the strategy through repeated practice and reinforcement.**

**Duke (2001) proposes that teachers should follow these five steps when introducing a new strategy: (1) explicitly describing the strategy and stating when and how it should be used, (2) modeling the use of the strategy in action, (3) collaborative use of the**



strategy in action, (4) guided practice using the strategy with gradual release of responsibility, and (5) independent use of the strategy.

Fowler (2003) proposes a strategic instruction model (SIM) for students with learning disabilities. This SIM incorporates both strategic instruction and content enhancement. It helps to meet the performance gaps through the teaching of learning strategies and the information demands through content enhancement routines. This model involves six main steps:

- (1) **Pretesting learners and encouraging them to become interested in learning the strategy:** The teacher determines how much the learners might already know about using the strategy and secure their commitment to learning the strategy from top to bottom. S/he explains to the learners what strategy they are going to learn and how it can help them in skills development.
- (2) **Describing the strategy:** The teacher gives a clear explanation of the strategy, identifies real tasks where the learners can apply the strategy and asks them if they can think of other work where the strategy might be useful.
- (3) **Modeling the strategy:** In this step, the teacher models the strategy for learners through thinking aloud as s/he works so that they can observe how a person thinks and what a person does while using the strategy.
- (4) **Practicing the strategy:** The teacher provides repeated opportunities to practice the strategy. The more learners and the teacher work together to use the strategy, the more the learners will internalize the strategy. Initial practice may be largely practitioner-directed, with teachers continuing to model appropriate ways of thinking about the task at hand and deciding (with increasing student direction) which strategy or action is needed to work through whatever problems arise in completing the task.

**(5) Providing feedback:** The teacher provides feedback to learners on their strategy use. Much of the feedback can be offered as learners become involved in thinking aloud about the task and about strategy use.

**(6) Promoting generalization:** In this step, learners apply the strategy in various situations and with other tasks. This transfer is not automatic for students with learning disabilities. Consistent and guided practice at generalizing strategies to various settings and tasks is therefore vital for students with learning disabilities.

Vacca, Vacca, Gove, McKeon, Burkey, and Lenhart (2006) suggest four steps for learning strategies instruction. These steps are:

- (1) Creating awareness of the strategy:** This step is a give-and-take exchange of ideas between teacher and students. These exchanges may include explanations and strategy tips and are built around questions such as "Why is the strategy useful?" "What is the payoff for students?" and "What are the rules, guidelines, or procedures for being successful with the strategy?"
- (2) Modeling the strategy,**
- (3) Providing practice in the use of the strategy,**
- (4) Applying the strategy in authentic situations.**

Santangelo, Harris, and Graham (2008) suggest a six-phase model for explicitly teaching learning strategies to students with learning disabilities. These phases are:

- (1) Developing preskills:** At this phase, students' prior knowledge about the task and strategy is assessed and remediation is provided when needed.
- (2) Discussing the strategy:** The strategy to be learned is described, a purpose for using the strategy is established, and the benefits of using the strategy are presented.

- (3) Modeling the strategy:** The teacher cognitively models (while thinking out loud) how to use and apply the strategy for the task.
- (4) Memorizing the strategy:** Students should be provided time to memorize the strategy until they are fluent in understanding each step. The use of mnemonics (e.g., POWER for Plan, Organize, Write, Edit, and Revise) and graphic organizers can help them memorize the steps of strategy.
- (5) Guided practice:** The teacher guides learners through a series of prompts and/or questions to apply the strategy.
- (6) Independent practice:** The teacher provides independent practice across task and settings to foster generalization and maintenance.

In summary, many of the previously mentioned models show a remarkable similarity with respect to the basic stages of strategy instruction. Most of them agree that effective strategy instruction must include four basic stages. At the first stage, the teacher raises students' awareness of the strategy/ies under focus by providing them with declarative knowledge about the strategy/ies (i.e., what strategy/ies they are learning), procedural knowledge (i.e., how the strategy/ies should be used and why) and conditional knowledge (i.e., in which contexts should the strategy/ies be used). At the second stage, students use the strategy/ies under focus in contextualized tasks under teacher guidance and/or in collaboration with more capable peers. At the third stage, each student uses the strategy/ies individually and independently in contextualized tasks. The final stage involves each student in evaluating the success of the strategy/ies s/he has already used in relation to task performance.

## **2.5. Methods of identifying and assessing learning strategies**

Language learning strategies are generally internal processes. They are for the most part unobservable, though some may be

associated with an observable behavior. For example, a student listening to information may use selective attention, which is unobservable strategy, to focus on the main ideas; and s/he might then decide to take notes of these main ideas, which is an observable strategy. The only way to find out whether students are using selective attention during a listening comprehension task is to ask them to voice or verbalize their inner processes during or after performing the task (Chamot, 2004). Mere observation will be unsatisfactory in identifying these mental processes because they are invisible and take place in the learners' heads. Given the covert nature of most of the learning strategies, some techniques have been developed to uncover such strategies. These techniques fall into two broad categories: (1) retrospective self-reports and (2) concurrent self-reports. Each of these techniques has its merits and demerits. Retrospective reporting gives learners the opportunity to think back and report on the strategies they believe they used before, during, and after doing a task. This type of reporting can be elicited through such tools as interviews and questionnaires. These tools provide basic information about students' awareness and use of learning strategies in general or in relation to a specific task. As Ellis (1994) says, "Interviews and questionnaires can require learners to report on the learning strategies they use in general or in relation to a specific activity" (p. 534). They also allow instructors to identify the cognitive processes responsible for students' behavior. Moreover, Jacobs and Paris (1987) have defended self-reports via questionnaires or interviews as a means to peer into the minds of those who are markedly shy or unable to speak. Though retrospective reporting can make the invisible visible and the implicit explicit and provide valuable insights into students' learning strategies, the very act of trying to remember what was happening can be taxing to some learners, particularly those with learning disabilities for whom retrospective recall is problematic. In addition, learners may fall into the trap of responding in the way they believe the instructor expects them to do, just to please her/him, whether they have answers or not. That is, in response to questionnaires learners may report using strategies that, in fact, they have not used.

Furthermore, if a questionnaire is written in the FL, learners may lack adequate proficiency to comprehend some questions or Likert-scaled statements and thus give inaccurate responses. Finally, certain types of learners may under- or over-estimate their use of learning strategies. In support of this, Meltzer, Katzir-Cohen, Miller, and Roditi (2001) found that fourth through ninth graders with learning disabilities rated themselves as highly strategic on a self-report measure using a Likert-like scale, reports with which their grades and teachers' reports did not concur.

Concurrent reporting is another means of making learners' cognitive processes overt via thinking-aloud while performing a task. This type of reporting is beneficial for both learners and teachers. For learners, thinking-aloud induces them to become more aware of what they think, what they understand and what they do not, and what they need to do when misunderstanding occurs. It also raises their awareness of the mental processes that occurs during performing a specific task. In other words, it helps them to be cognizant of what occurs in their own minds during performing a task and what strategies they call into play to boost their performance (Anderson and Vandergrift, 1996). For teachers, thinking-aloud allows them to identify and assess learners' cognitive and metacognitive strategies, which in turn helps them to change and/or improve the covert processes responsible for learners' behavior. Moreover, teachers themselves may use thinking-aloud as an intervention or instructional technique to model effective strategies to their students (Ericsson and Simon, 1984; Pressley and Afflerbach, 1995). However, several drawbacks to this particular type of reporting must be noted. Learners may have difficulty verbalizing their own thoughts while doing the task because they think faster than they talk, and their oral language proficiency level may not help them to express their mental processes precisely and accurately. Furthermore, thinking-aloud slows down cognitive processes (Nielsen, Clemmensen, and Yssing, 2002), and concurrent verbalization may be problematic when the task involves "a high cognitive load, when the information is difficult to verbalize

because of its form” (Branch, 2000, p. 379). Moreover, concurrent verbalization puts a cognitive load on and requires a cognitive involvement from the user, which may interfere or even compete with the cognitive requirements of the task (Karsenty, 2001). In addition, Ericsson and Simon (1993) concede that concurrently elicited verbal reports are not likely to be complete.

Although the previously-mentioned types of reporting lack standardization, they are the only ways available to teachers to generate insights into unobservable learning strategies, to collect information from students about their learning strategies, and to develop some understanding of learners’ mental processes. As Grenfell and Harris (1999) point out, “It is not easy to get inside the ‘black box’ of the human brain and find out what is going on there. We work with what we can get, which, despite the limitations, provides food for thought” (p. 54). Despite their limitations, the two types of reporting can adequately reveal learning strategies by allowing learners to use their native language for reporting, combining two or more of the protocols used for assessing learning strategies (e.g., interviews in conjunction with videotaped thinking-aloud), providing learners with training in thinking-aloud via modeling to enable them to describe their thinking clearly and explicitly, and giving them prompts if they fall silent for more than 30 seconds during thinking-aloud (e.g., "What are you thinking now?" "What's going through your mind?" "Say it aloud.").

## **2.6. Research into effective/ineffective learning strategies**

An abundant body of research has examined the strategies successful language learners tend to use in order to manage their overt behaviors. As Ellis (1994) states, much of the research on language learning strategies "has been based on the assumption that there are 'good' learning strategies" (p. 558). Rubin (1975) was among the first researchers who focused on strategies of successful language learners because, as she stated, once identified,

such strategies could be made available to less successful learners so that they could increase their success rate. Her findings revealed that the good language learner was willing and accurate guesser; had a strong persevering drive to communicate; was often uninhibited and willing to make mistakes in order to learn or communicate; took advantage of all practice opportunities; monitored her or his own speech as well as that of others; and paid attention to meaning. Later on, studies into effective and ineffective learning strategies focused on learning strategies used in specific language areas. In the area of reading, Hosenfeld (1977) found that successful L2 readers kept the meaning of the passage in mind, skipped words that they believed to be unimportant to the meaning of the sentence or text, read in broad phrases, and used context to determine the meaning of unknown words. Less successful readers, on the other hand, translated sentences on a word-for-word basis, rarely skipped words, and looked up unknown words in a glossary. In a like manner, Kaufman, Randlett, and Price (1985) found that high comprehenders used more strategies than low comprehenders when confronted with comprehension difficulties and that although both groups reported using equal amounts of concrete, observable strategies when reading (e.g., skimming, re-reading, slowing down reading pace), high comprehenders were more likely to report using strategies that involve complex, unobservable mental operations to repair their misunderstandings (e.g., visualizing, perspective-taking, making predictions, drawing inferences). According to the researchers, these findings provide evidence that good readers use different sets of strategies when confronted with a comprehension problem. Specifically, they noted that higher order, complex thinking skills are required to achieve an accurate and thorough understanding of difficult passages.

In addition, Block (1986) found that more successful readers used global strategies such as anticipating content, recognizing text structure, identifying main ideas, using background knowledge, monitoring comprehension, and reacting to the text as a whole. In contrast, less successful readers used local strategies such as questioning the meaning of individual words and sentences.

By the same token, Barnett (1989) found that successful readers hypothesized about what might come next, and guessed the meaning of unknown words. Unsuccessful readers, on the other hand, focused on the meaning of individual words, paid attention to text structure, reread isolated difficult parts only, never or rarely hypothesized, and resisted skipping unknown words. Furthermore, Pressley (1995) found that good readers and writers selectively and flexibly applied a vast array of strategies to every reading or writing event. In contrast, students who experienced difficulty with reading and writing typically used fewer strategies and their strategy use tended to be rigid rather than flexible. Moreover, in their study of the behaviors of effective readers, Pressley and Afflerbach (1995) found that expert and highly skilled readers used metacognitive strategies before, during, and after reading.

Along the same line, recent studies tend to support the findings of the previous studies conducted in the 1980s and 90s. In a meta-analysis of research on reading strategies, Singhal (2001) concluded that it is “clear that there are indeed differences between successful or good readers, and less successful or poor readers in terms of strategy use” (p. 4). Specifically, successful readers had been found to rely primarily upon top-down strategies. In contrast, less proficient readers’ strategies tended to be more local, reflecting a desire to treat reading as a decoding process rather than a meaning-making process. Saricoban (2002) examined the strategy use of post-secondary ESL students and found that successful readers engaged in predicting and guessing activities, made use of their background knowledge related to the text’s topic, guessed the meaning of unknown words, and skimmed and scanned the text. In contrast, less successful readers focused on individual words, verbs in particular. In the same vein, Lau (2006) examined the reading strategies used by good and poor Chinese readers in Hong Kong. The results from the study showed that good readers used more strategies during reading than did poor readers. Good readers were also more knowledgeable about reading strategies, which presumably allowed them to apply strategies more effectively.



**In the area of writing, Raimes (1987) examined ESL learners at different levels in order to compare a wide range of their composing behaviors with native speakers and to describe their writing strategies through think-aloud protocols. Her research findings revealed that skilled L2 writers engaged in more interaction with the text and were consistently involved in more strategies, including planning, rehearsing, rescanning, revising, and editing. Simultaneously, they were well aware of the audience and the purpose of a given task. In contrast, the unskilled L2 writers seemed to attach to their already produced text, with the result that they failed to be flexible to edit or reformulate their writing. These findings are consistent with those of many other studies (e.g., de Bot, 1996; Schoonen and De Glopper, 1996). The findings of these studies revealed that more proficient writers paid more attention to higher processes while less proficient writers were more concerned with lower processes.**

**In the area of listening, Vandergrift (2003) compared the listening comprehension strategies of more- and less-skilled Canadian seventh-grade students of French. Students listened to several French texts and were prompted to think aloud during the process. The more skilled listeners used more metacognitive strategies, especially comprehension monitoring, than did their less skilled peers. In addition, more skilled listeners engaged in questioning for clarification, whereas the less skilled listeners used more translation.**

**In sum, research has shown that good language learners engage in the use of both cognitive and metacognitive strategies for learning and that the major difference between successful and unsuccessful language learners is that successful learners employ appropriate strategies for language learning while unsuccessful learners employ inappropriate ones. More specifically, successful language learners rely more on top-down processing strategies while unsuccessful language learners rely more on bottom-up processing strategies.**

## **2.7. Research on teaching learning strategies to students with language/learning disabilities**

**A large body of research supports the positive effects of strategy training on the language learning of students with and without learning disabilities. This section presents studies conducted only with students with language/learning disabilities.**

**Borkowski, Weyhing, and Carr (1988) taught summarization and attribution strategies to 10- to 14-year-old students with learning disabilities. The attributional components included the instructor modeling statements like, "I need to try and use the strategy," and, "I tried hard, used the strategy, and did well" (p. 49). In addition, in an attribution-plus condition, students were reminded that strategy use would be beneficial to them and were prompted to attribute success and failure to controllable factors. Findings indicated that the attribution-plus condition combined with the summarization treatment condition maintained superior performance effects over other conditions on summarization measures and standardized measures of reading comprehension.**

**Malone and Mastropieri (1992) taught middle school students with learning disabilities how to self-question and summarize while reading. The summarization instruction condition taught students to ask and answer these two questions: (a) Who or what is the passage about? and (b) What is happening to the who or what? In another condition, self-monitoring was added to the summarization condition, whereas a third condition served as a traditional instruction comparison condition. Both summarization conditions outperformed traditional instruction on free-recall measures of passage content, whereas students in the summarization plus self-monitoring condition outperformed both comparison conditions on a transfer measure.**

**Rich and Blake (1994) implemented a comprehension intervention that included instruction in some comprehension strategies. The participants for their study consisted of five students with language/learning disabilities. These students**

received instruction in identifying main ideas, self-questioning, and paraphrasing. During the intervention, students kept daily journals evaluating their cognitive and affective behaviors. Reading outcomes were measured with expository passages excerpted by the researchers from informal reading inventories and students responded to eight questions about each passage. The researchers reported that all five students made improvements from the pretest to the posttest in listening comprehension with scores on the outcome measure ranging from 56–100% (2 students below 75% on the posttest). Four of the students also improved from pretest to posttest in reading comprehension with scores ranging from 63–100% on the posttest measure (1 student below 75% on the posttest).

Mendelsohn (1995) investigated the effects of listening strategies instruction on normal and poor listeners' comprehension. Two experiments are reported. Four text comprehension strategies, question generation, summarizing, clarification, and predicting were taught through direct instruction and reciprocal teaching. Dependent variables were experimenter-developed strategic reading and listening tests, and standardized reading and listening comprehension tests. In the first experiment the subjects were 9 to 11-year-old poor readers from special schools for children with learning disabilities. In this experiment, the intervention program's texts and strategy instructions were presented in listening settings only. The subjects in the second experiment were 10-year-old children from regular elementary schools and 9 to 11-year-old children from special schools. They were also poor readers but their decoding performance was not as poor as in the subjects in experiment 1. In experiment 2, the intervention program involved text presentations in alternating reading and listening lessons. Although in general, normal listeners performed better on all comprehension tests than poor listeners, there were no differential program effects for the two listening levels. Clear effects of both

programs were found on strategic reading and listening tests administered directly after the interventions. In the first experiment, maintenance test performance showed prolonged program benefits, whereas in the second experiment these maintenance effects were blurred by unexpected gains of the control groups, especially from regular schools.

Aarnoutse (1997) investigated the effectiveness of teaching reading comprehension strategies to very poor decoders in a listening situation. The subjects, 95 students from 6 special schools for children with learning disabilities, were chosen based on their very low scores on a decoding test, low scores on a reading comprehension test, and low or average scores on a listening comprehension test. The subjects were administered pretests, posttests, and retention tests. The 48 students in the experimental group were instructed in a listening program consisting of 20 lessons of 30 minutes each. The 47 students in the control group attended regular reading lessons, which did not contain comprehension strategy instruction. Results indicated that students trained by the program performed better during the posttest on the strategic listening and reading tests than the control group, and the better performance was maintained on the strategy retention tests (3 months after the posttest).

In a synthesis of research on metacognition, Collins, Dickson, Simmons, and Kameenui (1998) identified a body of research indicating that individuals with reading disabilities can learn to become effective and active readers through instruction aimed at increasing such metacognitive skills as self-regulation. Based on their synthesis of research, they recommended that it is crucial for adult literacy programs to incorporate the direct teaching of reading strategies in a way that helps adults with learning disabilities apply strategies to meet their specific reading needs.

Bryant, Vaughn, Linan-Thompson, Ugel, and Hamff (2000) reported using collaborative strategic reading as part of a multi component reading intervention strategy with students with

reading disabilities, low-achieving students, and average-achieving students in the middle years and found that all students' reading outcomes (i.e., word identification, fluency, and comprehension) increased significantly as a result of the intervention although a subgroup of very poor readers made little progress. Moreover, teachers reported that the percentage of their students who passed high-stakes tests increased from the previous year as a result of their participation in the intervention

Jitendra, Hoppes, and Xin (2000) taught middle-school students with disabilities a main idea identification strategy either with or without a monitoring component. Students in the monitoring group outperformed those in the control group in both near and far measures of reading comprehension.

Burchard and Swerdzewski's (2009) study of a postsecondary strategic learning course, including students with and without disabilities, demonstrated that students who participated in the course made statistically significant gains in metacognitive regulation and metacognitive awareness from the beginning to the end of the course. Course participants made greater gains in metacognitive regulation than did students in the general population at the university. This study also revealed that gains by students with disabilities were not different from gains made by students without disabilities, suggesting that students with disabilities benefit just as much as students without disabilities from participation in learning strategies courses.

Crabtree, Alber-Morgan, and Konrad (2010) used a multiple baseline across participants design to examine the effects of self-monitoring and active responding on the reading comprehension of three high school seniors with learning disabilities and significant attention problems. The self-monitoring intervention required the participants to read a story and stop reading at three pre-determined places in the text. At each stopping point, the participants used a form to record the answers to five questions

**focusing on narrative story elements (e.g., Who are the main characters? What is the setting?). Reading comprehension was measured by (a) number of story facts the participants were able to recall and (b) number of correct responses on a 10-item reading comprehension quiz. Findings demonstrated a functional relation between the self-monitoring intervention and reading comprehension performance.**

**In short, it has been demonstrated that when students with learning disabilities are taught language learning strategies and are given ample opportunities to use them, they improve in their ability to process information, which in turn improves their comprehension and production of the language. However, it is a known fact that different language skills involve varied processes and need different learning strategies. Therefore, the remaining chapters of this book will address the strategies related to major language skills, namely, (1) oral communication (2) reading comprehension and (3) writing.**

# **Chapter Three**

## **Teaching Communication Strategies to Students with Oral Communication Disabilities**

### **3.0. Introduction**

The primary aim of teaching and learning English as a foreign language is to develop students' communication skills because these skills are necessary in school and society. In the globalization era, English has become one of the most important languages of communication in the world. As Lewis (2011) puts it, "In today's world where a high percentage of students need or will need to be able to speak English outside the classroom, there is an absolute necessity to develop communicative competence as an integral part of an effective EFL syllabus" (p. 54). In school, oral communication skills are the bridge to literacy because they form the basis for literacy development at the beginning-level. Students cannot write what they cannot say. Oral language is a precursor to written language even if we do not write exactly the way we speak (Williams and Roberts, 2011). Moreover, both teacher-student and student-student interactions are important sources for EFL learning in the classroom. Through such interactions, input can be made comprehensible and meaning can be made clearer. Most importantly, communication makes language teaching more thoughtful, involves students in thinking and turns the language classroom into a community of thinkers. Therefore, it can develop students' higher order thinking skills. As Logan (2007) states, "Communication facilitates thinking and thinking facilitates communication. Dialogue and questions provoke new thoughts, new ideas, and new forms of language which require new vocabularies, and those new vocabularies then make new thoughts and insights possible" (p. 104). Therefore, in order for language learning and thinking to go hand-in-hand, students need to share their ideas with their teacher and other students.

**In the global society, English communication skills have become essential for attaining and performing many high-level jobs. They are amongst the most sought after skills by many employers. Many if not all employers rank communication skills among the most important skills for graduates to possess upon their entry in the workplace. Furthermore, a variety of reports identify oral communication skills as the most important workplace skills for employees (e.g., Bauer 1995; Howe 2003; Wayne and Mitchell 1992). Therefore, Benson (1983), among many others, regard communication skills as one of the most important courses, business schools can teach their students, to prepare them for management positions, and to increase their occupational success.**

**Communication skills are also central in developing informed citizens who are capable of participation in the global society and democratic deliberation. Through communication, citizens can share perspectives for the benefit of the society as a whole. In recognition of this, the European Parliament and the Council of the European Union (2006) recommend that lifelong learning skills should include communication in the mother tongue and communication in an international foreign language.**

**Moreover, communication is a vital part of all aspects of life. As Bakhtin (1984) states, life by its very nature is dialogic and we need to freely engage in open ended dialogue to fully engage with life and learning. He states:**

**To live means to participate in dialogue: to ask questions, to heed, to respond, to agree, and so forth. In this dialogue a person participates wholly and throughout his whole life: with his eyes, lips, hands, soul, spirit, with his whole body and deeds. He invests his entire self in discourse, and this discourse enters into the dialogic fabric of human life, into the world symposium. (p. 293)**



**In a nutshell, it is clear that communication skills are vital to student success within and beyond school. These skills have been shown to increase academic, occupational and personal success. Therefore, Freire (2000) claims that “without communication there can be no true education” (p. 92).**

**Despite the fact that the importance of communication skills within all facets of life has been well documented, many students with learning disabilities have trouble understanding others and expressing themselves normally in a meaningful way. More specifically, speech researchers and pathologists (e.g., David, 1975; Harris, 1994; Lahey, 1988) state that students with learning disabilities avoid speaking in class and experience difficulties with oral communication in the following areas:**

- Exchanging information on a wide variety of topics,**
- Requesting and giving clarification,**
- Expressing opinions, ideas, or feelings adequately on everyday topics,**
- Telling a story or talking about an incident in sequence;**
- Interacting with peers,**
- Responding to requests and open-ended questions,**
- Requesting and giving clarification,**
- Repairing breakdowns during interaction,**
- Using turn taking appropriately,**
- Keeping a conversation going,**
- Using appropriate eye contact,**
- Comprehending spoken language,**
- Expressing understanding.**

**In the Egyptian context, the oral communication difficulties, faced by struggling EFL students particularly those with communication disabilities, are due to two causes. The first cause is that teachers always view students as passive recipients of information. They do not interact with them; nor do they provide them with opportunities to interact with each other. That is, interaction is completely neglected in Egyptian classrooms. The second cause is that Egyptian students are always fearful of expressing their own opinions because teachers penalize them for their mistakes. Therefore, they prefer to be reticent to avoid humiliation, embarrassment, and criticism. This results in the vicious circle, “the less they speak, the less they improve their speaking skills, and the more they are afraid of speaking” (Jianing, 2007).**

**To help students who struggle with oral communication overcome their difficulties, many educators and researchers (e.g., Dornyei, 1995; Kongsom, 2009; Lewis, 2011; Nakatani, 2005; Rababah, 2002) recommend using communication strategies as an instructional intervention for them to develop their communication skills. Lewis (2011), for example, expresses this recommendation as follows:**

**If we are to help students develop their communicative competence, it is essential that we expose them to and draw their attention to a variety of communicative strategies, give them opportunities to apply the strategies in similar contexts and give them structured feedback on their performance. (p. 54)**

**In light of the above, the rest of this chapter will address communication strategies from all aspects. It will also detail a four-step model for teaching these strategies and review research on their impact on students with learning disabilities.**

### **3.1. Definition of communication strategies**

**There are a number of definitions for communication strategies. From different perspectives, linguists defined communication**

strategies in different ways. From a psycholinguistic perspective, communication strategies are defined as internal cognitive techniques used by a speaker to solve communication problems. In this respect, Corder (1981) defines communication strategies as systematic techniques employed by a speaker to express her/his meaning when faced with some difficulties. In a similar way, Færch and Kasper (1983b) define communication strategies as “potentially conscious plans for solving what to an individual presents itself as a problem in reaching a particular communicative goal” (p. 36). Likewise, Wenden (1986) defines communication strategies as techniques used by learners when there is a gap between their knowledge of the language and their communicative intent. Along the same line, Bialystok (1990) defines communication strategies as “strategies [that] are used only when a speaker perceives that there is a problem which may interrupt communication” (p. 3).

From a sociolinguistic perspective, communication strategies are defined as techniques that both speakers and listeners use to solve their problems during the course of communication. Tarone (1980), for example, defines communication strategies as “mutual attempts of two interlocutors to agree on a meaning in situations where the requisite meaning structures do not seem to be shared” (p. 420). This sociolinguistic view suggests that communication strategies are not unique to speakers and that both speakers and listeners mutually use communication strategies to solve problems while negotiating for meaning. As Kraat (1985) states, “What is said or done by a ‘speaker’ at any point in an interaction is often the result of what was said and done by both partners in earlier segments of that exchange. That, in turn, influences the subsequent behaviors that occur” (p. 21). Moreover, the listener’s verbal and non-verbal behaviors also influence the speaker’s behavior at any point in an interaction. For example, the

listener's non-verbal behaviors (e.g., eye-gaze, body shifts, puzzled facial expressions, head shakes) make the speaker "shift style as he or she perceives the 'listener' to be reacting badly to a request; or become more explicit as he or she sees a puzzled look appear; or shift topic or begin to terminate the conversation perceiving that the partner is bored or inattentive" (ibid., p. 135). The sociolinguistic view also suggests that communication strategies can occur in situations where problems are not involved and can serve as non-problem-solving strategies to enhance the effectiveness of communication, in that speakers can employ these strategies to clarify or elaborate on the intended message (Canale, 1983).

From a psycho-social perspective, a broader definition of communication strategies was proposed by some linguists (e.g., Chuanchaisit and Prapphal, 2009; Dornyei and Scott, 1997; Malasit and Sarobol, 2013) who believe that a speaker does not only cooperate with his or her interlocutor to solve communication problems, but also finds a solution without the help of others and that communication requires the speaker to use inter- and intra- individual communication strategies.

It is clear then that there is no universally accepted definition of communication strategies because these definitions, as mentioned before, are derived from different theoretical perspectives. The psycholinguistic perspective views communication strategies as individual or cognitive processes for overcoming communication barriers, and neglects the role of the partner despite the fact that "language is [...] a living organism created by both speaker and hearer" (Tarone, 1981, p. 288) and that communication strategies and negotiation of meaning cannot occur in isolation from each other. In contrast, sociolinguists view communication strategies as bi-directional techniques between at least two partners, who mutually influence each other in a reactive and interactive way (Kraat, 1985). From a psycho-social perspective, a speaker does not only

cooperate with his or her interlocutor to solve communication problems, but also finds a solution without the help of others. This standpoint integrates the psycholinguistic and sociolinguistic perspectives in an attempt to overcome the limitations of both.

## **3.2. Classification of communication strategies**

Many different taxonomies of communication strategies have been suggested over years (e.g. Bialystok, 1983; Corder, 1983; Færch and Kasper, 1983a; Poulisse, 1987; Tarone, 1983). Some of these classifications have been organized around various theories, while others have been organized around various research purposes. This section presents some of these taxonomies in a chronological order.

From a psycholinguistic perspective, Færch and Kasper (1983b) classified communication strategies into two types: achievement strategies and reduction strategies. The former set of strategies allows the learner to have an alternative plan to reach an original goal using available resources. This set consists of compensatory strategies and retrieval strategies. The compensatory strategies include code switching, interlingual transfer, interlanguage-based strategies, and nonlinguistic strategies. Retrieval strategies are used when the learner has difficulties in retrieving specific interlanguage items. The latter set of strategies is used by the learner to avoid solving a communication problem and to allow her/him to give up conveying an original message. This set consists of formal reduction strategies (e.g., using a reduced system to avoid producing non-fluent or incorrect utterances) and function reduction strategies (e.g., giving up a message or avoiding a specific topic).

In her book, *Communication strategies: A psychological analysis of second-language use*, Bialystok (1990, pp. 132-134) developed a taxonomy of communication strategies that consists of analysis- and control-based strategies. The analysis-based

strategies imply the manipulation of the intended concept to “convey the structure of the intended concept by making explicit the relational defining features” (ibid:133). The control-based strategies, on the other hand, imply the manipulation of form while keeping the intention constant. These two types of strategies are further described below.

1. **Analysis-based strategies are attempts to convey the structure of the intended concept by making explicit the relational defining features. These strategies include:**
  - a. **Circumlocution,**
  - b. **Paraphrase,**
  - c. **Transliteration,**
  - d. **Word coinage,**
  - e. **Mime (i.e., using a nonverbal behavior in place of a lexical item).**
2. **Control-based strategies are the uses of a representational system that is possible to convey and that makes explicit information relevant to the identity of the intended concept. These strategies include:**
  - a. **Language switch (i.e., using the native language term),**
  - b. **Ostensive definition (i.e., pointing to real objects),**
  - c. **Appeal for help (i.e., asking for the correct item),**
  - d. **Mime.**

From a psycho-social perspective, Dornyei and Scott (1997, p. 197) classified communication strategies used by both the speaker and the listener. Their taxonomy comprises three main categories. These categories, along with sample strategies from the fifty-nine communication strategies identified by them, are displayed in Figure 3.1.

**Figure 3.1: Dornyei and Scott's classification of communication strategies (Dornyei and Scott, 1997, p. 197)**

Categories	Sample strategies
<p><b>Direct Strategies</b></p>	<ul style="list-style-type: none"> <li>• <b>Message reduction,</b></li> <li>• <b>Circumlocution,</b></li> <li>• <b>Approximation,</b></li> <li>• <b>Code-switching,</b></li> <li>• <b>Mime,</b></li> <li>• <b>Self-rephrasing,</b></li> <li>• <b>Self-repair,</b></li> <li>• <b>Other-repair: For politeness' sake, other-repairs are often phrased as confirmation requests in which the trigger is changed, using <i>oh you mean</i>.</b></li> </ul>
<p><b>Interactional Strategies</b></p>	<ul style="list-style-type: none"> <li>• <b>Appeals for help,</b></li> <li>• <b>Asking questions to check that the interlocutor can follow you,</b></li> <li>• <b>Asking for repetition,</b></li> <li>• <b>Asking for clarification,</b></li> <li>• <b>Asking for confirmation,</b></li> <li>• <b>Interpretive summary,</b></li> <li>• <b>Repairing the response of the interlocutor,</b></li> <li>• <b>Rephrasing the response of the interlocutor,</b></li> <li>• <b>Expanding the response of the interlocutor,</b></li> <li>• <b>Confirming the response of the interlocutor,</b></li> <li>• <b>Rejecting the response of the interlocutor.</b></li> </ul>

(Figure 3.1 Continued)

Categories	Sample strategies
Indirect Strategies	<ul style="list-style-type: none"><li>• Use of fillers,</li><li>• Repeating a word or a string or words immediately after they were said,</li><li>• Repeating something the interlocutor said to gain time,</li><li>• Use of verbal and non-verbal strategy markers to signal that the word or structure does not carry the intended meaning perfectly in the L2 code,</li><li>• Self-confirmation,</li><li>• Feigning understanding.</li></ul>

In compliance with the psycholinguistic perspective, Bygate (2001) identified two main categories of communication strategies: achievement strategies and reduction strategies. The following is a brief description of these two categories:

**(1) Achievement strategies:**

Strategies in this category are grouped into the following subcategories:

- (a) Guessing strategies, e.g. borrowing or foreignizing a mother-tongue word, literal translation and coining or inventing a word,
- (b) Paraphrasing strategies, e.g. circumlocuting around a word when we don't know the exact word,
- (c) Cooperative strategies, e.g. signaling to the interlocutor for help.

**(2) Reduction strategies:**

Strategies in this category are grouped into the following subcategories:

- (a) Avoidance strategies, e.g. changing one's message to avoid using certain language or to make it more manageable,



- (b) Compensatory strategies, e.g. organizing one's message in order to buy thinking time.**

**In line with the psycho-social perspective, Nakatani (2006) developed an oral communication strategy inventory (OCSI) which consists of two parts. The first part comprises eight categories of communication strategies for coping with speaking problems, and the second part comprises seven categories of communication strategies for coping with listening problems. The following is a list of these strategies (ibid, pp. 155-157):**

**(1) Strategies for coping with speaking problems**

- 1.1. Social-affective strategies,**
- 1.2. Fluency-oriented strategies,**
- 1.3. Negotiation for meaning while speaking strategies are relevant to the participants' attempts to negotiate with their interlocutors,**
- 1.4. Accuracy-oriented strategies,**
- 1.5. Message reduction and alteration strategies,**
- 1.6. Nonverbal strategies,**
- 1.7. Message abandonment strategies,**
- 1.8. Thinking in the foreign language strategies.**

**(2) Strategies for coping with listening problems**

- 2.1. Meaning-negotiation strategies,**
- 2.2. Fluency-maintaining strategies,**
- 2.3. Scanning strategies,**
- 2.4. Getting-the-gist strategies,**
- 2.5. Nonverbal strategies,**

## 2.6. Affective strategies,

## 2.7. Word-oriented strategies.

From a sociolinguistic perspective, Khamwan (2007) classified communication strategies into four types. These four types, along with their functions and examples of language, are displayed in Figure 3.2 below.

**Figure 3.2: Khamwan's classification of interactional strategies (pp. 16-17)**

Strategies	Functions	Examples of language
1. Appeals for help	The learner asks for aid by asking an explicit question concerning a specific gap in one's understanding.	<ul style="list-style-type: none"><li>- How do you say...?</li><li>- What do you call... in English?</li><li>- Could you tell me what is... called?</li><li>-What does the word mean?</li></ul>
2. Repetition requests	The learner uses them when not hearing or understanding something properly.	<ul style="list-style-type: none"><li>- Pardon?</li><li>- Could you say that again, please?</li><li>- Again, please?</li><li>- Again, please</li><li>- What?</li><li>- Excuse me?</li></ul>

(Figure 3.2 Continued)

Strategies	Functions	Examples of language
3. Clarification requests	The learner requests the explanation of an unclear point.	<ul style="list-style-type: none"><li>- What do you mean by...?</li><li>- Could you explain to me, what is...?</li><li>- I don't understand__.</li><li>- I'm not sure what you mean by saying "_____".</li><li>- I'm not following you.</li><li>- It's not clear enough yet.</li><li>- Could you make that clearer, please?</li><li>- Could you tell me more?</li></ul>
4. Comprehension checks	The learner asks questions to check if understanding is correct.	<ul style="list-style-type: none"><li>- Am I correct?</li><li>- Did you say...?</li><li>- You said...?</li><li>- You mean...?</li></ul>

In consonance with the psycholinguistic perspective, Dobao and Martínez (2007, p. 90), developed a classification of communication strategies. This classification consists of two major types of strategies. These two types, along with their subcategories, are listed below.

## I. Avoidance Strategies

### (a) Topic avoidance,

- (b) Message abandonment,**
- (c) Semantic avoidance,**
- (d) Message reduction.**

## **II. Achievement Strategies**

### **(1) Paraphrase**

- (a) Approximation,**
- (b) Word coinage,**
- (c) Circumlocution.**

### **(2) Conscious transfer**

- (a) Borrowing,**
- (b) Language switch.**

### **(3) Appeal for assistance**

### **(4) Mime**

**In conformity with the sociolinguistic perspective, Douglas (2007, p. 332) developed a very simple classification of communication strategies. This classification consists of nine strategies. These strategies are:**

- (1) Asking for clarification (e.g., what?),**
- (2) Asking someone to repeat something (e.g., huh? Excuse me?),**
- (3) Using fillers (e.g., uh, I mean, well,) in order to gain time to process,**
- (4) Using conversation maintenance cues (e.g., uh-huh, right, yeah, okay, hm),**

- (5) Getting someone's attention (e.g., hey, Say, So),**
- (6) Using paraphrases for structures one can't produce,**
- (7) Appealing for assistance from the interlocutor (to get a word or phrase, for example),**
- (8) Using formulaic expressions (at the survival stage) (e.g., how much does \_\_\_\_\_ cost? How do you get to the \_\_\_?),**
- (9) Using mime and nonverbal expressions to convey meaning.**

**In agreement with the psycho-social perspective, Chuanchaisit and Prapphal (2009, pp. 102-103) categorized communication strategies into two major types: (1) risk-taking strategies, and (2) risk-avoidance strategies. The former set of strategies refers to strategies speakers use to expand their linguistic resources to achieve communicative goals. These strategies include:**

- (1) Social-affective strategies for dealing with emotions and attitudes,**
- (2) Fluency-oriented strategies emphasizing speech clarity and pronunciation,**
- (3) Accuracy-oriented strategies for paying attention to forms of speech,**
- (4) Non-verbal strategies such as giving hints by using gestures and facial expression,**
- (5) Help-seeking strategies such as asking for repetition, clarification or confirmation,**
- (6) Circumlocution strategies for paraphrasing or describing the properties of target objects.**

**The latter set of strategies--risk-avoidance strategies--refers to strategies speakers use to adjust the message to match their linguistic resources. These strategies include:**

- (1) Message abandonment strategies for leaving a message unfinished,**
- (2) Message reduction and alteration strategies to allow the substitution of familiar words,**
- (3) Time-gaining strategies, consisting of gambits or fillers, to keep the communication channel open and maintain discourse in times of difficulty.**

**In line with the sociolinguistic perspective, Nguyet and Mai (2012) classified communication strategies into four types. These four types are:**

- (1) Checking for comprehension,**
- (2) Confirming,**
- (3) Asking for clarification,**
- (4) Using fillers/hesitation devices.**

**In accordance with the psycho-social perspective, Malasit and Sarobol (2013, p. 805) developed a taxonomy of communication strategies that consists of two major types of strategies: (1) avoidance strategies and (2) compensatory strategies. The following is a brief description of these strategies along with their subcategories (See Figure 3.3).**

**Figure 3.3: Malasit and Sarobol's taxonomy of communication strategies (p. 805)**

**1. Avoidance strategies**

**1.1. Topic avoidance,**

**1.2. Message abandonment.**

**2. Compensatory strategies**

**(Figure 3.3 Continued)**

## **2.1. Intra-actional strategies**

- 2.1.1. Word coinage: Making up a non-existing new word,**
- 2.1.2. Code-switching: Switching to L1 without bothering to translate,**
- 2.1.3. Foreignizing: Adjusting L1 to L2 phonologically and/or morphologically,**
- 2.1.4. Use of non-linguistic means: Replacing a word with non-verbal cues,**
- 2.1.5. Self-repair: Making self -correction of one's own speech,**
- 2.1.6. Mumbling with inaudible voice,**
- 2.1.7. Use of all-purpose words to extend a general, empty item to the exact word,**
- 2.1.8. Approximation: Substituting the L2 term with the item which shares the same meaning,**
- 2.1.9. Circumlocution: Describing the properties of the object instead of the exact target item,**
- 2.1.10. Literal translation: Translating word for word from L1 to L2,**
- 2.1.11. Use of fillers/hesitation devices to gain time to think,**
- 2.1.12. Self-repetition: Repeating words or phrases of one's own speech,**
- 2.1.13. Other-repetition: Repeating something the interlocutor said to gain time,**
- 2.1.14. Omission: Leaving a gap when not knowing a word or continuing as if it was understandable.**

## **2.2. Inter-actional strategies**

- 2.2.1. Asking for repetition when having a comprehension difficulty,**
- 2.2.2. Appeal for help: Requesting direct or indirect help from the interlocutor,**
- 2.2.3. Clarification request: Asking for (more) explanation to solve a comprehension difficulty,**
- 2.2.4. Asking for confirmation: Requesting a confirmation that something is understood correctly,**
- 2.2.5. Comprehension check: Checking the interlocutor's understanding,**
- 2.2.6. Expressing non-understanding to show one's own inability to understand messages.**

**In summary, it must be noted that there is no consensus on the classification of communication strategies because classifications as shown before are organized around various theoretical perspectives and various research purposes. However, Bialystok (1990) believes that**

**the variety of taxonomies proposed in the literature differ primarily in terminology and overall categorizing principle rather than in the substance of the specific strategies. If we ignore, then, differences in the structure of the taxonomies by abolishing the various overall categories, then a core group of specific strategies that appear consistently across the taxonomies clearly emerges. (p. 61)**

### **3.3. Benefits of communication strategies**

**The benefits of communication strategies are many and varied. First and foremost, these strategies are important for the development of strategic competence which is an important component of communicative competence. As Savignon (1983) puts it, “The inclusion of strategic competence as a component of communicative competence at all levels is important because it demonstrates that regardless of experience and level of proficiency one never knows all a language. The ability to cope within limitations is an ever present component of communicative competence” (p. 46). Tarone (1984) also argues that one of the aims of L2 teaching should be the development of the student’s use of communication strategies as a way of enhancing their communicative competence. Along the same line, Dornyei and Thurrell (1991) refers to the crucial importance of strategic competence for successful communication in the following way:**

**Strategic competence is relevant to both L1 and L2, since communication breakdowns occur and must be**



overcome not only in a foreign language but in one's mother tongue as well. However, since strategic competence involves strategies to be used when communication is difficult, it is of crucial importance for foreign language learners. A lack of strategic competence may account for situations when students with a firm knowledge of grammar and a wide range of vocabulary get stuck and are unable to carry out their communicative intent. At oral language exams such students may even fail, and their teachers often cannot comprehend how that could happen to their 'best students'. On the other hand, there are learners who can communicate successfully with only one hundred words--they rely almost entirely on their strategic competence. (p.17)

Dornyei and Scott (1997) also conceive communication strategies to be "the key units in a general description of problem-management in L2 communication" (p. 179). Wagner and Firth (1997) echo this point by stating that communication strategies are a very prominent element in speech production and natural discourse (p. 342). Specifically, Rababah (2002) asserts that communication strategies are essential for developing students' strategic competence in the following way:

All teachers and learners need to understand that successful language learning is not only a matter of developing grammatical competence, sociolinguistic competence and semantic competence, but also strategic competence which involves the use of CSs and their role in transmitting and comprehending messages successfully. (p. 10)

In support of the benefit that teaching communication strategies can enhance students' strategic competence, Dornyei (1995), Nakatani (2010) and Rabab'ah (2015) found that communication strategies instruction improved students' oral communicative ability and strategic competence.

Furthermore, communication strategies can “develop linguistic and sociolinguistic competence in the target language” (Faerch and Kasper, 1983b, p. 67) because they “encourage risk-taking and individual initiative and this is certainly a step towards linguistic and cognitive autonomy” (Mariani, 1994). They also serve as an excellent means for less proficient learners to maintain interaction, thus providing them with opportunities to receive more input of the target language, which can in turn develop their conversational ability. Faucette (2001) puts this benefit in the following way:

If learners soon give up without achievement or interactive strategies at their disposal, then it is unlikely they will develop their conversational ability. Through CS [Communication Strategies] use, the channel will remain open. Hence, learners receive more input, can stay in the conversation, and develop their ability. Communication strategies are the means by which learners can act on Hatch’s (1978) advice that “Finally, and most important, the learner should be taught not to give up. (p. 6)

In addition to keeping a conversation going and ensuring more input for students, de Quesada (2009) adds that communication strategies are also an important vehicle that produces pushed output, and this can in turn develop communicative ability, foster language acquisition and increase fluency and ability to manage conversations more effectively.

Besides, communication strategies are very important for enhancing students’ self-confidence and building their security because they help them overcome their communication barriers and allow them to maneuver in times of difficulty (Dornyei, 1995). This in turn motivates them to communicate in the foreign language and to remain in the conversation to achieve their communicative goals, rather than giving up their messages. In support of this, some researchers (e.g., Dornyei,

1995; Le, 2006; Nakatani, 2005; Kongsom, 2009) found that communication strategies instruction in the classroom helped students to communicate more and enhanced their confidence in speaking in English.

Moreover, communication strategies can develop students' higher-order thinking skills as they allow them to exchange thoughts. This in turn broadens their perspectives, sharpens their own thoughts, turns the language classroom into a community of thinkers and develops their oral language skills.

Over and above, communication strategies bridge the gap between classroom and real-life communication and help students to overcome their communication problems in real life situations. If students lack these strategies, they will not be able to solve problems during face-to-face interaction; and as a result, they will avoid such interaction. Mariani (1994) expresses this benefit in the following way:

Communication strategies train learners in the flexibility they need to cope with the unexpected and the unpredictable. At the same time, they help students get used to the non-exact communication, which is perhaps the real nature of all communication. In this way, they help to bridge the gap between the classroom and the outside reality, between formal and informal learning.

Finally, communication strategies are particularly useful for students with language learning disabilities who experience communication difficulties on a regular basis. This is simply because these strategies: (a) provide them with an efficient tool for dealing with knowledge gaps emerging in talk exchanges, thus affording them a sense of security in the language and extra room to maneuver in times of difficulty and (b) increase their

confidence to communicate in English (Doqaruni and Yaqubi, 2011). In support of this, Lam (2010) found that low-proficiency students did benefit from teaching communication strategies: “(a) reporting consistent increases in their frequency and variety of use of the whole range of target strategies, using consistently more resourcing to help them with ideas and language, and demonstrating enhanced ability to reflect on and evaluate their performance; and (b) making greater improvements, especially in the English score, in group discussion tasks than the high-proficiency students” (p. 23-24).

### **3.4. A model for teaching communication strategies to students with communication disabilities**

Many communication scholars and researchers (e.g., Dornyei, 1995; Dornyei and Thurrell, 1991; Manchón, 1988; Tarone, 1984) agree that students with oral communication disabilities should be trained to be effective communicators and that effective communication strategies need to be taught to those students to improve their communication skills. They further agree that if students are not taught effective communication strategies, they will rely on the strategies that do not work well, such as borrowing from L1 and avoidance strategies. Therefore, the author developed a model for teaching communication strategies to students with oral communication disabilities. This model is based on Wood, Bruner, and Ross's concept of scaffolding, Long's interaction hypothesis and the social cognitive theory. That is, the gradual release of responsibility from the teacher to the student lies at the heart of this model. To make this happen, the model proceeds through these four steps: (1) direct instruction of communication strategies, (2) application of communication strategies in teacher-student interaction, (3) application of communication strategies in student-student interaction, and (4) self-assessment. These four steps are discussed in detail in the next sections.

### **3.4.1. Direct instruction of communication strategies**

**In this step, the teacher raises students' awareness of one or more of the communication strategies at a time over a semester, school year, or course. S/he makes them aware of how, when, and why this/these strategy/ies are used to facilitate oral communication. S/he also provides students with the necessary words and expressions of this/these strategy/ies. Finally, s/he involves students in observing a video of an authentic conversation, and gets them to identify, categorize, and evaluate the strategy/ies explained to them before and used by interlocutors in this conversation. In support of this step, Oxford (1990) states that “[r]esearch shows that strategy training which fully informs the learner (by indicating why the strategy is useful, how it can be transferred to different tasks, and how learners can evaluate the success of this strategy) is more successful than training that does not” (p. 207).**

### **3.4.2. Application of communication strategies in teacher-student interaction**

**Teacher-student interaction is a two-way process in which the teacher and the students participate in oral exchanges. It involves, according to Ellis (1990), not only authentic exchanges but also every oral exchange that occurs in the classroom, including those that arise in the course of formal drilling. This type of interaction is based on the concept of scaffolding, introduced by Wood, Bruner and Ross (1976), within the student's zone of proximal development (ZPD). In this type of interaction the teacher interacts with students by using interactional patterns that elicit students' use of the communication strategies explained to them in step one. In other words, s/he supports students (within their ZPD) to develop their strategic competence through the questions s/he asks, the speech modifications s/he makes, and the way s/he reacts to student responses and mistakes. S/he also provides needed language to help them pre-empt communication**

**breakdowns and offers communication strategies to help them maintain and extend their turns. This in turn can make communication strategies meaningful and utilizable to the students.**

**Moreover, teacher-student interaction can indirectly contribute to the development of communication strategies because students can absorb these strategies through observation of the teacher's verbal behavior. During this type of interaction, students notice the gap between the strategies they use and the strategies used by the teacher. When they notice the gap and realize that their message is not understood as intended, or that the teacher is using a different strategy, they can modify their message and/or strategy accordingly. This in turn leads to the development of both the processes and outcomes of their interactions. As Hall and Verplaetse (2000) state, "It is in their interactions with each other that teachers and students work together to create the intellectual and practical activities that shape both the form and the content of the target language as well as the processes and outcomes of individual development" (p. 10).**

**More importantly, teacher-student interaction allows the teacher to continually and informally assess what students comprehend and express as well as the strategies they employ in expressing their own thoughts. This in turn allows the teacher to determine where scaffolding is needed to help students perfect their use of communication strategies. It also allows teachers to give feedback to the students to help them maintain interaction and expand their use of these strategies.**

**Furthermore, teacher-student interaction is extremely important for a positive relationship between students and teachers, which can in turn lead to better learning in general. In support of this benefit, many researchers (e.g., Christophel, 1990; Gorham, 1988; Kelley and Gorham, 1988; Rodriguez, Plax, and Kearney, 1996) found that teachers' verbal (e.g., giving**

praise, self-disclosure) and non-verbal (e.g., eye contact, facial expressions) immediacy behaviors could lessen the psychological distance between themselves and their students, leading to greater learning. This positive relationship may even have a mediating effect for students with developmental vulnerabilities and insecure maternal attachments. In some cases, high quality teacher-student interactions provided a “protective effect” for at-risk students in comparison to similar students who lacked these interactions (Baker, 2006, cited in Smart, 2009, p. 11). In addition, Savage (1998) found that students retained new information better when they interacted with the instructor by questioning the new information. He further found that when questions elicited higher cognitive processes students could retain 80% to 85% of new materials.

In sum, the teacher-student interaction plays a key role in supporting students in attaining a higher level of communication skills and strategies, which could be impossible if students work on their own. It also has a positive effect on students’ affective and cognitive outcomes. Moreover, it gives the instructor an opportunity to easily and quickly assess students’ communication skills and strategies. However, for the teacher-student interaction to harvest its own benefits, the teacher should regard students’ linguistic mistakes as a natural part of the learning process because students do not want to feel embarrassed in front of their classmates. “Above all, criticism is usually counter-productive” (Gipps, 1994, p. 39).

Despite the importance of teacher-student interaction in scaffolding students’ communication skills and strategies, the teacher should gradually diminish this scaffolding assistance as students begin to assume full control of the communication strategies. S/he should move from this step to the next which is student-student interaction, where students interact with each other in pairs or groups to achieve a clear communicative goal.

### **3.4.3. Application of communication strategies in student-student interaction**

**In this step, the teacher gives students opportunities to use the communication strategies in interactional activities to achieve an authentic communicative goal. In such interactional activities, students are responsible for selecting and implementing the most appropriate strategies for performing the activity. Meanwhile, the teacher acts as a facilitator, offering suggestions and encouragement while following and observing all of the interactions. s/he also diagnoses both strengths and weaknesses in students' communicative competence, including their communication strategies to (re)teach weak areas in the direct instruction step in the future.**

**Student-student interaction could play a key role in developing students' communication skills and strategies. In this respect, many applied linguists (e.g., Canale and Swain,1980; Ellis, 1999; Hatch, 1978; Krashen,1988; Long, 1985, 1996; Rivers, 2000) assert that this type of interaction is essential for developing the learner's communicative competence of which strategic competence is an important part because it secures the reception of comprehensible input and the production of meaningful output. It also provides opportunities for actual practice in the use of communication strategies which in turn improves the use of these strategies because learners learn to use communication strategies effectively through participating in communication activities where a real communicative goal has to be achieved. As students negotiate for meaning and try to produce comprehensible output, they use communication strategies to repair breakdowns and misunderstandings during the course of interaction. To name only a few, they ask for help, repetition, clarification and confirmation. They also use miming and nonverbal expressions to convey meaning and fillers to gain time to think. In this way, student-student interaction increases students' chances to use communication strategies**



**in real situations, which in turn develops their strategic competence. Students also receive feedback directly or indirectly from their partners on their communication strategies and language output and then modify the two based on this feedback.**

**In addition to allowing students to practice and apply communication strategies, student-student interaction also plays an important role in developing students' linguistic competence. Through interaction, students can absorb new grammatical forms, words, and expressions, thus expanding their language ability. In this regard, Hatch (1978) states, "One learns how to do conversation, one learns how to interact verbally, and out of this interaction syntactic structures are developed" (p. 404). In the same vein, Richards and Lockhart (1996) state:**

**Through interacting with other students in pairs or groups, students can be given the opportunity to draw on their linguistic resources in a nonthreatening situation and use them to complete different kinds of talks. Indeed, it is through this kind of interaction that researchers believe many aspects of both linguistic and communicative competence are developed. (p. 152)**

**In support of the notion that student-student interaction develops students' linguistic competence, Mackey (1999) found a link between interaction and grammatical development. She further concluded that "[o]ne of the features that facilitate language development is learner participation in the interaction" (p. 573).**

**Furthermore, student-student interaction is a tremendously important source, if not the most important, of language use for foreign learners. This is because it is difficult for those learners to use the foreign language outside the classroom and because this type of interaction increases the amount of each student's participation time and her/his chances to use the foreign language for purposes associated with foreign language acquisition.**

**This, in turn, leads to the development of linguistic and strategic competence. In support of this, Pica and Doughty (1985) found that**

**individual students appeared to have more opportunities to use the target language in group than in teacher-fronted activities, through either taking more turns or producing more samples of their interlanguage. Such opportunities may have had a positive effect on students' development of linguistic and strategic competence in giving them practice in hypothesizing about interlanguage structures which were still at variable levels of accuracy, or in enhancing their development of second language fluency. (p. 131)**

**Moreover, student-student interaction encourages students, especially introvert ones who are irresolute to talk in front of the whole class or teachers, to participate in communication activities using their available language skills. In this non-threatening atmosphere, students can speak freely and openly without being afraid of making mistakes. This, according to Dornyei (1995), encourages students to take risks and use communicative strategies.**

**The importance of student-student interaction is not confined to the language acquisition, but extends to the development of thought and problem-solving abilities as well. It makes language learning more thoughtful, involves students in thinking and turns the language classroom into a community of thinkers, and this in turn leads to the development of their higher order thinking skills. This benefit is in line with the Vygotskian perspective which views the development of language and thought as a result from social interaction and the growth of the student's mind as a product of interaction with other minds. The importance of social interaction in learning has also been recognized by social cognition theorists as necessary to the development of higher mental processes. In**

**student-student interaction, students exchange multiple perspectives, consider these perspectives and select the best one based on reasoning and evidence. This, in turn, extends and refines their thinking and decision-making capabilities, and sharpens their own thought. In support of this benefit, Greene and Land (2000) found that peer interaction developed reflective thinking and problem solving skills. Anderson, Howe, Soden, Halliday and Low (2001) also found that peer interaction developed students' critical thinking skills.**

**Additional advantages of student-student interaction include: developing students' self-confidence and social skills, establishing positive attitudes toward school, fostering motivation for learning, improving retention of information, valuing students' past experiences and respecting their abilities, creating a sense of learning community that reduces learners' isolation and anxiety, preparing students to be effective citizens in a democratic society, and promoting students' independence (Harmer, 2001; Johnston and Rogers, 2001).**

**To conclude, the value of student-student interaction for the development of students' communicative competence in general has been highlighted with communicative language teaching and with the advent of theories that emphasize the social nature of language learning. In support of the value of this type of interaction, Rivers (2000) states that "communication derives essentially from interaction" (p. xiii). Brown (2001) also states, "In the era of communicative language teaching, interaction is, in fact, the heart of communication: it is what communication is all about" (p. 165). Moreover, Strickland and Shanahan (2004) assert that "[o]ral language development is facilitated when children have many opportunities to use language in interactions with adults and with one another" (p. 76).**

#### **4.4. Self-assessment**

**In this step the teacher involves each student in assessing the quality of her/his oral performance in relation to the**

**communication strategies s/he employed during student-student interaction. This step helps each student to draw a profile of her/his lacks of communication skills and strategies. It also promotes the learner’s responsibility and independence, as Hunt, Gow, and Barnes (1989) claim, without learner self-assessment "there can be no real autonomy" (p. 207). Specifically self-assessment can help students to:**

- (1) identify their strengths and weaknesses in communication,**
  - (2) document their progress,**
  - (3) identify effective language learning strategies and materials,**
  - (4) become aware of the language learning contexts that work best for them,**
  - (5) establish goals for future independent learning.**
- (McNamara and Deane 1995, p. 17)**

**To make it easy for the student to self-assess her/his own communicative performance in relation to the communication strategies s/he has already used, the teacher should provide her/him with an assessment tool such as the one given in Figure 3.4 below.**

**Figure 3.4: A self-assessment tool of communication strategies**

<p><b>Name: -----, Date: -----.</b></p> <p><b>Topic of Interaction: -----.</b></p> <p>_____</p> <p><b>I used a repertoire of strategies to communicate with other members in my group.</b></p> <p style="text-align: center;"><b>Yes <input type="checkbox"/> No <input type="checkbox"/></b></p>
---

(Figure 3.4 Continued)

The strategies I used helped me communicate with other members in my group more easily and thoughtfully.

Yes  No

The communication strategies I found most useful were:

.....  
.....  
.....  
.....  
.....  
.....

The communication strategies I found difficult to use were:

.....  
.....  
.....  
.....  
.....  
.....

### **3.5. Research on teaching communication strategies to students with learning disabilities**

Many researchers studied communication strategies and their effect on students' oral communicative ability (e.g., Dornyei, 1995; Nakatani, 2010; Teng, 2012; Tian and Zhang, 2005). However, the author found that only one of these studies was conducted with students with learning disabilities. In this study, Cohen (2011) examined teacher-student verbal interaction in classrooms of high

**school students with specific learning difficulties (SpLDs) learning English as a foreign language. The aims of the study were twofold: (a) to examine teachers' interactional strategies when teaching a foreign language to those students and (b) to search for strategies which appeared to support and activate students' participation in language learning activities. The study was conducted in classrooms of low ability groups of high-school students over a period of four months. The classrooms were composed of students with SpLDs which affected their ability to acquire proper literacy skills in English as a foreign language and whose literacy and communication skills in English were therefore limited. The main sources of data were transcripts of observation notes and video-taped classroom interactions. The conceptual framework for analysis and interpretation of the data included a socio-cultural model of teacher-student interaction and examination of deviations from the traditional, restricted Initiation-Response-Feedback (IRF) classroom sequence. The results suggest that instructional strategies and the quality of teacher verbal interaction have a potential to open up and increase learning opportunities for SpLD students despite their limited literacy and communication skills.**

# **Chapter Four**

## **Teaching Reading Strategies to Students with Comprehension Disabilities**

### **4.0. Introduction**

**Reading is a process of constructing meaning from a written text. As Wixson and Peters (1984) define it, reading is "the process of constructing meaning through the dynamic interaction among the reader's existing knowledge, the information suggested by the written language, and the context of the reading situation" (p. 4). In the same vein, Durkin (1993) defines it as an "intentional thinking during which meaning is constructed through interactions between text and reader" (p. 5). Along the same line, Harris and Hodges (1995) define reading as "the construction of the meaning of a written text through a reciprocal interchange of ideas between the reader and the message in a particular text" (p. 39).**

**As indicated, the previously-mentioned definitions of reading have at their core the idea that reading is comprehension and without comprehension the reader is not truly reading, but following words on a page from left to right. As Trehearne (2015) states, "Comprehension is what reading is all about. Decoding without comprehension is simply word barking—being able to articulate the word correctly without understanding its meaning" (p. 423). The definitions of reading also have at their core the idea that comprehension results from the mental processes and the strategies the reader employs to interact with the text. Readers who are successful in understanding what they read use various**

strategies to construct meaning from the text and to repair misunderstanding. In contrast, struggling readers often lack these strategies and strictly focus on the decoding aspect of reading. This, in turn, makes them just “word callers” rather than readers because reading goes beyond decoding words. This problem is stated by Friend (2005), as cited in Pierangelo and Giuliani (2008), in the following way:

Reading comprehension refers to a student’s ability to understand what he or she is reading. Some students with reading comprehension difficulties are able to read a passage so fluently that you might assume they were highly proficient readers. However, when they are asked questions about what they have read, they have little or no understanding of the words. Students with this problem sometimes are referred to as word callers. (Friend, 2005, cited in Pierangelo and Giuliani, 2008)

Despite the fact that the essence of reading is comprehension and that comprehension is fundamental to success in education, most Egyptian students with and without learning disabilities face many difficulties in EFL reading comprehension. In support of this, El-Koumy (the author), found that approximately 70% of secondary school students without learning disabilities and more than 98% of students with learning disabilities at the secondary level in Egypt have reading comprehension difficulties in the following areas:

- Identifying the relationship of each sentence to its predecessor in the text,
- Identifying relationships between and among paragraphs in the text,
- Identifying the logical connection between ideas in the text,
- Inferring the author’s purpose for writing the text,
- Inferring ideas that are not explicitly stated in the text,



- **Inferring the author’s attitude, tone and bias within the text,**
- **Inferring the author’s assumptions that are not explicitly stated in the text,**
- **Identifying similarities and differences among ideas,**
- **Distinguishing relevant from irrelevant information**
- **Relating what is being read to background knowledge,**
- **Identifying the author’s viewpoint,**
- **Identifying relationships among ideas in the text,**
- **Comparing and contrasting the main ideas in two texts on the same topic.**

**Much of the literature suggests that a prominent cause of the reading comprehension difficulties for students with reading disabilities is their lack of appropriate comprehension strategies. Many reading scholars (e.g., Biancarosa and Snow, 2004; Bos and Anders, 1990; Fowler, 2003; Roberts, Torgesen, Boardman, and Scammacca, 2008) agree that students with learning disabilities who continue to struggle with reading comprehension after the primary grades lack reading comprehension strategies. Bos and Anders (1990) put this cause in the following way:**

**Students with learning disabilities face challenging reading and learning demands as they move beyond the primary grades. While many of these students continue to encounter difficulties with basic reading skills, moving into the intermediate and secondary grades means they also need to use a cadre of cognitive and metacognitive strategies for negotiating informational text. (p. 166)**

**In the same vein, Thompson (1993) asserts that problems in comprehension are a result of the lack of instruction in reading strategies and that students who lack adequate or effective comprehension strategies necessarily struggle to achieve comprehension. Likewise, Roberts, Torgesen, Boardman and**

Scammacca (2008) agree that poor readers cannot use reading comprehension strategies in order to make sense of what they read. They state:

**Reading well is a demanding task requiring coordination of a diverse set of skills. Good readers monitor their understanding by linking new information with prior learning and, when comprehension breaks down, by deploying appropriate repair strategies, like adjusting their reading rate or strategically rereading passages. Struggling readers, even those with adequate word-level skills and acceptable fluency, often fail to use these types of strategies, either because they do not monitor their comprehension or because they lack the necessary tools to identify and repair misunderstandings when they occur. (p 66)**

Research also showed that students with learning disabilities did not apply strategies to help themselves comprehend what they read (Englert et al., 2009; Englert and Thomas, 1987). More specifically, research showed that these students experienced serious difficulties in making inferences (Holmes, 1985), relating new information with background knowledge (Johnson, Graham, and Harris, 1997), predicting text ideas, clarifying, and summarizing (Mastropieri and Scruggs, 1997), guessing the meaning of difficult words from the context (Meng, 2002) and applying various strategies in different reading phases, before, during, and after reading (Gersten, Fuchs, Williams, and Baker, 2001; Mastropieri, Scruggs, Bakken, and Whedon, 1996). In addition, research showed that students with learning disabilities could not monitor their own comprehension (Bos, Anders, Filip, and Jaffe, 1989; Fowler, 2003; Wong, 1994) and had less metacognitive knowledge and weaker control of their reading comprehension processes than normal students (Baker and Brown, 1984; Garner, 1987; Hacker, 1998).

**What complicates the problem of students' lack of effective reading strategies in the Egyptian context is that EFL teachers themselves lack these strategies and are not prepared to teach them. The following quote from Kamil, Borman, Dole, Kral, Salinger, and Torgesen (2008) typically applies to the Egyptian context:**

**Most teachers lack the skills to provide direct and explicit comprehension strategy instruction. Most teacher education programs do not prepare preservice teachers to teach strategies. In addition, teachers may find it particularly challenging to model their own thinking by providing think aloud of how they use strategies as they read. Many teachers use various strategies automatically as they read and are not aware of how they use the strategies they are teaching. (p. 19)**

**Another probable cause of the poor reading comprehension of students with learning disabilities in the Egyptian context is that EFL teachers always focus on decoding skills, rather than comprehension. Therefore, Egyptian EFL students often do well with decoding but struggle with comprehension. In other words, they decode words individually, but they cannot make sense of entire paragraphs. In support of the notion that mere decoding does not lead to comprehension, Schoenbach, Greenleaf, Cziko, and Hurwitz (1999, cited in Herczog and Porter, 2010, p. 9) are of the opinion that mere decoding does not guarantee comprehension in the following way:**

**Most older students who struggle with reading do not have decoding problems; they struggle with comprehension. Consequently, these students do not need assistance with decoding. In fact, focusing on decoding skills with these students is counterproductive because it sends a message that reading is mainly about correct pronunciation, not understanding content. (p. 9)**

To help students with learning disabilities overcome their reading comprehension difficulties, many reading scholars (e.g., Bongratz, Bradley, Fisel, Crcutt, and Shoemaker, 2002; Cramer, Fate, and Lueders, 2001; Lysynchuk, Pressley, and Vye, 1990; Marchand-Martella and Martella, 2012) recommend comprehension strategies instruction to enable these students to select and use appropriate strategies and as such gain better understanding of what they read. It is also evident from the review of the previous research that the use of comprehension strategies as an instructional intervention improves the reading comprehension of students with learning disabilities. In their review and synthesis of the research on reading comprehension interventions for students with learning disabilities, Gersten and Baker (1999a) recommended that students with learning disabilities “need to learn an array of strategies to enhance their understanding of the narrative and expository material they read” (p. 5). They maintained that successful interventions teach students “multiple strategies with the goal of having them internalize the strategies” (loc. cit.). Likewise, in his meta-analysis of the reading comprehension interventions conducted between 1985 and 2005 for students with learning disabilities, Sencibaugh (2005) concludes:

Impressive gains in reading for students with learning disabilities are possible (Torgesen et al., 2001; Vaughn et al., 2002) especially if the instructional process utilizes strategy instruction to assist the students with organizing the material. As revealed in the results of this study, strategy instruction strongly impacts the reading comprehension of students with learning disabilities based on the notion that students with learning disabilities are inactive learners with metacognitive deficits (Deshler, Ellis, & Lenz, 1996); therefore, they benefit greatly from training in such strategies as activating prior knowledge and organizing and summarizing text (Mastropieri & Scruggs, 1997). (p. 11)

Moreover, in her review of the reading comprehension interventions for students with learning/reading disabilities between 2006 and 2011, Scott, (2012) concludes that “extensive research has shown large effect sizes on reading comprehension of students with learning disabilities and reading difficulties when the students were given explicit instruction in comprehension strategies” (p. 25). Over and above, research on text comprehension demonstrates that students with learning disabilities can be taught to use comprehension strategies (e.g., Bakken, Mastropieri, and Scruggs, 1997; Englert and Mariage, 1991; Gardill and Jitendra, 1999; Johnson, Graham, and Harris, 1997; Nelson, Smith, and Dodd, 1992). Therefore, the present chapter will deal with reading strategies from all aspects. It will also detail a four-step model for teaching these strategies and review research on their impact on the reading comprehension of students with learning difficulties.

## **4.1. Definition of reading comprehension strategies**

Reading comprehension strategies are specific procedures used by readers to help them make sense of written texts. Pani (2004) defines these strategies as “the mental operations involved when readers approach a text effectively to make sense of what they read”. For Kamil et al. (2008), “Comprehension strategies are routines and procedures that readers use to help them make sense of texts” (p. 16). Likewise, Pilonieta (2010) defines comprehension strategies as the “conscious, deliberate, and flexible plans readers use and adjust with a variety of texts to accomplish specific goals” (p. 152). According to Trehearne (2015), “Comprehension strategies are conscious plans—sets of steps that good readers use to make sense of text when reading” (p. 446). Similarly, the Alabama Department of Education (2015) defines comprehension strategies as “specific actions that readers use as they attempt to

make sense of text” (p. 68). In essence, reading strategies are conscious procedures that help readers to comprehend what they read and to repair breakdowns in comprehension. Thus, reading comprehension strategies are a means to an end rather than the end itself.

## **4.2. Classification of reading comprehension strategies**

Reading comprehension strategies have been classified differently by different reading scholars. Some scholars (e.g., Levin and Pressley, 1981; Palincsar and Brown, 1984; Paris, Lipson, and Wixson, 1983; Paris, Wasik, and Turner, 1991; Pressley, 2000; Vaughn and Linan-Thompson, 2004) classified reading strategies on the basis of the order they take place, i. e. pre-reading, while-reading and post-reading strategies. The pre-reading comprehension strategies include, but are not limited to, setting goals for reading, activating prior knowledge by thinking about what is already known about the topic, making predictions, previewing, asking questions based on the title of the text, and skimming. The while-reading strategies include, but are not limited to, guessing meaning of words from the context, identifying the main idea of a paragraph, identifying supporting details, visualizing, making connections among important ideas, resolving comprehension difficulties, underlining important portions of the passage, comprehension monitoring, clarification, making inferences, and note-taking. The post-reading strategies include, but are not limited to, summarizing, reviewing, elaborating, re-reading key points, and evaluating.

Some other reading scholars (e.g., Abbott, 2006, 2010; Eskey, 2005; Lee-Thompson, 2008; Rao, 2003) classified reading strategies on the basis of the bottom-up and top-down processing theories into two groups: bottom-up (local) strategies and top-down (global) strategies. “Bottom-up reading comprehension strategies are data-driven, whereas top-down strategies are

conceptually or hypothesis-driven” (Abbott, 2010, p. 15). The bottom-up strategies require readers to break down texts into their most basic elements of meaning. They include, but are not limited to, dividing unknown words into their component morphemes and analyzing each morpheme to identify the meaning of these words, analyzing sentences in order to determine what is happening in them and how they relate to neighboring sentences, scanning the text for specific details or explicitly stated information, vocalizing, rereading, and translating. In contrast, the top-down strategies are holistic and all require readers to combine and synthesize different pieces of information. They include, but are not limited to, predicting, previewing, planning, paraphrasing, using background knowledge to speculate beyond the text, hypothesizing, taking notes, formulating questions, summarizing, monitoring comprehension, identifying problems, and evaluating strategy use and performance

On the basis of the cognitive theory of learning, some other reading scholars (e.g., Aghaei and Pillaie, 2011; Fowler, 2003) classified reading strategies into two general categories: cognitive strategies and metacognitive strategies. The cognitive strategies include previewing, making predictions, translating, summarizing, linking with prior knowledge or experience, and guessing meaning from contexts; whereas the metacognitive strategies include self-regulation, planning, self-monitoring, and self-assessment.

On the basis of the socio- and psycho-cognitive theories of learning, some researchers (e.g., Fotovatian and Shokrpour, 2007; Zeynali, Zeynali, and Motlagh, 2015) incorporated the socio-affective strategies into their classification of the reading strategies. According to them, the socio-affective strategies represent a broad group that involves either interaction with another person or regulation of emotions, motivation and attitude toward reading. This category consists of strategies like cooperative reading, asking questions for clarification, and self-talk.

The difference in the previously mentioned categories of comprehension strategies is a result of the distinct frameworks that were used to classify these strategies. However, the previously mentioned categories can be complementary because students with and without reading disabilities need to apply various cognitive and metacognitive strategies before, during, and after reading. They also need a repertoire of strategies to read strategically with comprehension. Therefore, the next section will explore the literature around which strategies to include in this repertoire.

### **4.3. Reading comprehension strategies that work**

As cited in the previous section, the reading comprehension strategies are many; therefore, it is important here to decide what reading comprehension strategies to teach. In this respect, some reading scholars (e. g., Cunningham and Allington, 1994; Trehearne, 2015) identify reading comprehension strategies that are worth teaching on the basis of theoretical analyses of reading comprehension. Cunningham and Allington (1994), for example, suggest what they call “necessary strategies” that readers need to use when reading. These strategies are: calling up relevant background knowledge, predicting what will be learned and what will happen, making mental pictures, self-monitoring and self-correction, using fix-up strategies such as re-reading or asking for help, determining the most important ideas and events and seeing how they are related, questioning; drawing conclusions and making inferences, comparing and contrasting what is being read and what is known, figuring out unknown words and summarizing what has been read.

Along the same line, Hollas (2002) suggests that a strategic reader in the content areas employs seven reading strategies. These strategies are: (1) predicting, (2) visualizing, (3) connecting, (4) questioning, (5) clarifying, (6) summarizing and (7) evaluating. In the same vein, Trehearne (2015) recommends eight strategies that



work for reading comprehension. These strategies are (1) monitoring comprehension, (2) using mental imagery, (3) using visual representation of text, (4) using prior knowledge/predicting, (5) summarizing/retelling, (6) using text structure, (7) generating questions, and (8) answering questions.

Other reading scholars (e.g., Palincsar and Brown, 1984; Pressley, Johnson, Symons, McGoldrick, and Kurita, 1989; Pressley, Levin, and Ghatala, 1984; Swanson and De La Paz, 1998) identify reading comprehension strategies that work based on research evidence. According to these scholars effective strategies are those strategies supported by research evidence and only strategic procedures that enjoy clear scientific support should be recommended to teachers. They further emphasize that such recommended strategies must have proven their worth in studies that permit cause-and-effect conclusions. Swanson and De La Paz (1998), for example, point out that each recommended strategy should have been formally evaluated and found to be effective for improving learners' reading comprehension. They add that the compilation of the reading strategies should be inspired by contemporary reading research and recurrent strategies in explicit strategy instruction programs.

Based upon research-based evidence, Palincsar and Brown (1984) identified four important reading strategies for teaching reading comprehension to special needs students. These strategies are: predicting, summarizing, clarifying, and asking questions. The teaching of these four strategies is known as reciprocal teaching in the literature. They (Palincsar and Brown) conducted a series of studies in which they taught special education middle-school students to use these strategies over an extended period of time. These studies revealed that the teaching of this repertoire of strategies had beneficial effects on the reading performance of special needs students.

**In the same vein, Pressley, Johnson, Symons, McGoldrick, and Kurita (1989) surveyed and reviewed relevant experimental studies that demonstrated the potency of a range of reading comprehension strategies. They identified summarization, representational- and mnemonic-imagery, story grammar, question-generation, question-answering, prior-knowledge activation strategies and making inferences as being supported by substantial evidence base.**

**By the same token, based on an analysis of more than 200 published studies from the past two decades, the National Reading Panel (2000) found eight comprehension strategies that were most effective and most promising for instruction. These strategies are: comprehension monitoring, cooperative learning, graphic and semantic organizers, story mapping, question answering, question generation, summarizing, and multiple strategies. In addition to these strategies, the National Reading Panel found varying degrees of scientific research support for several additional strategies, including activating and using prior knowledge, and mental imagery and mnemonics.**

**Likewise, in their review of the effective practices for developing reading comprehension, Duke and Pearson (2002) identified six individual comprehension strategies that research suggests for developing reading comprehension. These strategies are prediction, think-aloud, text structure, visual representations, summarization, and questioning. Furthermore, in their review of the essential elements of fostering and teaching reading comprehension, Duke, Pearson, Strachanm, and Billman (2011) point out that the list of strategies that research indicated are worth teaching—that is, if taught, they improve reading comprehension--varies from one research review to another but often includes the following:**

- Setting purposes for reading,**
- Previewing and predicting,**
- Activating prior knowledge,**

- **Monitoring, clarifying, and fixing,**
- **Visualizing and creating visual representations,**
- **Drawing inferences,**
- **Self-questioning and thinking aloud,**
- **Summarizing and retelling. (p. 64)**

In essence, with the fact in mind that different terminologies are sometimes used for the same strategy, the author can say that reading scholars and reading researchers seem to agree to a great extent on the effective strategies that should be taught for improving reading comprehension.

#### **4.4. Benefits of reading comprehension strategies**

The importance of reading comprehension strategies is widely recognized in the literature. First and foremost, these strategies are necessary for meaningful learning and understanding from text to occur. As Alexander and Jetton (2000) point out, “Strategies are essential tools in learning. It is unfathomable to expect meaningful learning from text to occur without some evidence of strategic processing. Likewise, when readers employ strategies efficiently and effectively, these procedures are facilitative, promoting deeper and better understanding” (p. 295). Similarly, Thompson (2000) puts this benefit as follows:

Comprehension strategies are useful in helping students in the preparing, organizing, elaborating, rehearsing, and monitoring of text as it is being read. Student should be taught how to use comprehension strategies and typographical signals to understand the author's intended message. Teaching strategies will not only help students develop comprehension, but develop other attributes as skillful readers. (p. 6)

**In the same vein, Gooden (2012) asserts that “[i]nstruction in comprehension strategies helps children become flexible thinkers who can approach a variety of texts with a repertoire of strategies, thus helping them to better comprehend those texts” (p. 17). In support of this benefit, many studies (e.g., Baker and Brown, 1984; Bereiter and Bird, 1985; Pressley et al., 1989; Rosenshine and Meister, 1994; Rosenshine, Meister, and Chapman, 1996) showed that when readers received comprehension strategy instruction instead of conventional comprehension instruction, they improved significantly on reading comprehension measures. Various studies (e.g., Arabsolghar and Elkins, 2001; Dreyer, 1998; Kozminsky and Kozminsky, 2001) also showed a positive relationship between reading strategy use and reading comprehension.**

**In addition, the use of reading comprehension strategies helps students absorb grammar, sentence structure, and discourse structure as they occur in meaningful authentic contexts. Students thus gain a more complete picture of the ways in which the elements of reading work together to convey meaning. It is also argued that vocabulary is learned through context. Furthermore, comprehension strategies instruction can promote self-regulation in learners, foster independent reading, and lay the foundation for students to become lifelong readers, not simply school time readers. This in turn can positively influence their self-efficacy beliefs and encourage them to participate as thoughtfully literate members of our complex world.**

**Furthermore, reading comprehension strategies instruction is especially beneficial for students with learning disabilities as it enables them to become aware of their reading processes and offers avenues for improving their reading comprehension. Ruffin (2009) expresses this benefit in the following way:**

**Students with learning disabilities often experience deficits in comprehension; therefore, reading comprehension strategies are relevant. Reading without comprehension seems pointless and not reading strategically or employing a technique to monitor**

comprehension is likely to add frustration and anxiety to the reader causing significant difficulty with understanding in the reading process. Students with learning disabilities must find meaningful ways to complete the task of gaining understanding from written text, and reading comprehension strategies offer avenues for improving or increasing reading comprehension. (p. 24)

Likewise, Pilonieta (2010) argues that “[i]nstruction in comprehension strategies is particularly important for struggling readers as they are unlikely to discover these strategies on their own” (p. 152). In support of this benefit, many studies provided evidence that struggling readers improved their reading skills through training in reading comprehension strategies (For a review of these studies, see sections 4.6.4. and 4.7.6. of this chapter).

#### **4.5. A model for teaching reading comprehension strategies to students with reading disabilities**

Reading comprehension strategies do not seem to come naturally or easily to students, particularly those with learning disabilities. They are “neither easy nor automatic” (Pintrich, 1999, p. 7). Therefore, learners need the teacher’s support, with a gradual reduction in the amount of this support. Eventually this support should be removed when they are able to apply the strategies without assistance. In this light, the author developed a four-step model for teaching and applying comprehension strategies on the basis of Wood et al.’s concept of scaffolding within Vygotsky’s zone of proximal development. These steps are: (1) teacher modeling, (2) peer modeling, (3) independent use of the strategies in action, and (4) self-assessment. These four steps are discussed in detail in the next sections.

### **4.5.1. Teacher modeling of reading comprehension strategies**

**Teacher modeling lies at the heart of teaching learning strategies in general and reading strategies in particular. In this step, the teacher assumes the major responsibility for instruction by offering a demonstration of the application of the targeted strategies in a real context. In doing so, s/he thinks aloud to make the mental processes underlying reading comprehension strategies overt, and to help students gain insights into the decisions of experienced readers including: deciding which strategies to use to perform the task at hand and the way they should be used. Meanwhile, the students observe how the teacher uses the strategies and listen to her/his thinking.**

**The modeling of reading strategies is recommended by many scholars and researchers because it makes strategies concrete and overt and promotes student engagement when they see teachers practice what they preach. As Schoenbach, Greenleaf, Cziko, and Hurwitz (1999) point out, teacher modeling can demystify the reading process by explaining the behind-the-scenes thinking required for good comprehension. They add that during modeling, the teacher should offer comments on the strategies s/he uses to work through the material. Similarly, Lenz, Ellis, and Scanlon (1996) suggest that teachers should model the strategy more than once and involve students in discussing the steps of the strategy during modeling. They add that discussion will help the teacher determine how well the students understand when and where they should use the strategy, as well as the steps involved in the strategy. Likewise, Blair, Rupley, and Nichols (2007) point out that teacher modeling should go beyond showing the student what to do and involve discussions of the steps in a process. They maintain that such discussions allow the students to get inside the teacher's mind so that they can develop similar strategies and apply them in their own learning.**

**For teacher modeling to achieve its goals, the teacher should model various strategies in different contexts, before, during, and after reading. In support of this, an analysis of proficient readers' behavior revealed that skilled reading does not involve the use of a single potent strategy but the coordination of multiple strategies (Brown, Pressley, Van Meter, and Schuder, 1996). Effective modeling also “goes well beyond merely presenting the steps in a strategy. It provides students with the "why" and "how" of various strategy steps. It also demonstrates that student effort is essential, and shows that strategy use results in better performance” (Department of Special Education and Communication Disorders, 2016). Sturomski (1997) adds that for modeling to be effective, the teacher and the students should collaborate to use the strategy; the more students and teachers collaborate to use the strategy, the more students will internalize the strategy in their strategic repertoire. Moreover, teachers must be aware of their own cognitive process during reading, and must be strategic readers and thinkers themselves in order to be effective instructors of comprehension strategies (Sturomski, 1997). Over and above, teacher modeling should be temporary not permanent just like scaffolding in the area of constructive engineering. As Nunan and Bailey (2009) put it, “The scaffold is there to help the workers reach the problem areas or unfinished areas that need attention. When those areas have been dealt with, the scaffolding is removed. It is an intentionally temporary structure” (p. 178).**

#### **4.5.2. Peer modeling of reading comprehension strategies**

**After modeling the strategies one or two times, the teacher should involve students in modeling these strategies to each other. In this step the teacher relinquishes control and encourages students to model the reading strategies alternately to each other while reading a new text. This takes place in the form of a reciprocal dialogue in which the participants take turns assuming the role of**

**a teacher in leading the dialogue about a part of this text. In such a dialogue, one of the students models the reading strategies to the other and both share the responsibility for their own learning. This, in turn, increases their chances to observe and use reading strategies in real situations. In this step, the teacher takes on a facilitator role. S/he also observes and assesses students' use of strategies, paying particular attention to the strategies students are using (or not using) to determine where scaffolding is needed to help students perfect their uses of the comprehension strategies and to follow-up with appropriate instructional activities.**

**While peer modeling, Sturomski (1997) suggests that students should be called upon to think aloud to reveal what goes on in their minds as they read and the strategy being used to comprehend what they read because comprehension occurs in one's head, and thinking-aloud helps to remove the mystery of what readers do and makes the covert overt. He (Sturomski) adds that the more learners work together to use the strategy, the more they will internalize the strategy in their strategic repertoire.**

**In addition to helping students better understand and apply new strategies, the reciprocal dialogue in which peer modeling takes place allows them to construct meaning from the text and to listen to each other's interpretations, thereby assisting each other in attaining a higher level of understanding which will be impossible if students work individually. As Tovani (2004) points out, "Good readers use talk and collaboration with peers to extend their thinking about text" (p. 98). Peterson and Eeds (1990) also assert that:**

**Dialogue puts forward a new story line, puts events and relationships into a new light. Our basis for interpreting the text is broadened. In working together to disclose a deeper level of meaning, each participant's imagination is enriched and the potential for meaning construction is expanded. (p. 29)**



The reciprocal dialogue also involves students in the negotiation of meaning which is one of the keys to promoting understanding. As Brown and Campione (1986) state, “Understanding is more likely to occur when a student is required to explain, elaborate or defend his or her position to others; the burden of explanation is often the push needed to make him or her evaluate, integrate, and elaborate knowledge in new ways” (p. 1066).

Moreover, participation in the peer-led dialogue plays a key role in developing students’ communication skills and fostering their self-confidence and self-efficacy. It also provides the opportunity for greater amounts of student verbalization, which can promote students’ linguistic competence. Moreover, it involves linking to other ideas and providing evidence from the text to support one’s thinking, which can in turn develop students’ critical thinking and resolve the conflicts between the students’ old beliefs and the new information gained from text. In support of the effectiveness of peer modeling for scaffolding reading strategies, Palincsar, Brown, and Martin (1987) found that peer interaction resulted in equal gains in reading comprehension comparable to interactions between the teacher and the students. Furthermore, Fuchs, Fuchs, and Kazdan (1999) found a statistically significant positive effect of peer-assisted learning strategies on the reading comprehension of high school students with serious reading problems. Chinn, Anderson, and Waggoner (2001) also found that text-based discussion emphasizing collaborative reasoning increased higher level thinking and overall reading engagement more than recitation styles of interaction (e.g., Initiate-Respond-Evaluate). Similarly, Van den Branden (2000) found that primary-grade students who engaged in conversation around texts had higher comprehension than those who did not collaboratively negotiate meaning. She concluded that higher comprehension may have resulted from the challenges of explaining oneself to others or the collaborative effort to repair breakdowns in comprehension.

### **4.5.3. Independent use of the strategies in action**

**Independent use of the strategies in action occurs once the teacher is convinced that students can use the strategies on their own (Kamil et al., 2008). In this step, each student applies the comprehension strategies independently in reading a new text; and the teacher completely releases the responsibility to each student to use the strategies on her/his own. That is, each student actually practices the strategies s/he has been taught in the previous steps (teacher and peer modeling) on her/his own, without the help of others. While so doing, the teacher moves among individuals to make sure that each student is actually applying the strategies in action. The teacher also assesses students' use of strategies, paying particular attention to the strategies they are using (or not using) to determine where scaffolding is needed to help students perfect their uses of the comprehension strategies and to follow-up with appropriate instructional activities.**

### **4.5.4. Self-assessment**

**In this step, each student assesses her/his own comprehension in relation to the reading strategies s/he employed before, during and after reading. This step is necessary for the student to know whether or not comprehension has occurred; and whether or not the strategies s/he employed before, during and after reading were effective. It also develops the student's ability to self-reflect and to become more aware of and insightful about her/his use of reading strategies. This, in turn, helps the student to use the strategies effectively and to change or modify the strategy which does not work.**

**To make it easy for the student to self-assess her/his own reading comprehension in relation to the reading strategies s/he has already used, the teacher should provide her/him with an assessment tool. If such a tool is developed in collaboration with students, they will gain a clearer understanding of how to use it and develop a sense of its ownership. The teacher should provide**

**an opportunity for each student to use this tool after the independent use of the strategies in action. S/he should also read the student's responses to this tool and discuss them with her/him in individual conferences. If the teacher has no time to develop a tool for self-assessment, s/he can select or adapt an existing one, such as the ones presented in the figures below.**

**Figure 4.1: A self-assessment tool of reading strategies (Adapted from Williamson, McMunn, and Reagan, 2004, p. 17)**

Name: -----, Date: -----.

Title of the reading passage: -----  
-----

**I used a repertoire of comprehension strategies with the text I have read.**  
Yes  No

**The strategies I used helped me understand what I read.**  
Yes  No

**The reading strategies made me read more thoughtfully.**  
Yes  No

**The reading strategies I found most useful were:**  
-----  
-----  
-----  
-----.

**The reading strategies I found difficult to use were:**  
-----  
-----  
-----  
-----.

**Figure 4.2: A self-assessment checklist of reading strategies (SABES, 2008, p. 10)**

Name: -----.			
Date: -----.			
Check (✓) the box that indicates how you read.			
Reading Strategies	Often	Sometimes	Never
1. I think about what I already know about the topic.			
2. I make predictions and read to find out if I was right.			
3. I reread the sentences before and after the word I do not know.			
4. I ask another student for help.			
5. I look for the main idea.			
6. I take notes.			
7. I discuss what I read with others.			

**(Figure 4.2 Continued)**

<b>8. I stop and summarize.</b>			
<b>9. I choose material to read on my own.</b>			
<b>10. I make outlines of what I read.</b>			

To conclude this section, there are two important considerations that should be taken into account when using the author’s model for teaching reading comprehension strategies to students with reading comprehension disabilities. These considerations are: (1) reading comprehension requires the orchestration of a repertoire of strategies, and (2) reading strategies instruction must not occur in isolation from context. Each of these considerations is discussed in more details below.

- (1) **Reading comprehension requires the orchestration of a repertoire of strategies. Successful readers apply a wide range of strategies before, during, and after reading to comprehend what they read. In other words, they use a collection of strategies and do not rely on one or two strategies. They also know how to use different strategies at different points in a text and how to switch strategies as the text demands. As Williamson, McMunn, and Reagan (2004) put it:**

**Before, during, and after reading, effective readers apply multiple strategies flexibly, selectively, independently, and reflectively. For example, they identify purposes in reading, make predictions, and check them as they read, and they ask insightful, reflective questions about what they are reading.**

**They have a number of strategies they use and do not over rely upon one or two strategies. They also know how to use different strategies in different contexts. (p. 6)**

**Therefore, the teacher should teach learners a repertoire of strategies that complete and support each other. Although each strategy may be taught singly, the teacher should model and demonstrate the use of a repertoire of strategies while reading authentic texts. In other words, s/he should teach students how to integrate and use multiple strategies flexibly. Along this line of thinking, Grabe (2009) states that “the combination of strategic responses to texts appears to be more effective in supporting comprehension development” (p. 445). Likewise, Gooden (2012) states, “Instruction in comprehension strategies helps children become flexible thinkers who can approach a variety of texts with a repertoire of strategies, thus helping them to better comprehend those texts” (p. 17). In essence, comprehension requires a repertoire of strategies from which students can draw during independent reading. The more strategies a reader has at her or his disposal, the more likely she or he is to interact meaningfully with a given text.**

**In support of the development of a repertoire of reading strategies, research indicates that successful readers apply a wide range of strategies to comprehend what they read and that the ability to coordinate and make associations among various reading strategies is a major distinction between good and poor readers. In an analysis of proficient readers' reading behavior, Brown et al. (1996), for example, found that skilled reading did not involve the use of a single potent strategy but the coordination of multiple strategies.**

**Moreover, research showed that teaching a variety of strategies was more effective than individual strategy instruction (e.g., Brown, 2008; Duke and Pearson, 2002; Pressley and Afflerbach, 1995; Reutzel, Smith, and Fawson,**

2005; Sporer, Brunstein, and Kieschke, 2009). Reutzel, Smith, and Fawson, (2005), for example, found that introducing a set of strategies briefly and then quickly moving students to applying or juggling multiple strategies simultaneously was more effective than spending several weeks focusing on a single strategy. In addition, studies and reviews of integrated methods/activities for strategy instruction, such as reciprocal teaching, revealed that teaching students a repertoire of strategies from which they could draw during independent reading could lead to improving the reading comprehension of students with and without reading disabilities (e.g., Sporer, Brunstein, and Kieschke, 2009).

From a review of literature on reading strategy instruction, the National Reading Panel (2000) supports the same consideration in the following way:

Reading requires the coordinated and flexible use of several different kinds of strategies. Considerable success has been found in improving comprehension by instructing students on the use of more than one strategy during the course of reading. Skilled reading involves an ongoing adaptation of multiple cognitive processes....Being strategic is much more than knowing the individual strategies. When faced with a comprehension problem, a good strategy user will coordinate strategies and shift strategies as it is appropriate to do so. (p. 4-47)

Numerous reading researchers also agree that teaching repertoires of strategies improves reading comprehension and recall of information from texts. The National Reading Panel's report on effective instructional practices, for example, demonstrated the value and usefulness of teaching a variety of reading comprehension strategies to students of all ages as follows:

**The empirical evidence reviewed favors the conclusion that teaching of a variety of reading comprehension strategies leads to increased learning of the strategies, to specific transfer of learning, to increased memory and understanding of new passages, and, in some cases, to general improvements in comprehension. (NRP, 2000, p. 4-51)**

**In the same vein, on the basis of their review of research evidence from many studies, Kamil et al. (2008) concluded that “multiple-strategy training results in better comprehension than single-strategy training” (p. 17).**

- (2) Reading strategies instruction must not occur in isolation from context. It should be integrated into the regular classroom activities. More specifically, the teacher should integrate reading strategies instruction with the objectives, tasks, and materials used in the regular reading program because this facilitates the transfer of strategies to similar tasks, makes the strategies more meaningful, allows learners to see how these strategies can be applied to real life reading, and assists them in becoming autonomous readers. Along this line of thinking, many practitioners and researchers recommend teaching learning strategies in contexts that are relevant and appropriate for their use. Ehrman, Leaver, and Oxford (2003), for example, state, “A given learning strategy is neither good nor bad; it is essentially neutral until it is considered in context” (p. 315). Further, Oxford (1993) suggests that the strategies chosen should mesh with and support each other, whilst fitting the requirements of the language task, the learners' goals, and their styles of learning. In the same vein, O'Malley (1987) asserts that strategy training should be interwoven into regular L2 activities and be undertaken over a long period of time (a semester or a year) rather than taught as a separate, short intervention.**



Bearing in mind the previously mentioned considerations, it appears that multiple reading strategies instruction in authentic reading situations will be highly effective for students with and without reading disabilities. In this light, the next two sections will address an activity and a method that take these two considerations into account (i.e., directed reading-thinking activity and reciprocal teaching).

## **4.6. Directed reading-thinking activity**

### **4.6.1. Definition of the directed reading-thinking activity**

The directed reading-thinking activity (DR-TA) is a comprehension activity that guides students in making predictions about a text, and then reading to confirm or refute their predictions. The creator of the DR-TA method, Russell Stauffer, defines it as a cycle that students go through when they read. This cycle starts out by having students predict, then read a paragraph of a text and evaluate their predictions, make new predictions and read another paragraph and evaluate their predictions, and so on.

### **4.6.2. Benefits of the directed reading-thinking activity**

Much information has been written about the directed reading-thinking activity and its importance for improving reading comprehension in general. According to Tierney, Readence, and Dishner (1995), the DR-TA is a method for building independent readers. Similarly, Richardson and Morgan (1997) state that the DR-TA engages students in higher order thinking skills and that these skills include: making connections between interrelated elements of the text, justifying thought processes and drawing logical conclusions. They maintain that these skills can set the pathway toward independent reading, foster learner responsibility and improve reading comprehension.

Furthermore, Jennings and Shepherd (1998) state that the DR-TA helps students become aware of reading strategies, understand the reading process, and develop prediction skills. They add that this activity stimulates students' thinking and makes them listen to the opinions of others and modify their own in light of additional information. By the same token, El-Koumy (2006) states that the DR-TA engages students in higher-order thinking about what they read and involves them in using a repertoire of reading comprehension strategies. These strategies include: (1) setting purposes for reading through predictions and activation of content schemata; (2) generating and answering questions before and during reading to confirm, disconfirm or extend predictions; (3) self-monitoring (i.e., use of predictions to monitor comprehension); (4) clarifying (i.e., making text less confused and more comprehensible through peer and/or group discussion of predictions); (5) inferring (i.e., reading between the lines to confirm or disconfirm predictions); and (6) evaluation (i.e., assessing the goodness of predictions through peer- and/or self-assessment). The application of this repertoire of strategies can improve reading comprehension, recall of information from texts, and higher-order thinking skills.

Along the same line, Tankersley (2005) states that the DR-TA extends reading to higher-order thought processes and provides teachers with a great deal about each student's thought processes, prior knowledge and thinking skills. Moreover, many educators believe that the DR-TA helps students to interact with information, to read more actively and enthusiastically, and to assess their own comprehension. It is also useful for processing all types of text and fostering students' reflective and analytical thinking skills. Finally, the DR-TA can be easily adapted for a variety of subjects and reading levels.

#### **4.6.3. Procedures of the directed reading-thinking activity**

Based on an extensive review of the relevant literature and his personal experience, the author suggests the following eight steps

**for modeling the DR-TA in the EFL classroom:**

- 1. The teacher writes the title of the reading passage on the board and asks students to read it,**
- 2. The teacher asks students to make predictions about the title using the following questions:**
  - a. What do you think a passage with a title like this might be about?**
  - b. Why do you think so?**
- 3. The teacher lists predictions on the board and initiates a discussion with some of the students by asking them to respond to the following questions:**
  - a. Which of these predictions do you think would be the likely one?**
  - b. Why do you think this prediction is a good one?**
- 4. The teacher invites students to work in pairs to complete the discussion following the same format.**
- 5. The teacher asks each student to read the passage silently to confirm or reject her/his own predictions. S/he then initiates a discussion with some of the students by asking them the following questions:**
  - a. Were you correct?**
  - b. What do you think now?**
  - c. Why do you think so?**
- 6. The teacher asks students to discuss and assess their own predictions in pairs through asking and responding to the following questions:**
  - a. What prediction did you make?**

- b. What made you think of this prediction?**
  - c. What in the passage supports this prediction?**
  - d. Do you still agree with this prediction? Why?**
- 7. The teacher gives each student the chance to independently apply the strategies s/he has already known to a new text.**
  - 8. The teacher asks each student to self-assess the strategies s/he has applied in relation to her/his comprehension of the text.**

#### **4.6.4. Research on the directed reading-thinking activity with learning-disabled students**

**Research literature on the DR-TA reveals that many studies have examined the effect of this activity on students' reading comprehension, but no studies specifically investigated its effect on the reading comprehension of students with learning disabilities. Therefore, this section reviews the DR-TA research conducted with struggling readers in general.**

**Tancock (1994) developed a lesson for low-achieving children with reading problems in an after school tutoring program. Her lesson consisted of directed reading-thinking activities. The lesson included prereading activities such as generating questions and making predictions. Students answered questions that were generated during prereading activities. Postreading activities included evaluating predictions, clarifying, and extending or refining thinking about the story. The findings revealed a significant improvement in the students' reading skills. The students also began viewing the reading process as a meaningful experience rather than just rapidly going through reading material to get specific answers to assignments.**

**Sears, Carpenter, and Burstein (1994) used the DR-TA simultaneously with summarizing, questioning and clarifying strategies, and investigated their effect on the reading comprehension of eighth graders with special needs. Results**

showed a measurable gain on word recognition and reading comprehension.

Fabrikant, Siekierski, and Williams (1999) used the DR-TA in combination with brainstorming of prior knowledge, Question Answer Relationship (QAR), self-monitoring questions and literature circles, and investigated their effect on the reading comprehension skills of third, fourth and fifth grade students who had poor literal and inferential comprehension skills. Results indicated that this package of strategies improved students' intrinsic motivation to read as well as their literal and inferential reading comprehension skills.

El-Koumy (2006) investigated the effects of the directed reading- thinking activity on first-year secondary poor comprehenders. The study utilized a pretest-posttest control group experimental design. The subjects consisted of 72 first-year secondary poor comprehenders in Menouf Secondary School for Boys at Menoufya Directorate of Education (Egypt) during the academic year 2005/2006. These subjects were randomly assigned to an experimental group and a control group. Both groups were pre-tested to measure their referential and inferential reading comprehension before conducting the experiment. During the experiment, the experimental group students were exposed to the DR-TA, whereas the control group students were exposed to the conventional method of teaching reading comprehension. The experiment lasted for about five months. After treatment, the two groups were post-tested to investigate any significant differences in their referential and inferential reading comprehension. The obtained data were analyzed using the Multivariate Analysis of Variance (MANOVA) and the T-test. The findings showed that there were statistically significant differences in both referential and inferential reading comprehension in favor of the experimental group.

**Van Riper (2010) investigated the functional relationship between the directed reading-thinking activity and the reading comprehension skills of students with Autism Spectrum Disorder (ASD). Some of these students decoded with ease, and some read falteringly. The DR-TA intervention, which occurred in a small group setting, included use of non-linguistic visual supports, such as graphic organizers, pictures, and objects. A reading inventory and chapter comprehension checks revealed that students with ASD made gains in reading comprehension with the use of the DR-TA.**

## **4.7. Reciprocal teaching**

### **4.7.1. Definition of reciprocal teaching**

**Reciprocal teaching (RT) is a multiple-strategy method developed by Palincsar and Brown (1984). In this method, the teacher and the students take turns leading a dialogue about the text they are working with. The teacher then gradually turns over responsibility to the students to have this dialogue with each other. The purpose of this dialogue is to achieve joint understanding of the text through the application of four comprehension strategies that aid in developing reading comprehension. As Palincsar, David, Winn, and Stevens (1991) put it:**

**In reciprocal teaching teachers and students take turns leading a dialogue about the meaning of the text with which they are working. The discussion focuses on (1) generating questions from the text, (2) summarizing the text, (3) clarifying portions that impair understanding, and (4) predicting upcoming content. ... When these dialogues begin, the teacher assumes principal responsibility for leading and sustaining the discussion, modeling skilled use of the strategies for the purpose of**

**understanding the content. Even from the first day of instruction, however, the children are encouraged to participate in the discussion by generating their own questions, elaborating upon or revising the summary, or suggesting additional predictions. (p. 46)**

**In a nutshell, RT is a scaffolded discussion method built on four strategies that good readers employ to comprehend texts. In this method the teacher models, through thinking aloud, the application of these strategies, gradually transferring control to students. That is, students gradually take on the teacher's role as they become more confident and proficient.**

### **4.7.2. Reciprocal teaching strategies**

**The four strategies that traditionally constitute reciprocal teaching are: questioning, summarizing, clarifying, and predicting. Palincsar and Brown (1984) selected these four strategies because they provide a dual function; that is, they embody both comprehension-monitoring and comprehension-fostering activities. Moreover, each of these strategies has an important role in the reading comprehension process. This role is discussed below.**

**Questioning focuses students' attention on the main ideas, provides a check on their current understanding of what they are reading and enables them to monitor comprehension. When generating questions, one must first identify the important points that are worthy of questioning by understanding the basic gist of the text and the main points that support it. Moreover, students tend to read with greater purpose when they know that they are expected to frame questions about what they have read. They also learn to take responsibility for the comprehension of what they read (Hashey and Connors, 2003). With questioning, students come to realize that both information from the text and their own schema are important when answering questions. Generating questions about a text and answering them also make the information easier to remember and provide more opportunities**

to interact with the content of the text (Graham and Hebert, 2010, Swanson and De La Paz, 1998). Questioning is also an effective strategy that can be used with students of all ages and levels. According to Clark, Deshler, Schumaker, and Alley (1984), learning disabled students can increase their reading comprehension via self-questioning. In support of this, research has shown that training in question and answer relationships benefit average and lower level performing readers (Raphael and Pearson, 1985). Moreover, Wong and Jones (1982) found that eighth- and ninth-grade students with learning disabilities who were taught to use the self-questioning strategy performed better on a number of measures, including gist recall, idea unit identification, and factual recall, than students who received no training. There is also a positive relationship between generating higher order questions and reading comprehension; that is, the more higher order questions students generate, the better reading performance they have. Davey and McBride's (1986) study also showed that students' reading comprehension in the question-generation group was better than students in the read-reread group. Moreover, Rost and Ross's (1991) study revealed that "prior training of learners in specific questioning strategies can exert an effect on their subsequent behavior in interactions and can influence their immediate comprehension of a text as well".

Summarizing a text "requires readers to sift through large units of text, differentiate important from unimportant ideas, and then synthesize those ideas and create a new coherent text that stands for, by substantive criteria, the original" (Dole, Duffy, Roehler, and Pearson, 1991, p. 244). Therefore, teaching students to summarize what they read can improve their overall comprehension of text. In support of summarizing as one of the most successful strategies for teaching reading comprehension, Gajria and Salvia (1992) taught middle school students with learning disabilities to summarize expository prose passages. Findings indicated that trained students performed better on multiple choice questions than those in a no-treatment comparison



group and that the summarization strategy was maintained over time and students generalized its use to other tasks. Graham and Hebert (2010) also found that writing summaries about what was being read was associated with improvements in reading comprehension. They also found that writing summaries was better than simply reading and rereading the text.

Clarification is needed when new vocabulary is encountered, difficult concepts are presented, or ideas are not understood. When readers use clarification, they unpack ambiguous, confusing sections of text and identify when comprehension is not progressing before excessive breakdowns occur. Clarification also engages students in a critical evaluation of their own reading.

With respect to prediction, it occurs when the students hypothesize what the author will discuss next in the text. The literature confirms that this strategy is effective and facilitates comprehension. When students make predictions about texts, they are tapping into their own prior knowledge to help make connections between the knowledge they possess and the knowledge they will acquire from reading a text. When students activate their schema and make connections with the text, they develop a deeper understanding of the information they receive. If the schema is not activated properly, the student's comprehension will suffer (McNeil, 1992). In support of this, research has shown that good readers activate their schema before, during, and after reading. The strategy of prediction also makes the reader alert to cues that aid in confirmation or adjustment of the prediction, thus increasing the active stance of the reader and offering checks for clarification. Prediction also allows students of varying abilities to contribute their ideas and helps them to set a purpose for reading (Hashey and Connors, 2003; Oczuks, 2003). Therefore, reciprocal teaching uses prediction as a strategy to set the stage for students to comprehend what they read.

In sum, Palincsar and Brown (1984) describe the reasons for choosing the four strategies mentioned earlier as "comprehension fostering and comprehension-monitoring" (p. 121). The order in which the reciprocal teaching strategies are used is not fixed; it depends on the text and the reader (Oczkus, 2003). The strategies are merely the steps good readers take on their way to comprehension. As such, they are a means to an end in the comprehension process. These strategies not only assist reading comprehension but also provide opportunities for students to monitor their own learning and thinking processes with or without assistance.

As mentioned before, there are four main strategies that traditionally constitute reciprocal teaching. However, these strategies have had many adaptations and extensions over time. Many practitioners and researchers (e.g., Coley, DePinto, Sharon, and Gardner, 1993; Meyer, 2010) have adapted these strategies to suit their local context, subject area and student learning needs. Meyer (2010), for example, extended these strategies to include orientating, connecting and giving feedback.

### **4.7.3. Theoretical foundation of reciprocal teaching**

Reciprocal teaching appears to reflect the learning principles derived from theories such as social constructivism, cognitivism and metacognitivism. The reciprocal nature within reciprocal teaching is rooted in Vygotsky's theory of 'Zone of Proximal Development' which refers to the support that should be given to students under adult guidance or in collaboration with more capable peers to make it possible for the novice to participate in mature tasks from the very beginning. According to Vygotsky, cognitive practices such as reading comprehension are acquired through social interaction in which students negotiate for meaning with more knowledgeable others. In doing so, students are initiated into the cognitive practices and strategies of skilled comprehenders, which are then internalized. In this way, scaffolding can help students to exceed what can be attained alone,

develop higher skills and increase their knowledge base. In this respect, Alfassi, Weiss, and Lifshitz (2009) state that during the early stages of reciprocal teaching the instructor should assume the major responsibility for instruction by explicitly modeling the four strategies on a reading passage. S/he should gradually diminish scaffolding as students move from what Vygotsky (1978) called the 'other directed' to 'self directed' stages of understanding. Eventually, the student assumes most of the comprehension responsibilities and the teacher becomes a supportive and sympathetic audience. That is, as the skill level of the learner increases, the level of teacher support decreases. With diminished assistance, the student gradually assumes total responsibility for the application of the reciprocal strategies.

Moreover, reciprocal teaching is based on the cognitive theory which contends that all students need to learn a range of cognitive strategies so that they will be able to select from an extensive repertoire to address their particular learning needs and abilities (Graves and Graves, 1994). A major assumption underlying reciprocal teaching is that students will eventually internalize the use of the four supporting strategies and utilize them effectively. The strategies that are practiced between learners in the group will eventually be accomplished within the individual students.

Reciprocal teaching is also metacognitive in that students are required to monitor their own comprehension performance and decide whether it is appropriate to apply a specific strategy at a particular time. The teacher slowly decreases modeling of the strategies and relinquishes more control to students as they demonstrate independence with applying these strategies. The students become independent when the strategies they have been taught cognitively are used metacognitively.

#### **4.7.4. Benefits of reciprocal teaching**

Reciprocal teaching is an effective instructional method that can improve the reading comprehension of students of varying levels

and abilities (Brown and Palincsar, 1985). The advantages of this method include: (1) building students' comprehension skills through the use of cognitive strategies, (2) integrating language skills, (3) developing students' social skills, (4) developing students' sociolinguistic competence and improving their oral language skills, and (5) allowing the teacher to assess students in a non-threatening atmosphere.

In addition to the previously mentioned benefits, reciprocal teaching meets the needs of students with inferior reading abilities. It is perhaps the first formal instructional method targeted at struggling readers (Palincsar and Brown, 1984). More specifically, the four strategies that constitute reciprocal teaching best address the deficiencies of poor readers (Hart and Speece, 1998). In support of this, Carter (1997) found that “[r]eciprocal teaching helps novice readers learn and internalize the strategies excellent readers employ” (p. 65). In a research synthesis of twenty-nine studies, Gajria, Jitendra, Sood, and Sacks (2007) found that students with learning disabilities (though fluent in text decoding) tended to be passive readers who did not automatically engage with the text at a deep level. They were unable to relate new information to prior knowledge and exhibited no self-monitoring skills for reading. Yet when exposed to RT, notable improvements in reading comprehension were recorded. However, there are some disputes among educators on the order in which the reciprocal teaching strategies should be used. Should the prediction strategy, for instance, be used before reading the text to activate students' prior knowledge, or should it be used during reading where students are required to predict what will happen next? Another drawback to this method is that students may have reservations to learning how to use the reciprocal teaching strategies which are time consuming to learn (Hashey and Conners, 2003).

#### **4.7.5. Procedures of reciprocal teaching**

The procedures of reciprocal teaching run as follows: The students and the teacher read a paragraph of a text. Next, the teacher

models the four strategies aloud by summarizing the paragraph they read, clarifying anything that needs to be clarified, generating questions about this paragraph, and predicting what will happen in the next paragraph. After that the teacher asks one specific student to read the next paragraph aloud, and engages in coaching and scaffolding to help this student proceed through the RT steps. The teacher then does the same thing with another student. Once several students have engaged in RT, the teacher begins to fade her/his support and gradually diminishes the scaffolding assistance as students begin to assume full control of the four strategies. In this step, students take turns modeling the strategies in peer groups and the teacher becomes a mediator who provides guidance and feedback tailored to the needs of the current dialogue leader and her/his partner. Each student then applies the four strategies independently to a new text. Lastly, each student self-assesses the strategies s/he has used in relation to her/his comprehension of the new text (Adapted from Palincsar and Brown, 1984).

In short, because it is particularly developed for struggling middle school readers, the reciprocal teaching method incorporates teacher and peer modeling. This modeling is withdrawn gradually and systematically, passing responsibility to the individual learner. In this way, struggling readers can master the four supporting strategies of reciprocal teaching and use them independently for all of their reading assignments.

#### **4.7.6. Research on reciprocal teaching with students with reading disabilities/difficulties**

Reciprocal teaching has been demonstrated as an effective teaching method in a variety of settings, by countless researchers with students of varying levels and abilities. However, this section only offers a review of the research on reciprocal teaching with students with reading disabilities/difficulties.

**Originally, Palincsar and Brown (1984) investigated the effects of reciprocal teaching on the reading comprehension of two different groups of struggling seventh-grade students. In the first study, Palincsar and Brown (1984) investigated the change RT made in the reading comprehension of expository text for seventh graders with adequate decoding but poor comprehension. Comparison groups participated in a "locating information" intervention, regular classroom instruction or unmet control. Participants in the RT group, who met in pairs with an instructor, received 20 lessons over a four-week period, reading expository passages averaging 1500 words each. The RT students became progressively more proficient at implementing the cognitive tactics taught to them. During daily reading assessments following instruction, RT students made striking improvements in their ability to answer comprehension questions on the passages read. RT readers' abilities to summarize, detect anomalous information in text, and answer comprehension questions were significantly improved. Summaries given by RT students contained more main ideas and fewer incorrect or incomplete details. Additionally, the six students in the RT group significantly improved from pre to post-test in their ability to (a) answer comprehension questions and (b) identify text incongruities. These changes were maintained over time. On standardized tests of reading achievement, four of six RT students made substantial gains averaging 15 months' growth. Control students evidenced no corresponding change. Palincsar and Brown observed that their intervention accelerated the progress of the lower-achieving readers. Readers with and at risk for disabilities in the RT group improved to the level set by the average readers, whereas marginalized readers in the other two groups did not.**

**In their second study, Palincsar and Brown (1984) moved the RT intervention into the classroom (i.e., resource room instruction) with their regular teacher in the facilitator's role. Intervention materials and procedures were identical to Study 1. Palincsar and Brown found the same trends for improved reading comprehension for sixth, seventh, and eighth graders with**

adequate decoding but poor comprehension who received training in RT. In early lessons, the teacher tended to retain a "pivotal" role in RT, with students interacting with her/him rather than with one another. By lesson 10, however, student-participants initiated and responded independent of the teacher's guidance, acting as agents of their own learning, with teachers redirecting discourse only as needed. Students in the RT condition improved their ability to summarize, answer comprehension questions, and state main ideas. The quality of their text-centered discourse also improved.

The use of reciprocal teaching to improve the standardized reading comprehension performance of poor readers was studied by Lysynchuk, Pressley, and Vye (1990). In their study, 72 grade four and seven students in Canada participated in 13 sessions of reciprocal teaching reading instruction. Those students, as characterized by their teachers, were adequate decoders but poor comprehenders. All of them received scores below the 50th percentile on standardized achievement tests on the comprehension subtest. Of the 72 students, 36 were assigned to the reciprocal teaching intervention, while others worked in small groups, with the teacher offering assistance if needed in decoding and passage understanding (i.e., the guided reading model). Thirteen sessions were administered to both groups, with daily dependent measures being taken (i.e., retelling and questions), as well as pre and post standardized reading measures (i.e., Gates-MacGinitie Reading Comprehension Test). Results revealed that the mean pretest to posttest gain for the reciprocal teaching students was significant with a 9.97 percentile point gain, whereas the control group received a 1.63 percentile point increase, which was not significant.

Westera and Moore (1995) investigated the effect of reciprocal teaching on the reading comprehension of 46 high school students in New Zealand. These students were adequate decoders but scored the lowest of 300 students on a standardized comprehension test. Eleven of the 46 students served as the control group. The rest

of the students were divided into two groups where one group received between 12 and 16 sessions and the other group received 6 to 8 sessions of reciprocal teaching instruction. An analysis of pretest posttest scores revealed that the extended reciprocal teaching group outperformed the control group significantly. Ninety-five percent of the extended strategy group gained an average of more than one age equivalent year in reading comprehension performance over the five-week period. The short strategy group showed gains in reading comprehension of 47 %, where the control group demonstrated gains of 45 %.

Klingner and Vaughn (1996) used reciprocal teaching as an intervention for poor decoders with learning disabilities at the middle school level. A small sample size of 26 students was treated with 15 sessions of reciprocal teaching. For these sessions, students were randomly assigned to one of two groups (i.e., reciprocal teaching with cooperative tutoring or reciprocal teaching with cross-age tutoring). Three sessions were used for strategy instruction, while the remaining 12 sessions implemented reciprocal teaching. The instruments used as dependent measures included the Gates-MacGinitie standardized reading tests and teacher-made comprehension questions on reading passages as developed by Palincsar and Brown (1984). The results indicated that reciprocal teaching improved reading comprehension even with only minimal adult support. They (Klinger and Vaughn) concluded that reciprocal teaching was especially important for ESL learners as it improved their meta-cognitive skills and gave them voice to what they were doing while they were reading.

Alfassi (1998) investigated the effects of reciprocal teaching in comparison to traditional methods used in remedial reading in large intact high school remedial reading classes. The results showed that the students who participated in the reciprocal teaching classes obtained higher post intervention comprehension scores than their peers who participated in traditional reading instruction.



**Brand-Gruwel, Aarnoutse, and Van Den Bos (1998)** investigated the effects of reciprocal teaching on the comprehension of students with poor decoding skills and poor reading comprehension. One hundred fifty-seven fourth-grade students participated in this study; half of them received the reciprocal teaching intervention program and half of them acted as a control group and received their school reading curriculum instruction. The intervention program consisted of twenty 45-minute lessons, ten of which were reading lessons, five were listening lessons, and five were integrated reading and listening lessons. During the lessons clarifying, questioning, summarizing, and predicting strategies were first explicitly taught and modeled by the teacher. They were then practiced through reciprocal teaching in small groups of students. When compared to a control group, the students who received the explicit and reciprocal training performed better on tests of comprehension.

**Hart and Speece (1998)** used reciprocal teaching with college students who were at risk of academic failure and compared them to a group of students who participated in cooperative learning groups where students were not trained to use reciprocal teaching strategies. The reciprocal teaching groups performed significantly better than their peers in the cooperative groups on reading comprehension and strategy acquisition measures. Moreover, the poorer readers in the reciprocal teaching groups performed significantly better than poorer readers in the cooperative groups.

**Johnson-Glenberg (2000)** conducted a study to determine the effects of reciprocal teaching on the reading comprehension of students with poor text comprehension skills. The sample of the study consisted of 59 third, fourth, and fifth graders from three different schools. Over a ten-week period, 22 students received reciprocal teaching intervention, 23 students received visualizing-verbalizing intervention, where students formed mental images in their minds of important text segments and then verbalized their

understanding, and 14 students were untreated and served as the control group. Both strategy groups made statistically significant gains that were greater than the control group on four measures including word recognition, question generation, answering explicit open-ended questions and visual open-ended questions. Additionally, the reciprocal teaching group demonstrated significant gains over the control group on answering questions involving implicit open-ended questions.

The use of reciprocal teaching within inclusive social studies classrooms was investigated by Lederer (2000). The sample consisted of 128 students in the intermediate grades (4th, 5th, and 6th), of whom some were identified as learning disabled. At each grade level, two classrooms were inclusive, (i.e., general education and special education students) and the other two were non-inclusive (i.e., general education students only). In the study, the experimenter/researcher administered approximately 15 reciprocal teaching sessions across the three grade levels. The results indicated that the experimental group scored higher than the control group at all grade levels. The study also revealed positive changes in students' abilities to generate questions, respond to questions, and summarize information. These results suggested that reciprocal teaching was an effective whole class intervention that improved the reading comprehension of students with learning disabilities.

A multiple-baseline across groups design was employed by Kelly, Moore and Tuck (2001) to gauge the effects of reciprocal teaching. Eighteen poor readers in fourth and fifth grades were selected to participate in the study in an urban elementary school in New Zealand. Three groups were formed—two receiving the reciprocal teaching intervention (n= 6 each) and one receiving their regular reading instruction (n= 6). The results showed that both groups receiving the reciprocal teaching intervention made significant gains in reading comprehension based on daily teacher-made comprehension tests. These gains were not seen for the third group, which received its regular reading instruction. Treatment

integrity was addressed by gathering data on the use of the four strategies by teacher and student during the reciprocal teaching intervention. These data indicated an increase in teacher-directed strategy use during baseline rather than during the intervention phase.

Fung, Wilkinson, and Moore (2003) used RT with intermediate-level students in heterogeneous groups of students with and without limited English proficiency (LEP). Students with LEP participated in discussions of texts either in their first language (Chinese) or English. The statistical analysis employed was multiple t-tests for non-independent samples to analyze whether posttest scores of the strategy classes as a whole were significantly higher than pretest scores, compared to a class that did not use the reciprocal teaching method. The results indicated that reciprocal teaching was highly effective for fostering and strengthening reading comprehension skills even though students were poor decoders.

LeFevre, Moore, and Wilkinson (2003) applied a modified reciprocal teaching intervention with students who had limited decoding and comprehension skills. Two single subject experiments, one with an ABC design (featuring baseline, Condition 1, Condition 2, follow-up, and maintenance), and one using a multiple baselines across groups of students (as suggested by Palincsar and Brown, 1984) evaluated reciprocal teaching. Study one assessed six students in 3rd grade in an urban school in Auckland, New Zealand. Students were first assessed with no treatment during baseline. Then during Condition 1, the traditional reciprocal teaching intervention was applied. Condition 2 consisted of tape-assisted reciprocal teaching where students listened to the story via a tape recorder and followed the conventional reciprocal teaching method. There was no change from baseline (14%) to condition 1 (15%) on the percentage of comprehension questions answered correctly based on daily repeated measures. Conversely, during Condition 2 (tape-assisted),

improvement was noted, with students attaining a mean performance of 47% correct on the daily comprehension test. The second study was composed of 18 students in the same age range and social setting from three different schools. This second study was conducted to provide some generalizability based on the previous experiment. The results on the daily short answer comprehension tests showed systematic improvement on performance, as well as significant gains when compared to baseline data.

Diehl (2005) investigated the effects of reciprocal teaching on strategy acquisition of fourth-grade struggling readers. Six, fourth-grade struggling readers from Glendale School participated in the study. Specifically, these students were identified because they could decode words adequately but comprehended text poorly. Identified students participated in 20 sessions following the reciprocal teaching framework—a reading intervention program that incorporates direct instruction in four comprehension strategies, questioning, predicting, clarifying, and monitoring. The teacher explicitly demonstrated how, when, and why to apply each strategy while reading a text. After the initial demonstrations, the teacher slowly withdrew her support as the students began to take turns modeling the strategies and offering feedback to each other. Results indicated that direct strategy instruction appeared to affect strategy acquisition which then led to improvement in the students' abilities to comprehend what they read. Further, it seemed that these six students relied heavily on their world knowledge, manifested through the strategy of prediction, at the early stages of strategy acquisition. Finally, questioning to clarify an idea seemed to be an important function as the impetus for group discussions, which led to the joint construction of meaning. The other strategies were embedded within the discussion, and the joint construction of meaning appeared to result from the mutual dependencies of all four

**strategies. The results of this study may be important to practitioners interested in developing reading instruction that meets the needs of students who can decode words adequately but comprehend text poorly.**

**To sum up, the previously-mentioned studies on reciprocal teaching revealed that reading strategies can successfully be taught to students with reading disabilities/difficulties and that these strategies can improve their reading comprehension. These studies provided further evidence of the effectiveness of reciprocal teaching as an instructional procedure for students experiencing difficulty with reading comprehension in a variety of contexts including regular classrooms where teachers are forced to provide instruction to diverse populations of students.**

# **Chapter Five**

## **Teaching Writing Strategies to Students with Writing Disabilities**

### **5.0. Introduction**

Today, we live in the information age, where computers are used for teaching, learning and communication; therefore, writing in English has become essential to enable students to meet the challenges of this age and to use its new communication technologies for learning and communication. In this respect, Björk and Räisänen (1997) argue that writing is a need today due to internationalization development of computer communication and the mobility of both students and faculty.

Moreover, Bello (1997) proposes that writing in general is an important skill whether in students' native or foreign language. He argues that writing helps students to communicate their feelings and thoughts with others and enhances their linguistic competence as they use vocabulary and grammar to communicate their own ideas. Likewise, Stirling (2003) claims that writing is a very important skill for EFL students as they need to write in English in both academic and everyday life. She adds that this skill is an important tool for communication and it gives students more self-confidence to experiment with language. Graham and Perin (2007b), too, contend that the "writing skill is a predictor of academic success and a basic requirement for participation in civic life and in the global economy" (p. 3).

By the same token, Nik, Hamzah, and Rafidee (2010) state that writing reinforces students' grammatical structures and develops their language in terms of fluency, accuracy, and appropriateness in the communication of meanings and messages. They claim that

since English language is essential for attaining academic degrees, students should acquire and achieve some kind of satisfactory level of writing proficiency. They add that writing helps students use English frequently and provides them with opportunities to form their own ideas clearly.

Over and above, Graham and Harris (2011) state that the writing skill is needed for acquiring jobs. They maintain that there are many jobs, regardless of the nature of the job, which require effective writing. They also state that nineteen out of twenty students with learning disabilities are not good writers and this puts them at an academic disadvantage and makes them less likely to successfully enter into employment due to their difficulties with written expression. In essence, writing is essential for students with and without disabilities because it is more than a requirement for school, it is also a part of our everyday life.

Although the importance of writing is widely recognized as mentioned above, EFL students, particularly those with learning disabilities, face many difficulties in writing paragraphs and essays. These difficulties include, but are not limited to expressing and organizing thoughts and ideas on paper in a coherent, meaningful, logical and comprehensible way in terms of the genre of the topic they are working with. More specifically, many researchers (e.g., Englert and Raphael, 1988; Gleason, 1999; Graham and Harris, 1989b, 1991; TATN, 2012; Thomas, Englert and Gregg, 1987; Troia, 2007; Wong, 2000) found that students with writing disabilities are characterized by the following:

- They have difficulty expressing their ideas;
- They have difficulty organizing thoughts on paper;
- They have difficulty generating ideas;
- They lose track of the ideas they put on paper;
- They spend too much time on producing legible handwriting and proper spelling;

- **They lack procedural knowledge about the writing process;**
- **They fail to use the appropriate strategies as they are writing; and**
- **They are unaware of specific cognitive writing strategies that assist with writing expression.**

**The aforementioned difficulties experienced by students with learning disabilities at the intermediate level and beyond are attributable, in part, to their difficulties with executing and regulating the writing processes, especially planning, drafting and revising because they write without strategies that can help them carry out these processes (Golley, 2015; Graham and Harris, 1997, 2009; Graham, Harris, and Troia, 1998; Troia, 2007). In other words, they just retrieve-and-write without strategies that help them plan, generate, organize and revise their writing. This cause is expressed by Dean (2010) in the following way:**

**Our experience as teachers shows us that use of effective strategies can be a distinguishing characteristic between experienced and novice writers.... We have probably all observed how students with few strategies approach a writing task; they may begin writing what comes to mind (what Scardamalia and Bereiter call knowledge telling) or they may never complete the writing task.... They have no effective strategies to use. (pp. 4-5).**

**The same cause is expressed by TATN (2012) in the following way:**

**One of the biggest differences between the struggling writer and the more skilled writer is that the struggling writer is less strategic. The struggling writer uses very few strategies and is comfortable with using the knowledge-telling strategy. Also, he/she is reluctant to use unfamiliar strategies or those that require any effort. (Slide 15)**



Similarly, Golley (2015) expresses the same cause in the following way:

**Students with learning disabilities often struggle with writing. They lack the appropriate strategies to use while writing, which leaves them frustrated and unwilling to continue writing. Teachers need to find strategies that will help their students become more engaged and excited about their writing. Finding effective strategies for planning, composing, and revising writing pieces will help students with learning disabilities become more proficient writers.... In order for students with learning disabilities to become better writers, they need to be given appropriate strategies in planning, composing, and revising written pieces. (p. iii)**

**In support of the above-mentioned cause, research showed that struggling writers, including students with writing disabilities, dived into writing assignments without planning or setting writing goals (Wong, 1988, 1994, 2000), wrote without strategies for generating and organizing ideas (Graham and Harris, 2005; MacArthur, Ferretti, Okolo, and Cavalier, 2001), had difficulty self-monitoring their writing (Hacker, Plumb, Butterfield, Quatham, and Heineken, 1994), and lacked strategies for revising what they had written (MacArthur, Ferretti, Okolo, and Cavalier, 2001; Peterson-Karlan and Parette, 2007).**

**Another cause that accounts for the writing difficulties faced by struggling writers in the Egyptian context is that their teachers focus only on discrete skills and value product over process. They teach the students more bits of language and completely neglect the writing process. They also measure their students' writing against criteria of micro-structural elements such as handwriting, grammar, and spelling. Therefore, students spend too much time producing legible handwriting and proper spelling. As they become over involved in producing legible handwriting and properly spelled words, they neglect cognitive strategies that generate and organize ideas and limit the ideas they choose to**

write about. They also focus more on the mechanical revisions, rather than content revision to make their piece look better (Wong, 2000). As Troia, (2007) puts it, “A strong emphasis on mechanics by teachers who work with struggling writers serves to bias their students’ views of writing, leading them to believe that text appearance is paramount” (p. 135). In support of the negative effect of focusing on the micro-skills of writing, Hillocks (1984) found that students in writing programs that emphasized mechanics and grammar achieved significantly lower qualitative gains in writing than students who received instruction that emphasized the organization of ideas and the process of writing. In addition, students taught in the product-driven group came to dislike writing, especially school writing; whereas students in the writing process group developed positive attitudes towards writing.

Still another cause that leads to the impoverished writing performance of students with learning disabilities is that they lack genre-specific strategies that help them organize their ideas and enable them to write cohesive texts (Troia, 2007; Wong, 1997). In support of this cause, Barenbaum, Newcomer and Nodine (1987) found that stories written by students with learning disabilities frequently lack even the most basic story parts such as character and goals. Gleason (1999) also found that students with learning disabilities have trouble with all genres of writing in general and the persuasive genre in particular.

To overcome the writing difficulties experienced by students with learning disabilities, many writing scholars and researchers (e.g., Graham, Bollinger, Booth Olson, D’Aoust, MacArthur, McCutchen, and Olinghouse, 2012; Graham, Harris, and Mason, 2005; Harris, Graham, and Mason, 2006; Troia and Graham, 2002; Troia, Graham, and Harris, 1999) suggest incorporating the teaching of writing strategies and genre-specific strategies within the writing process to enable students with writing difficulties to be effective writers. Harris, Graham, and Mason (2006), for example, state that instruction involving general strategies and genre-specific strategies within the writing process can have

positive effects on the writing performance of students experiencing difficulty learning to write, including those with learning disabilities. Graham et al. (2012) call for the same solution in the following way:

Teachers can help students become effective writers by teaching a variety of strategies for carrying out each component of the writing process and by supporting students in applying the strategies until they are able to do so independently. Over time, students will develop a repertoire of strategies for writing. Teachers should explain and model the fluid nature in which the components of the writing process work together, so that students can learn to apply strategies flexibly—separately or in combination—when they write. (p. 12)

It is also evident from the review of the previous research that the use of writing strategies as an instructional intervention to improve the writing difficulties of struggling writers is firmly established. Previous research found that instruction in writing strategies led to improvements in (a) four aspects of students' writing performance: quality of writing, knowledge of writing, approach to writing, and writing self-efficacy (Troia, Graham, and Harris, 1999), (b) written expression skills for students with writing deficits (Graham and Harris, 1996; 2000; Graham, Harris and Troia, 1998; Graham, Harris, MacArthur, and Schwartz, 1991; Sawyer, Graham, and Harris, 1992), and (c) writing performance of adolescents with learning disabilities (Graham and Harris, 1989a). In addition, meta-analytic reviews revealed that instruction in writing strategies outperformed other approaches in both struggling and typically-developing students at both primary and secondary levels (Graham, McKeown, Kiuvara, and Harris, 2012; Graham and Perin, 2007a; Rogers and Graham, 2008). For example, in a review of studies over the last two decades, Graham and Perin (2007a) found that the effects of strategy instruction across studies was large and statistically significant and that “[e]xplicitly teaching adolescents strategies for planning, revising,

and/or editing had a strong impact on the quality of their writing” (p. 463). Furthermore, research showed that genre-specific strategies enhanced writing in adolescents with learning disabilities (Wong, 1997).

With the above in mind, it appears that students with learning disabilities are in need of embedding writing strategies and genre-specific strategies in the context of a process approach to writing to enable them to use these strategies for carrying out each phase of the writing process, namely, planning, drafting, revising and editing. For each of these phases there are a number of general and specific writing strategies that can assist the students to carry it out successfully. Therefore, teaching students with writing difficulties to use these strategies, through a gradual release of responsibility from the teacher to the student can enable them to clearly express their thoughts and ideas. In this light, the remainder of the present chapter will deal with writing strategies from all aspects. It will also detail a four-phase model for teaching these strategies and review research on their impact on the writing of students with learning disabilities.

## **5.1. Definition of writing strategies**

Some writing scholars and researchers (e.g., Graham et al., 2012; Hedge, 2000; Williams, 2003) view writing strategies as conscious procedures or actions that learners employ to control their writing process. Graham et al. (2012), for example, define writing strategies as “tools that can help students generate content and carry out components of the writing process” (p. 42). That is, within each stage of the writing process good writers use a variety of strategies. They, for example, use strategies such as brainstorming for generating ideas, and webbing for organizing these ideas at the planning stage. The types of strategies good writers use within each stage of the writing process depend on the genre of the topic, purpose of writing and the audience for the writing assignment.

Some other writing scholars and researchers (e.g., Arndt, 1987; Torrance, Thomas, and Robinson, 2000) view writing strategies as stages of the writing process. As Torrance et al. (2000) put it, a writing strategy is “the sequence in which a writer engages in planning, composing, revising and other writing related activities” (p. 182).

It is obvious then that some writing scholars view writing strategies as the techniques writers use to carry out and control the stages of the writing process; while others view the stages of the writing process (particularly planning, revising, and editing) as writing strategies. It seems to the author that the former view is broader than the latter. Therefore, this view (the former one) is adopted by him for developing a multiple-strategies model for teaching writing strategies to students with writing disabilities (See section 5.4 of this chapter).

## **5.2. Classification of writing strategies**

Many different taxonomies of writing strategies have been suggested over years. Some writing scholars (e. g., Geladari and Mastrothanasis, 2011; Wenden, 1991b) classified writing strategies on the basis of cognitive and metacognitive theories of learning. For example, Wenden (1991b) categorized ESL writing strategies into cognitive and metacognitive strategies. According to her, metacognitive strategies are strategies that writers use to control and regulate the writing process and cognitive strategies are those that writers use to implement actual writing. She further states that metacognitive strategies are directly responsible for the execution of a writing task and that cognitive strategies are auxiliary strategies that aid in the implementation of the metacognitive strategies. That is, the function of cognitive strategies is narrower in scope than metacognitive strategies. The metacognitive and cognitive writing strategies identified by Wenden are summarized in Figure 5.1.

**Figure 5.1: Wenden’s cognitive and metacognitive writing strategies (Adapted from Wenden, 1991b)**

Metacognitive writing strategies	Cognitive writing strategies
Planning	(1) Clarification
Evaluation	a. Self-questioning,
Monitoring	b. Hypothesizing,
	c. Defining terms,
	d. Comparing.
	(2) Retrieval
	a. Rereading aloud or silently what had been written,
	b. Writing in a lead-in word or expression,
	c. Rereading the assigned question,
	d. Self-questioning,
	e. Writing till the idea would come,
	f. Summarizing what had just been written (in terms of content or of rhetoric),
	g. Thinking in one’s native language.
	(3) Resourcing
	a. Asking researcher,
	b. Referring to dictionary.
	(4) Deferral
	(5) Avoidance
	(6) Verification

Some other writing scholars (e.g., Chen, 2011; Graham et al., 2012) classified writing strategies on the basis of the basic phases identified by the process theory of writing. Chen (2011), for example, identified twelve writing strategy groups and twenty eight individual strategies across three basic phases of the writing process (pre-writing, writing, and revising). Figure 5.2 below presents these strategies.

**Figure 5.2: Chen’s classification of writing strategies (Chen, 2011, p. 246)**

Stage	Strategy group	Individual strategy
Pre-writing strategies	Metacognitive	Planning, Identifying, Overviewing, Organizing.
	Cognitive	Resourcing, Translating.
While-writing Strategies	Metacognitive	Goal-setting, Self-monitoring, Organizing, Overviewing.
	Cognitive	Repeating, Recognizing, Translating, Resourcing.
	Memory	New-word

**(Figure 5.2 Continued)**

<b>Stage</b>	<b>Strategy group</b>	<b>Individual strategy</b>
<b>Revising Strategies</b>	<b>Compensation</b>	<b>Approximating, Synonym.</b>
	<b>Metacognitive</b>	<b>Goal-setting, Self-monitoring, Paying attention, Identifying.</b>
	<b>Cognitive</b>	<b>Resourcing, Repeating.</b>
	<b>Memory</b>	<b>Keywords</b>
	<b>Social</b>	<b>Teacher-cooperating, Peer-cooperating.</b>
	<b>Affective</b>	<b>Self-rewarding</b>

**Along the previous line of classifying writing strategies on the basis of the basic phases of the writing process, Graham et al. (2012) identified ten writing strategy groups, and twenty three individual strategies across five stages of the writing process: planning, drafting, sharing, evaluating, revising and editing (See Figure 5.3).**



**Figure 5.3: Graham et al.’s writing strategies (Graham et al. 2012, p. 16)**

Stage of Writing Process	Writing Strategy	How Students Can Use the Strategy
Planning	POW	<ul style="list-style-type: none"> <li><input type="checkbox"/> Pick ideas (i.e., decide what to write about),</li> <li><input type="checkbox"/> Organize notes (i.e., brainstorm and organize possible writing ideas into a writing plan),</li> <li><input type="checkbox"/> Write and say more (i.e., continue to modify the plan while writing),</li> </ul>
	Ordering ideas/outlining	<ul style="list-style-type: none"> <li><input type="checkbox"/> Brainstorm/generate ideas,</li> <li><input type="checkbox"/> Review ideas and place a number by what will go first, second, third, and so on,</li> <li><input type="checkbox"/> Decide which are main ideas and which are supporting ideas,</li> <li><input type="checkbox"/> Create an outline that shows the order of the main ideas and the supporting details for each main idea.</li> </ul>
Drafting	Imitation	<ul style="list-style-type: none"> <li><input type="checkbox"/> Select a sentence, paragraph, or text excerpt and imitate the author’s form.</li> </ul>
	Sentence generation	<ul style="list-style-type: none"> <li><input type="checkbox"/> Try out sentences orally before writing them on paper,</li> <li><input type="checkbox"/> Try multiple sentences and choose the best one,</li> <li><input type="checkbox"/> Use transition words to develop different sentence structures,</li> <li><input type="checkbox"/> Practice writing good topic sentences.</li> </ul>
Sharing	Peer sharing	<ul style="list-style-type: none"> <li><input type="checkbox"/> In pairs, listen and read along as the author reads aloud,</li> <li><input type="checkbox"/> Share feedback with a writing partner.</li> </ul>

**(Figure 5.3 Continued)**

<b>Stage of Writing Proces</b>	<b>Writing Strategy</b>	<b>How Students Can Use the Strategy</b>
<b>Evaluating</b>	<b>Self-evaluating</b>	<ul style="list-style-type: none"><li><input type="checkbox"/> <b>Reread and ask these questions:</b><ul style="list-style-type: none"><li><input type="checkbox"/> <b>Are the ideas clear?</b></li><li><input type="checkbox"/> <b>Is there a clear beginning, middle, and end?</b></li><li><input type="checkbox"/> <b>Does the writing connect with the reader?</b></li><li><input type="checkbox"/> <b>Are sentence types varied?</b></li></ul></li></ul>
	<b>Self-monitoring</b>	<ul style="list-style-type: none"><li><input type="checkbox"/> <b>Self-assess and ask these questions, either out loud or internally:</b><ul style="list-style-type: none"><li><input type="checkbox"/> <b>Did I meet the goals I developed for my writing?</b> <b>If not, what changes should I make to meet my goals?</b></li><li><input type="checkbox"/> <b>Did I correctly use strategies that were appropriate for this task? If not, what should I change?</b></li></ul></li><li><input type="checkbox"/> <b>Record your answers to self-assessment questions on a chart or teacher-provided questionnaire in order to track progress toward writing goals and strategy use,</b></li><li><input type="checkbox"/> <b>Congratulate yourself, and inform the teacher, when you meet your goals.</b></li></ul>
<b>Revising and editing</b>	<b>Peer revising</b>	<ul style="list-style-type: none"><li><input type="checkbox"/> <b>Place a question mark (?) by anything you do not understand in the writing partner's paper,</b></li><li><input type="checkbox"/> <b>Place a carat (^) anywhere it would be useful to have the author include more information.</b></li></ul>
	<b>COPS (editing)</b>	<ul style="list-style-type: none"><li><input type="checkbox"/> <b>Ask the COPS editing questions:</b><ul style="list-style-type: none"><li><input type="checkbox"/> <b>Did I Capitalize the first word in sentences and proper names?</b></li><li><input type="checkbox"/> <b>How is the Overall appearance of my paper?</b></li><li><input type="checkbox"/> <b>Did I use commas and end-of-sentence Punctuation?</b></li><li><input type="checkbox"/> <b>Did I Spell each word correctly?</b></li></ul></li></ul>

Still, some writing scholars (e.g., Li-xia, 2016; Mu, 2005) extended the view of writing strategies by taking rhetorics, communication and social constructionist theories into account in their taxonomies of writing strategies in addition to the cognitive-processing theory. Mu (2005), for example, categorized writing strategies into rhetorical, metacognitive, cognitive, communicative, and social/affective strategies, each of which includes substrategies as shown in Figure 5.4 below.

**Figure 5.4: Mu’s taxonomy of ESL writing strategies (Mu, 2005, p. 9)**

Writing strategies	Sub-strategies
Rhetorical strategies	Organization, Use of L1, Formatting/Modelling, Comparing different rhetorical conventions.
Meta-cognitive strategies	Planning, Monitoring, Evaluating.
Cognitive strategies	Generating ideas, Revising, Elaborating, Clarification, Retrieval (getting information from memory), Rehearsing, Summarizing.

**(Figure 5.4 Continued)**

<b>Communicative strategies</b>	<b>Avoidance,</b> <b>Reduction,</b> <b>Sense of readers (anticipating readers' response).</b>
<b>Social/affective strategies</b>	<b>Resourcing,</b> <b>Getting feedback,</b> <b>Assigning goals,</b> <b>Rest/deferral (reducing anxiety).</b>

**Some writing researchers (e.g., Arndt, 1987; Victori, 1995) identified writing strategies based on interviews and think-aloud protocol analysis. Arndt (1987), for example, identified eight categories of writing strategies. These strategies are planning (i.e., deciding what to write about), global planning (i.e., deciding how to organize the text as a whole), rehearsing, repeating, re-reading, questioning, revision, and editing. On the same basis as that of Arndt, Victori (1995) identified seven categories of writing strategies. These categories are: planning, monitoring, evaluating, resourcing, repeating, reduction, and use of L1 strategies. Along the same line, Riazi (1997) classified writing strategies into macro and micro strategies on the basis of students' perceptions of their own writing strategies. He divided students' macro writing strategies into cognitive, metacognitive, and social strategies in addition to a fourth category, "search strategies," he himself discerned. These four macro-level strategies are subdivided into fourteen micro-level strategies as shown in Figure 5.5.**

**Figure 5.5 Riazi's classification of writing strategies (Adapted from Riazi, 1997, p. 122)**

<b>Macro-strategies</b>	<b>Micro-strategies</b>
<b>Cognitive Strategies</b>	(a) Note-taking, (b) Elaboration, (c) Use of mother tongue knowledge and skill transfer from L1, (d) Inferencing, (e) Drafting (revising and editing).
<b>Metacognitive Strategies</b>	(a) Assigning goals, (b) Planning (making and changing outlines), (c) Rationalizing appropriate formats, (d) Monitoring and evaluation.
<b>Social Strategies</b>	(a) Appealing for clarifications, (b) Getting feedback from professors and peers.
<b>Search Strategies</b>	(a) Searching and using libraries (books, journal, ERIC), (b) Using guidelines, (c) Using others' writing as a model.

It is evident that some classifications of writing strategies consider writing strategies as different from the stages of the writing process while others view the stages of the writing process (particularly planning, drafting and revising) as writing strategies. For example, while Victori (1995) and many others regard planning as a strategy, Graham et al. (2012) regard it as a subprocess or a stage of the writing process. Furthermore, some researchers (e.g., Mu, 2005) take rhetorical and communication theories into account while others (e.g., Wenden, 1991b) do not. However, “such multiplicity of categorizations have no doubt helped to build a composite picture of the writers’ behaviours while writing” (Peñuelas, 2012, p. 84).

### **5.3. Benefits of writing strategies**

The importance of writing strategies is widely emphasized in the literature. Many benefits of these strategies have been suggested by various authors and researchers (e.g., Bos, 1988; Cihak and Castle, 2011; Grabe and Kaplan, 1996; Graham and Harris, 1996; Graham, Harris, MacArthur, and Schwartz, 1991; Harris and Pressley, 1991; Santos, 2010; Sawyer, Graham, and Harris, 1992; Schmidt, Deshler, Schumaker, and Alley, 1988/1989). These benefits include:

- Improving the writing of students with and without learning disabilities,
- Providing students with effective ways of overcoming the obstacles that the process of writing tends to pose to any writer,
- Enabling learners to take control of their writing process,
- Increasing learners' confidence as independent writers,
- Facilitating the execution of planning, drafting, and revising the text,
- Helping students discover new ideas, generate appropriate ideas and organize these ideas,

- **Helping students become independent writers,**
- **Offering students with learning disabilities the tools they need to become successful, independent writers,**
- **Developing students' self-confidence as independent writers,**
- **Enhancing motivation and developing positive attitudes towards writing,**
- **Removing writing anxiety,**
- **Promoting students' critical reflection,**
- **Improving the written expression skills for students with writing deficits,**
- **Helping students know their writing strengths and limitations,**
- **Developing a sense of audience for writing,**
- **Allowing teachers to assess students' needs and to offer learning directions based on these needs, and**
- **Creating lifelong authentic writers.**

**To the above-mentioned list, Santangelo, Harris, and Graham (2008) add that writing strategies instruction has been shown to be an effective instructional intervention for students with learning disabilities. They further mention a number of reasons why these strategies are especially beneficial for these students in the following way:**

**First, they help simplify and organize the complex tasks such as planning, generating, and revising text. Second, they define a course of action for successfully completing all, or part, of a writing assignment. Third, they make the mental operations that occur during planning, composing, evaluating, and revising visible and concrete. This is particularly salient because contemporary approaches to writing instruction (e.g., Writer's Workshop) encourage**

students to plan, draft, edit, revise, and publish their written work, yet surprisingly little attention is devoted to explicitly teaching these processes (Graham & Harris, 1997). Finally, strategies enhance students' knowledge about writing genres and devices, the writing process, and their capabilities as writers. (p. 81)

In support of the benefits of writing strategies, many research studies (e.g., Fidalgo, Torrance, and García, 2008; Graham, Harris, and Larsen, 2001; Wong, Wong, and Blenkinsop, 1989) found that writing strategies instruction improved both the quantity and quality of the writing of students with and without disabilities. Fidalgo, Torrance, and García (2008), for example, found that strategy-based instruction potentially impacted student writing beyond a short-term experimental context or classroom. The results of their study provided a “robust evidence that strategy-focused instruction delivered to sixth-grade students results in an increased tendency to pre-plan and in improvements in text quality that persist at least until eighth grade” (p. 688).

Due to the benefits of writing strategies for students with and without writing disabilities, the next section will offer a multiple-strategy model that combines the features of the process approach and the genre approach to teaching these strategies to students with writing disabilities.

#### **5.4. A model for teaching writing strategies to students with writing disabilities**

In this section, the author proposes a four-phase model for teaching both writing strategies and genre-specific strategies for each stage of the writing process through a gradual release of responsibility from the teacher to the student. In this model, the teacher demonstrates the use of the various strategies specific to planning, drafting, revising, and editing (one or more at a time for



each stage) while writing an actual composition. In addition to teaching and modeling general writing strategies, the teacher also teaches and models the genre-specific strategies that fit the writing topic. These genre-specific strategies include argumentating, narrating, comparing/contrasting, and reporting. While modeling, the teacher thinks aloud to draw students' attention to the strategies s/he employs and to the features of the genre under focus. S/he also articulates the purpose of each strategy and explains why s/he uses it. While doing so, the students observe her/his modeling of the writing strategies, listen to her/his thinking aloud, and ask for clarification if they don't understand anything. Next, the teacher provides opportunities for students to use these strategies in the writing process, moving from joint writing in which the students and the teacher work together to construct a new composition of the same genre, to independent writing in which each student writes individually about another topic of the same genre. Finally, the teacher provides opportunities for each student to self-assess her/his writing performance in relation to the writing strategies s/he employed. These four phases are the next topics of discussion.

#### **5.4.1. Teacher modeling of writing strategies**

Teacher modeling is the core of teaching writing strategies because it makes the invisible visible and the implicit explicit to the students. Moreover, it is rooted in theory and research on learning. More specifically, it is rooted in Wood et al.'s (1976) scaffolding theory, Bandura's (1977) social learning theory and Vygotsky's (1978) sociocultural theory.

In support of teacher modeling of writing strategies for each stage of the writing process for students with learning disabilities, many writing scholars and researchers (e.g., Dowell, Storey, and Gleason, 1994; Gambrell and Chasen, 1991; Gleason and Isaacson, 2001; Golley, 2015; Wolf and Gearhart, 1994) note that modeling the writing strategies within the writing process is a core element because simply being exposed to the writing process is insufficient

for most students, particularly those with learning disabilities. As Golley (2015) states, “Teaching students with learning disabilities to use strategies to help them plan and organize their writing will help them become more effective writers and will enable them to clearly express their thoughts and ideas” (p. 20). Writing scholars and researchers further note that explicit modeling of how to write in varied genres should be another ingredient of writing instruction to students with learning disabilities.

With the above in mind, the author’s model begins with teacher modeling of one of the general writing strategies at a time for each stage of the writing process. The teacher also models the genre-specific strategies that fit the topic s/he is working with. While doing so, s/he thinks aloud and verbalizes everything that goes in her/his mind at the various stages of the writing process. During teacher modeling, the students watch, listen and ask for clarification if they don't understand anything. In the suggested model, the teacher modeling phase is divided into four stages as research continually emphasizes that the most successful intervention is using a basic framework for writing that includes planning, writing, revising, and editing. The teacher modeling of general and specific writing strategies at these four stages is explained in details below.

#### **5.4.1.1. Planning**

At this stage, the teacher models how to plan for the topic s/he is going to write about. S/he first of all sets a purpose and identifies an audience for her/his writing. S/he then uses one of the strategies for generating ideas about this topic (e. g., brainstorming, free writing, jotting down notes, etc.). After that, s/he uses one of the strategies for organizing the ideas, s/he has already generated, according to the genre of the topic in action (e.g., webbing, clustering, tree-mapping, Venn diagramming, wheel writing, etc.). While modeling how to plan, the teacher makes the invisible visible by thinking aloud and verbalizing everything

that goes in her/his mind; and the students listen and watch. It is important to note here that the teacher should model all strategies alternately and systematically, one by one in each session over the course, until all are over.

At this stage, the teacher can also model the use of a "Planning Think Sheet" that contains a series of sequential questions as prompts for planning. Examples of these questions are: "Who am I writing for?" "Why am I writing?" "What do I know?" "How can I group my ideas?" and "How will I organize my ideas?" (Englert, Raphael, and Anderson, 1992).

#### **5.4.1.2. Drafting**

At this stage, the teacher models how to elaborate the ideas s/he has generated in the planning stage, to fit the purpose for writing as well as the genre under focus, but s/he may make changes to the plan when it is necessary. While drafting, the teacher places her/his thoughts on a whiteboard or a chart paper and writes without worrying about form. S/he also uses strategies such as self-questioning and asking for clarification where necessary. All this is accompanied by thinking aloud to make the reasoning behind what s/he does explicit. S/he also models genre-specific strategies (e.g., persuading, describing, comparing/contrasting, narrating, informing, explaining, convincing, etc.) depending on the genre s/he is working with, and draws students attention to the procedures of this genre by verbalizing thoughts as s/he writes to make the invisible visible.

#### **5.4.1.3. Revising**

At this stage, the teacher models how to revise her/his first draft. S/he reads aloud this draft to add, substitute, delete, modify, expand and/or rearrange ideas to be more understandable to the reader. While doing so, s/he verbalizes the strategies s/he applies to

help students know what to do when revising their own drafts. S/he also uses strategies such as asking for clarification, self-questioning and sharing the rough draft in a writing group (Mather, Wendling, and Roberts, 2009).

At this stage, the teacher can model the use of a prompt sheet that guides her/him to revise what s/he has written in terms of purpose, audience, and genre of writing. Such a prompt sheet should contain questions such as the following (Poway Unified School District, n.d.):

- **Is my purpose clear to the reader?**
- **Did I clearly maintain for that purpose throughout the essay?**
- **Does all my supporting information clearly relate to my purpose?**
- **Did I organize my ideas to best fulfill my purpose?**
- **Is the level of detail appropriate to the audience (not too general or too specific)?**
- **Are my ideas presented in a logical order that will be evident to the reader?**
- **Did I say what I mean and mean what I say?**
- **Is my tone and style appropriate to the audience?**
- **What misconceptions might readers have of my topic and/or my approach to it? How can I dispel these misconceptions?**
- **Did I follow the genre of the topic I am writing about?**
- **Did I use clear transitions to help the reader follow my train of thought?**
- **Did I maintain balance among my points, developing each to the same extent?**
- **Did I separate ideas into paragraphs with clear topic sentences?**

- **Do ideas flow from one to another in a recognizably organized way according to the genre under focus?**
- **Do paragraphs create a chain?**
- **Is old and new information balanced and manipulated?**

#### **5.4.1.4. Editing**

**At this final stage of teacher modeling, the teacher models proofreading the final draft. S/he proofreads her/his draft and corrects the mechanical mistakes s/he notices and thinks aloud about the reasons for her/his editorial changes. Then s/he asks one of the students to proofread this draft to identify and correct remaining mistakes. As Widodo (2008) states:**

**In editing, students get involved in fine tuning their own drafts as they prepare the final drafts for a product assessment by the teacher. In this regard, the students are required to check minor mistakes related to grammar (i.e., tenses or subject-verb agreements), spellings, punctuations, dictions, and contractions. Thus, the goal of this activity is to produce well-written essays before the students submit the work to the teacher. (p. 104)**

#### **5.4.2. Joint application of writing strategies**

**Armed with a clear understanding of the writing strategies and genre-specific strategies students should use before, during and after writing, they are now ready to work—but not to work independently yet. At this phase, the students and the teacher work together to construct a new text. While doing so, they go through the writing stages of planning, drafting, revising, and editing and use the modeled strategies with a new writing task. The students contribute information and ideas, and the teacher writes the generated text on the board. The teacher can also guide students to co-operate in small or peer groups, to practice applying**

the modeled strategies in a workshop, with her/his assistance and guidance to each group or pair by turn (Badger and White, 2000). During the workshop, the teacher keeps students on track, contributes insight and further knowledge, asks for further elaboration on an idea to encourage students to more fully explore the topic they are working with.

### **5.4.3. Independent application of writing strategies**

At this phase, each student works individually and independently to produce her/his own text. S/he writes on a related topic of her/his choice applying the same processes and strategies modeled and practiced in the previous stages. While doing so, the teacher can move among students to assess students' writing needs and strengths throughout their writing process. If class time is not enough for the completion of this phase, the writing task can be set as a homework.

### **5.4.4. Self-assessment**

At this phase, the student self-assesses her/his writing performance in relation to the strategies s/he employed before, during and after writing. This phase is necessary because it helps the learner to know his own strengths and weaknesses in writing strategies, which in turn motivates further learning. For self-assessment to be effective, according to Boud (1995), students need:

- A clear rationale of this particular activity,
- Explicit procedures of what is expected of them,
- Reassurance of a safe environment in which they can be honest about their own performance without the fear that they will expose information which can be used against them,
- Confidence that other students will do likewise, and that cheating or collusion will be detected and discouraged. (p. 182)

Further, Sturomski (1997) suggests providing students with key questions that can be used as prompts for self-evaluation to draw their attention to reflect upon the strategies used to complete the task. He further suggests that it is important to incorporate the following questions into a self-evaluation sheet for the learners' reference:

- What aspects of the task did I complete well?
- What aspects were difficult?
- Did any problems arise, and what did I do to solve the problems?
- What might I do differently the next time I have to complete a similar task?

In the same vein, Finch and Sampson (2003) suggest providing each student with an assessment tool, such as the one given below, to make it easy for her/him to self-assess her/his own writing in relation to the writing strategies s/he has already used before, during, and after writing.

**Figure 5.6: A self-assessment tool of writing strategies (Adapted from Finch and Sampson, 2003, pp. 82-83)**

Name: -----. Date: -----.	
Title of piece of writing: -----.	
<hr/>	
<b>Before writing:</b>	
1. I talked to a friend or partner about the topic.	Yes <input type="checkbox"/> No <input type="checkbox"/>
2. I made a list of ideas on the topic.	Yes <input type="checkbox"/> No <input type="checkbox"/>
3. I made an outline or thinking map.	Yes <input type="checkbox"/> No <input type="checkbox"/>

**(Figure 5.6 Continued)**

**During writing:**

**4. I skipped words I didn't know and went**

back to them later.

Yes  No

**5. I substituted a word from my own language.**

Yes  No

**6. I used drawings or pictures in my writing.**

Yes  No

**After writing**

**7. I checked to see if the writing met my purpose.**

Yes  No

**8. I reread to see if it made sense.**

Yes  No

**9. I added information.**

Yes  No

**10. I corrected mechanical mistakes.**

Yes  No

**Other strategies I used:**

.....  
.....  
.....  
.....  
.....  
.....  
.....

**The strategies I found most useful for expressing my thoughts were:**

.....  
.....  
.....  
.....  
.....  
.....

**The strategies I found difficult to use were:**

.....  
.....  
.....  
.....  
.....  
.....



**To conclude this section, there are two important considerations that should be taken into account when using the above model to help students with learning disabilities at the intermediate level and beyond to improve their writing. These two considerations are that the teacher should (1) model both writing strategies and genre-specific strategies for each stage of the writing process; and (2) gradually release responsibility to the students. Each of these considerations is discussed in more details below.**

- (1) The teacher should model strategies for each stage of the writing process. The case is very strong that effective writers apply a series of writing strategies selectively and independently before, during and after writing. Therefore, “Teaching them [students with learning disabilities] strategies for each stage of writing will provide them with the opportunity to get through each part with ease” (Golley, 2015, p. 1). Although each strategy may be modeled singly, the teacher should teach students how to coordinate these strategies. As the teacher models and demonstrates the coordinated use of strategies, s/he should use strategies that complete each other and fit the genre of the writing topic. S/he should also teach students how to use different strategies in different contexts and different stages of the writing process. If there are many strategies that can be used for achieving the same purpose within one stage of the writing process like planning; for example, the teacher should model one of these strategies at a time in each session over the course. In support of the effectiveness of embedding strategy instruction in the context of the process approach to writing, Danoff, Harris, and Graham (1993) state that such incorporation of strategy instruction within the writing process helps students to use writing strategies in the context in which they are expected to apply, “increasing the likelihood that they will see the relevance of the strategies and be more likely to maintain and generalize their use” (p. 296). Chalk, Hagan-Burke, and Burke**

**(2005 ) also state, “Many students with learning disabilities (LD) exhibit deficiencies in the writing process. In order to achieve an adequate level of writing competence, these students must apply strategies that enable them to effectively plan, organize, write, and revise a written product” (p 75). Likewise, Graham and Harris (2009) state that the teaching of writing strategies which help students with the stages of the writing process seem to generate marked increases in student writing quality. In support of incorporating strategy instruction within the writing process, Graham and Perin (2007a) found in their meta-analysis of writing instruction that “[e]xplicitly teaching adolescents strategies for planning, revising, and/or editing had a strong impact on the quality of their writing” (p. 463).**

**In addition to modeling general writing strategies, the teacher should also model the genre-specific strategies within the writing process. Each genre-specific text structure should be modeled to the students (one per session) throughout the various stages of the writing process. At the planning stage, the teacher models the use of the graphic organizer that best suits the genre of the topic s/he is working with (e.g., sequential paragraph organizer, compare and contrast organizer, descriptive organizer, cause and effect organizer, etc.). At the drafting stage, the teacher models the development of ideas from the graphic organizer with enough supporting details to fit the genre under focus by using genre-specific strategies (e.g., persuading, describing, comparing/contrasting, narrating, informing, explaining, convincing, etc.). For example, if the topic is argumentative, the teacher should model one of the two main methods of presenting an argument: the balanced view or the persuasive view. The one s/he chooses should depend on how the essay title is worded. If s/he chooses the balanced view, her/his essay should run as follows:**

- a. Introducing the argument to the reader, explaining why it is particularly a relevant topic nowadays with reference to some of the comments that have been voiced on it recently,
- b. Offering reasons in favor of the issue under argumentation,
- c. Offering reasons against the issue,
- d. Summarizing the two sides while pointing out the strengths and limitations of both.

On the other hand, if the teacher chooses the persuasive view, her/his essay should run as follows:

- a. Introducing the argument to the reader, explaining why it is particularly a relevant topic nowadays with reference to some of the comments that have been voiced on it recently,
- b. Offering reasons in favor of or against the issue under argumentation,
- c. Providing evidence that clearly support her/his reasons to align the reader with her/his point of view.

While implementing the procedures of the genre under focus, such as the ones mentioned above, the teacher verbalizes her/his thoughts as well as the genre conventions. At the revision stage, s/he checks to see if the organizational pattern fits the purpose and the genre of the topic.

The teacher should systematically shift from one genre to another. This shift is highly significant until the students know how to apply writing strategies to various writing situations that involve different genres. After modeling and applying the most common types of writing genres, the teacher may move to multigenre topics according to students' needs.

In support of the effectiveness of incorporating genre-specific strategies instruction within the writing process in the regular classroom, Wong (1997) found that teaching students with learning disabilities in the ninth, eighth, and tenth grades how to write three different genres of expository essays (reportive, persuasive, and compare/contrast) over a three-year period (one per year) increased their mean scores for writing clarity and other genre-specific variables (e.g., thematic salience, organization of ideas) from pretest to posttest (For more details of this study, see section 5.5 of this chapter).

- (2) The teacher should gradually release responsibility to the students. The gradual release of responsibility from the teacher to the student lies at the heart of this model. As the model proceeds, the responsibility shifts more and more to the student who eventually ends up with full responsibility. In each writing session, the teacher gradually releases control to enable the student to make progress and gain independence in using the writing strategies. The teacher is in control of the writing event when s/he models and demonstrates for the student. This assistance is withdrawn gradually and systematically passing responsibility to the individual student as s/he gains control and becomes able to work and apply strategies independently. In other words, the teacher shifts gradually from the role of a supporter to the role of a sympathetic audience (Palinscar and Brown, 1984) and the role of the student increases as that of the teacher diminishes. This is exactly the core idea behind scaffolding. Leong, Bodrova, Hensen and Henninger (1999) explain this idea in the following way:

When you build a building, you build a scaffold with the size and shape of the building in mind. In the initial stages, the contractor provides more scaffolding than later, when the walls are established and the foundation is secure. If the scaffolding is removed too early, the building will also suffer. If the scaffolding is not removed, the contractor cannot build another

**building. In teaching, we provide more support at the beginning stages of the skill/concept formation. If we remove the support too early the child may have incomplete or incorrect understanding. If we leave the supports too long, the child will not be encouraged to move on to new learning. (p. 3)**

**With the above in mind, the teacher should make sure that s/he does not release responsibility to the students too early. In some cases, this means that “[t]eachers may need to model an entire strategy or parts of a strategy again before students can work independently” (Graham et al. 2012, p. 17).**

## **5.5. Research on teaching writing strategies to students with writing disabilities**

**The teaching of writing strategies has been demonstrated as an effective writing intervention, by many researchers, for students of all ages and abilities. However, this section only offers a review of writing strategies research in the area of learning disabilities. Graham and Harris (1989a) investigated the effect of story grammar instruction on the story writing of students with learning disabilities. Twenty two students with learning disabilities in the fifth and sixth grades were taught narrative text-structure (i.e. story grammar instruction) in order to improve the overall quality of their stories. The students were instructed in small groups in their resource rooms on these eight story-grammar elements: main character, locale, time, starter event, goal, action, ending, and reaction. The results of the study indicated that, the inclusion of story-grammar elements at posttest, generalization, and maintenance was significantly higher than at pretest for twenty of the twenty two students with learning disabilities. With regard to quality, the students with learning disabilities increased their average scores from 2.14 at pretest to 2.91 at posttest.**

MacArthur, Graham, and Schwartz (1991) investigated the effect of revision strategy instruction on the narratives written by students with learning disabilities. The participants for this study consisted of four classes, who were randomly assigned to an experimental group and a control group. The experimental students received explicit instruction, modeling, and guided practice in the collaborative use of the strategy. The students of the control group used the strategy individually. The paired students also received interaction-instruction (e.g., “Tell the author what the paper is about and what you liked best”). To assess writing and revision quality, two writing assignments were administered as both a pre and post-test. The final drafts were assessed on overall quality and on the number and quality of revisions (content and editing aspects; spelling, use of capitals, punctuation). Revisions were categorized by text level, impact on meaning, and quality. The results of the post-test showed that the peer response students produced texts of higher quality and made more and better revisions than the students who used the strategy individually. Transcripts of peer interactions suggested that the performance of the peer response students was mediated by use of the strategy. All students followed the strategy and gave suggestions for adding information or detail and for improving clarity or organization as well. Results of a metacognitive interview on the knowledge of criteria for good writing indicated that the peer response students demonstrated greater awareness of criteria for evaluating writing.

Danoff, Harris, and Graham, (1993) examined the effectiveness of embedding strategy instruction in the context of a process approach to writing in inclusive classrooms. Through a series of extended mini-lessons during writers' workshop, both students with and without a learning disability were taught a previously validated writing strategy and procedures for regulating the strategy and the writing process. The strategy instructional procedures had a positive effect on the participating fourth- and fifth grade students' writing. The schematic structure

of their stories improved substantially following instruction and remained improved over time and with a different teacher. The quality of what was written also improved for all but two of the students following instruction. Overall, improvements in story quality were maintained and generalized by all of the students, except for the younger fourth graders and one fifth-grade student who failed to maintain quality gains on a generalization probe. In addition, one of the students who had not evidenced quality gains immediately following instruction, wrote qualitatively better stories on the generalization and maintenance probes. Data collected during instruction demonstrated that the best results were obtained when all stages and components of instruction were enacted. Finally, Danoff et al. concluded that “incorporating strategy instruction into a process approach to writing can meaningfully augment students' composition skills” (p. 319).

Stoddard and MacArthur (1993) examined the effects of an approach that integrated strategy-instruction, peer response, and word processing on the revision of narratives of six learning disabled students (age 13-15). Students used a revision strategy consisting of questions which incorporated criteria for evaluation (e.g. “Does the text follow a logical sequence?” “Where could more details be added?”), and an overall strategy for regulating the revision process (a prompting sheet with key words for the revision of meaning and mechanical errors). The students received explicit instruction, modeling, and guided practice in the use of the strategy. They were instructed in rules for regulating the interaction process as well. Pre- and post-test performances on writing and revision tasks were compared. On the pre-tests, the students made few substantive revisions and did not improve the quality of their papers by revising them. On the post-tests all students made more substantive revisions, the proportion of revisions rated as improvements increased from 47% to 83%. Second revised drafts were rated as significantly better than first drafts. Furthermore, the overall quality of final drafts increased substantially from pre-tests to post-tests.

Hallenbeck (1995) adapted the Cognitive Strategy in Writing (CSIW) program, which had been effectively used with elementary students with learning disabilities, to an older population of students. The CSIW embodies three guiding principles: (1) effective writing is seen a holistic enterprise involving the processes of planning, organizing, writing, revising, and editing; (2) teachers scaffold students' use of specific writing strategies; and (3) students write for authentic purposes and real audiences and collaborate with each other. Subjects included seven junior high and high school students with learning disabilities who demonstrated difficulties with written expression. The students learned CSIW and practiced the strategies on two text structures (one requiring explaining a process and the other discussing what they know about a topic) over the course of a school year. Pretest and posttest assessments of overall quality, structure-specific primary traits, paper length, and reader sensitivity indicated improvement in students' writing during the year. T-tests demonstrated that students showed significant improvement on all measures of their writing ability.

Dellerman, Coirier, and Marchand (1996) examined the effects of planning on the argumentative writing of nonproficient writers. They hypothesized that the quality of an argumentative text is dependent on prior planning of the argumentative relationships (logical, thematic, and directional) and the writer's proficiency. They also expected that planning would be most beneficial to nonproficient writers on the basis of the assumptions that planning would improve the organization of information and increase the available cognitive resources for high-level processes. The participants were asked to complete a constrained argumentative composition based on 13 arguments that were provided in 30 minutes. Although there was no global effect of planning on the quality of written texts, the results showed that planning focused on logical relationships had a significant effect on the argumentative texts produced. As Dellerman et al. expected, planning was most effective for nonproficient writers.



**Wong (1997) investigated the effect of genre instruction on the writing of adolescents with learning disabilities. Fifteen students with learning disabilities in the ninth, eighth, and tenth grades were taught how to write three different genres of expository essays (reportive, persuasive, and compare/contrast) over a three-year period (one per year). Within each intervention, during the planning phase, Wong explained the writing process to the students, emphasizing the recursive nature of the various stages of planning, writing, and revising through thinking aloud. Throughout the writing process, students received assistance from members of the intervention team in articulating their communicative intent and ideas, structuring sentences, choosing appropriate words, and spelling. The results of the study indicated that across the three types of essays, the students were able to increase their mean scores for writing clarity and other genre-specific variables (e.g., thematic salience, organization of ideas) from pretest to posttest. Wong gave the following three reasons that contributed to the success of the interventions:**

- (1) Use of one appropriate way of instructing adolescents with learning disabilities and low achievers to write one particular genre,**
- (2) Focused and intensive nature of the writing instruction, and**
- (3) Use of interactive dialogues in conferences between students and intervention researchers that contributed much to the writing enhancement.**

**Gersten and Baker (1999b) conducted an exploratory meta-analysis of experimental and quasi-experimental studies to investigate the research-based instructional approaches to teaching written expression to students with learning disabilities. Expressive writing was defined as writing for the purpose of displaying knowledge or supporting self-expression. The meta-analysis addressed this question, "Given a group of studies designed explicitly for the purpose of improving the writing of students with learning disabilities, which interventions and**

components were found to be most effective, and what is the strength of their effects?" The findings revealed the following three components as ones that reliably and consistently led to improved outcomes in teaching expressive writing to students with learning disabilities:

- (1) Adhering to a basic framework of planning, writing, and revision,
- (2) Explicitly teaching critical steps in the writing process, and
- (3) Providing feedback guided by the information explicitly taught.

De La Paz (1999) investigated the effect of self-regulated strategy instruction on the writing outcomes of students with and without learning disabilities. She taught middle school students with and without learning disabilities a strategy for planning and writing expository texts, using the Self-Regulated Strategy Development (SRSD) model within a general education setting. All of the students were taught how to plan for the writing genre (i.e., expository) and the writing task used on the statewide writing competency test by their general education teachers who followed scripted lesson plans. The intervention included strategies to help students plan in response to the assessment prompt and to encourage them to continue planning while writing their essays. The results of the study indicated that after the intervention, all of the students generated pre-writing plans, and approximately half of the students' plans were appropriately relevant to the topic prompt. All of the students increased the length of their essays, and the students with LD increased the length of their essays by 250 percent. All of the students also doubled and/or tripled the average number of functional expository elements (e.g., premise, reason) present in their essays. These positive gains were maintained four weeks later.

**Troia, Graham, and Harris (1999) examined the effect of planning instruction on the writing of students with learning disabilities. The subjects of the study consisted of three 5th-grade students with learning disabilities. These students were individually taught methods for planning narrative and expository essays over a three-week period. Instruction in the planning strategies followed the Self-Regulated Strategy Development (SRSD) model (Harris and Graham, 1996), and the students were instructed to set goals, brainstorm ideas, sequence their ideas, and complete self-selected homework assignments. The intervention also included the use of acronyms and mnemonics to help students within the planning process. The results of the study indicated that after the intervention, the students dramatically changed their pre-writing planning behavior, and this favorably impacted their writing. Following instruction, the students increased their planning time and devoted as much time to their planning as they did to writing. They also increased the length of their stories and made an average gain of 3.1 points on their story-grammar scores (i.e. inclusion of basic story elements) from 7.1 at baseline to 10.2 at post-instruction (total possible score was 21 points). In addition, they were able to generalize these effects to writing persuasive essays and made an average gain of 3.8 points on the number of functional expository elements present (e.g., premise, line of argument) from 7.0 at baseline to 10.8 at post-instruction. These positive effects were maintained three weeks later.**

**Gersten and Baker (2001) conducted a meta-analysis of 13 intervention studies with students with learning disabilities to determine the impact of writing strategy interventions on the writing of these students and to identify instructional components associated with the best writing outcomes for them. They reported overall weighted effect sizes ranging from 0.41 to 1.17 with an aggregate effect size of 0.81, which represents a large effect favoring the selected interventions, for varied measures of writing**

**including standardized writing tests, quality ratings of student papers, and scores on trait and genre structure rubrics. Based on the results of their meta-analysis, Gersten and Baker identified five components that appeared to be associated with strong positive writing outcomes for poor writers in the set of studies they examined. These components are:**

- (1) Explicit teacher modeling of the writing process and composing strategies,**
- (2) Peer collaboration and teacher conferencing to gain informative feedback,**
- (3) Use of procedural prompts (e.g., graphic organizers, mnemonics, outlines, checklists) to facilitate planning and revising,**
- (4) Limiting barriers produced by poor text transcription (e.g., dictating), and**
- (5) Self-regulation (e.g., self-statements and questions).**

**ERIC Clearinghouse on Disabilities and Gifted Education (2002) conducted a meta-analysis of research on teaching expressive writing to students with learning disabilities. Virtually all the interventions analyzed were multifaceted and involved students writing everyday as part of the curriculum. The meta-analysis identified several themes critical to effective writing instruction: (1) adherence to a basic framework of planning, writing, and revision; (2) explicit instruction of critical steps in the writing process, as well as the features and conventions of the writing genre or text structure; and (3) provision of feedback guided by the information explicitly taught.**

**Chalk, Hagan-Burke, and Burke (2005) examined the effects of the Self-Regulated Strategy Development (SRSD) model on the writing performance of 15 high school sophomores with learning disabilities. Students were taught to apply the SRSD model as a strategy for planning and writing essays and to self-regulate their**

use of the strategy and the writing process. The results of the study indicated that “students benefited from an approach to writing that helped them develop strategies for brainstorming, semantic webbing, setting goals, and revising” (p 86). The repeated ANOVA revealed a significant main effect, indicating that quality improved over time,  $F(10, 140) = 21.5, p = 0.000$ . Follow-up trend analysis revealed a linear trend,  $F(1, 14) = 115.9, p = 0.000$ , with an eta squared explaining 89% of the variance.

Cihak and Castle (2011) investigated the effect of explicit strategy instruction on the writing of students with and without learning disabilities. Forty eighth grade students with and without learning disabilities in an inclusive classroom participated in the study. Five students without disabilities were dropped from the data analysis because of absenteeism during the posttest probe. The intervention targeted expository essays and composing topic, detail, transitional, and concluding sentences. A repeated-measures ANOVA indicated that both students with and without disabilities made significant improvements in expository writing skills as measured on the state’s criterion reference test for written expression. Improvements in the quality of writing emerged after students had received the writing intervention. In pretest analysis, students with disabilities lacked the writing skills of how to create a topic sentence, how to use supporting details, how to use transitions, and how to conclude a composition. In posttest analysis, students with disabilities made significant writing improvements. They demonstrated the skills of writing a topic sentence, supporting the topic with details, using transitions, and effectively concluding the composition. Moreover, students without disabilities made significant writing improvements from pretest to posttest. For both students with disabilities and students without disabilities, the greatest developments between pretest and posttest compositions were paragraph structure. Essays were organized and themes well developed. Compositions including the presence of an introductory sentence and central ideas were expanded coherently using detailed sentences. Transition and

**concluding sentences were also exhibited. Moreover, sentence structure and syntactic variety improved. Overall, students wrote expository essays that were qualitatively better, which were generally free from mechanical errors and language misuse.**

**To sum up, it is evident from the previous research on teaching writing strategies to learning-disabled students that: (1) most research into writing strategies focused almost exclusively on writing strategies in isolation rather than in combination; (2) with the exception of Danoff, Harris, and Graham's study (1993), multiple strategies instruction has not yet been investigated in conjunction with the writing process to determine their combined impact on the writing performance of students with learning disabilities; and (3) there are no studies on the effect of combinations of writing strategies and genre-specific strategies within the writing process on the writing performance of students with learning disabilities.**

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