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# **The Effect of K-W-L Plus Metacognitive Reading Strategy on Tenth Grade Students' Reading Comprehension and Attitudes**

أثر تطبيق استراتيجية القراءة لما وراء المعرفة  
(KWL Plus)  
على مستوى طلاب الصف العاشر واتجاهاتهم حولها

by

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## **Abstract**

### **The Effect of K-W-L Plus Metacognitive Reading Strategy on Tenth Grade Students' Reading Comprehension and Attitudes**

The present study quasi-experimental study examined the impact of the K-W-L Plus metacognitive reading strategy on tenth grade students' reading comprehension and attitudes. Two main questions were addressed to accomplish the aim of the study which are:

Q.1. What is the impact of K-W-L Plus metacognitive reading strategy on tenth grade students' reading comprehension?

Q.2. What are students' attitudes toward the use of (K-W-L Plus) metacognitive reading strategy in the experimental group?

The sample of the study consisted two intact classes (N=54) and were divided into two experimental group and control group. The experimental group received the K-W-L Plus strategy instruction, while the control group received the conventional reading instruction. Two instruments were implemented to collect data which are pre and post reading comprehension test to measure the students' reading comprehension and an attitude questionnaire to get their attitudes towards the use of K-W-L Plus reading strategy. The results of the study revealed that implementing the K-W-L Plus metacognitive reading strategy had a positive impact on students' reading performance. In addition, the students in the experimental group had a positive attitude towards the application of K-W-L Plus reading strategy. Based on these results, implications and recommendations for further research were put forward.

## ملخص الدراسة

أثر استخدام استراتيجيات ما وراء المعرفة المستخدمة على تنمية الفهم القرآني لطلاب الصف العاشر واتجاهاتهم.

تهدف هذه الدراسة إلى التعرف على أثر استخدام استراتيجية ما وراء المعرفة ( KWL Plus ) على تنمية الفهم القرآني لطلاب الصف العاشر واتجاهاتهم حولها. حيث تضمنت الدراسة سؤالين أساسيين وهم:

- 1) ما هو أثر استخدام استراتيجية ما وراء المعرفة ( KWL Plus ) على تنمية الفهم القرآني لطلاب الصف العاشر؟
- 2) ما هي اتجاهات الطلاب حول استخدام استراتيجية ما وراء المعرفة ( KWL Plus ) في المجموعة التجريبية؟

للإجابة على أسئلة الدراسة؛ استخدم الباحث تصميم شبه تجريبي، وقد شملت عينة الدراسة على 54 طالبا من طلاب الصف العاشر بمعهد العلوم الإسلامية بمسقط للعام الأكاديمي 2020/2019. تم تعيين إحدى المجموعتين كمجموعة تجريبية طُبقت عليها استراتيجيات ما وراء المعرفة في تدريس الفهم القرآني، والأخرى مجموعة ضابطة استخدمت لها الطريقة التقليدية لتدريس الفهم القرآني.

وقد تضمنت أدوات الدراسة اختبارا للفهم القرآني والذي تم تطبيقه قبليا وبعديا على المجموعتين لقياس التطور في الفهم القرآني بعد تطبيق استراتيجيات ما وراء المعرفة التي استغرقت اسبوعين، ومقياسا للاتجاهات للتعرف على اتجاهات الطلبة نحو استخدام استراتيجيات ما وراء المعرفة في قراءة النصوص الأكاديمية لدى طلبة المجموعة التجريبية.

ويمكن تلخيص نتائج الدراسة كما يلي:

توجد فروق ذات دلالات إحصائية بين المجموعة التجريبية والضابطة في تطور مستوى الفهم القرآني و كانت النتيجة لصالح المجموعة التجريبية.

كان لدى المجموعة التجريبية اتجاه إيجابي نحو استخدام استراتيجيات ما وراء المعرفة في محاضرات القراءة. وفي ضوء هذه النتائج، عرض الباحث عدد 1 من التوصيات والمقترحات المتعلقة بالموضوع.

## **Dedication**

To the one, whom I gain determination and faith from,  
To my source of inspiration,  
For love, patience, dedication, and trust,  
Because 'you' always believe in my success.

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## **Chapter One**

### **Introduction**

#### **I.1 Background of the study**

Standards-based education has been a great concern to several academic interested parties constituting educational institutions, supervisors, societies, and students (Briley, Thompson & Iran-Nejad 2009). Aligning educational strategies, curriculum instructions, and measurement techniques of academic bodies with defined standards leads to effective standards-based education (Al-Mashani 2011). Mainly, accomplishing these standards can be attained through students' skill to meet the aimed learning outcomes (Al-Mashani 2011).

Reading is an essential instrument for students to acquire and learn any language. Also, it is viewed as the main part in the construction of the learning and teaching process (Lismayanti et al. 2014). Hence, it is fundamental that students boost their reading abilities to understand the learning process. Constructing meaning from the context is being a vital process in the reading comprehension (Barros Ferrer 2018; Cooper et al. 2014; Woolly 2011). Thus, it is believed that reading comprehension plays an indispensable role in foreign /second acquires learning. Accordingly, using efficient strategies is essential to ameliorate students' reading comprehension. Improving the reading performance and achievement of English language learners through effective comprehension strategies is a recent topic in education nowadays (Calderon et al. 2011; Ness 2016; Olson 2014). Consequently, applying particular reading strategies enables more proficient use of time and an easier and more constant period of reading (Florian & Scott 2009; Kahneman & Egan 2011).

Besides, since reading has an intimate relationship with knowledge transmission and expansion, it has become a fundamental skill in academic settings (AlSeyabi & Tuzlukova 2015). Moreover, Knowing and implementing effective reading strategies enables positive results across various educational settings (Linquanti 1999). Accordingly, students can use several reading strategies in the field of second language learning to boost learning and enrich comprehension.

Due to reading complexity as a language skill, Grabe and Stoller (2002) emphasize that being skillful in reading is really a solid task. Many second language learners struggle to understand

content of academic subjects because of their poor reading background, which impedes their academic achievement. As to Snow (2002) and Eskey (2005), a lot of students, while reading academic texts in English, face language difficulties that halt them from insufficient comprehension levels. One of the problems that academic second language learners encounter is their incapability to comprehend and apply reading strategies. Tavakoli (2014) asserts that readers often struggle to develop their reading since they lack reading approaches, including self-planning, self-monitoring, self-controlling, and self-assessing. In several ESL and EFL areas, interests have been raised regarding students' unpreparedness to meet up with the reading demands, mainly where English is the dominant medium of instructions (Al Seyabi & Tuzlukiva 2015; Sivaraman & Al Balushi 2014).

In addition, effective readers perform metacognitive strategies to stimulate previous knowledge and experiences prior the reading. Through the prior knowledge and experiences, readers make deduction, connections and questions while reading, and evaluate these inferences, connections and questions (Blachowicz & Ogle 2017; Hogan 2013). Al-Salmi (2005) claims that the key aspect of improving students' reading comprehension is not only developing metacognitive strategies but their effective use, too.

K-W-L plus is considered as a metacognitive strategy in reading that was launched and developed by Ogle in 1986 (McNamara 2012; Salvin 2011). It stands for What I know, What I want to know, What I learned (Ogle 1986). Lately, it was modified by Ogle by adding (plus) to the term which refers to the last phase, which is providing a summary for what has been read (Ogle 2007).

## **I 2. Statement of the problem**

Reading is a vital skill that eases second language learning and fosters the improvement of other features of language. It is not a multidimensional exercise, nor a direct action in which information is identified [letter-by-letter, word-by-word, and then sentence -by-sentence] ( Eckert 2008; Smith 1973), but it is a two-way cognitive process that requires the involvement of the text, the reader, and the interaction between both (Chen 2015). As to Makhtari and Reichard (2002), the academic goals achievements depend on students' skill to become tactical readers who apply an array of learning methods containing metacognitive reading strategies. Yet, previous research in second

language learning has revealed that the vast majority of English second language readers face challenges in implementing effective reading techniques because they are not aware of these techniques or they don't use them appropriately (Yore, Craig & Maguire 1998). Furthermore, researches have shown that some readers, who are proficient in their mother tongue, fail to effectively employ the reading strategies when reading in a second language (Hung 1992).

Readers who lack metacognitive awareness have a propensity to spend more time to comprehend difficult words rather than guessing meaning from linked text. According to Mokhtari and Sheorey (2002), sustaining metacognitive reading strategies and using them appropriately prompts students to be more involved, interactive, and responsive to assigned materials. O'Malley and Chamot (1990) highlighted that 'metacognitive approaches are essential for learners to plan their learning and monitor their development or review their future directions. Likewise, Sheorey and Mokhtari (2001) mentioned that 'experienced readers have the ability to reveal and monitor their cognitive processes while reading'. Similarly, Zhang and Seepho (2012) showed that metacognitive strategies are central for effective second/foreign language readers. Based on these results, it is indispensable for ESL learners to highlight the significance of metacognitive reading strategies to establish better academic outcomes.

In Oman, The Ministry of Education in the Sultanate has provided various reading comprehension strategies to all English textbooks "*Engage with English*" and "*English For Me*". Yet, it is noticed that Omani students are still facing problem in reading comprehension because the English curriculum lacks the effective implementation of metacognitive strategies. There is an array of studies which were carried out in the Omani context and that show that Omani students are low performers in English language skills particularly reading (Al-Issa & Al-Bulushi 2011; Al-Hajri 2010; Al-Mahrooqi 2012). These studies stated that the major cause was the curriculum content and the teaching techniques.

### **I 3. The Omani Context**

The current study is conducted in one of the institutes which are under the authority of Sultan Qaboos Higher Centre for Culture and Sciences in Oman. There are six institutes in different places around the Sultanate, including (Muscat, Salalah, Al-Buraimi, Ibri, Al Suwaiq and Jalan Bani Bu

Hassan), and they follow the same education system of the Ministry of Education. Therefore, the study is conducted precisely in one of the institutes where the researcher works.

#### **I 4. The Research Rationale**

Snow (2002) and Eskey (2005) discuss the fact that many students have language difficulties stemming from inadequate comprehension levels while reading texts in English. Part of the problem second language learners face is their inability to understand and implement reading strategies. Tavakoli (2014) states that readers facing difficulty often struggle to improve their reading as they lack reading strategies. Therefore, diverse strategies should be implemented since reading is a very sophisticated task and covers abundant cognitive processes (Salvin 2011). Besides, reading comprehension can be improved through the effective application of metacognitive strategies.

Even though the findings of many researches gear towards the significance of metacognitive reading strategies to promote the proficiency of a foreign language, particularly K-W-L Plus strategy, few studies have been conducted in the Sultanate to investigate its effectiveness on Omani learners. Herewith, this research adds a value to the field of exploring such strategies and if there is any effect of K-W-L plus metacognitive reading strategy on grade 11 male students' reading comprehension at school level.

#### **I 5. Study Purpose**

This study seeks to inspect the effective implementation of (K-W-L Plus) metacognitive reading strategy on reading comprehension of grade 10 male students and their attitudes toward using this strategy.

#### **I 6. Research Questions**

The study attempts to answer the following research questions:

1. What is the impact of implementing (K-W-L Plus) metacognitive reading strategy on the reading comprehension of grade ten students?
2. What are students' attitudes toward the use of (K-W-L Plus) metacognitive reading strategy in the experimental group?

## **I 7. Significance of the Study**

The results of this study may support curriculum designers to boost the English textbooks with a diverse metacognitive reading strategies. As well, it may assist teachers recognize various techniques to teach metacognitive reading. Hence, instructors can then implement metacognitive reading strategies in classrooms. Also, it helps instructors realize the vital role of metacognitive reading strategies in facilitating students' comprehension. Furthermore, it motivates and inspires investigators of educational fields to conduct further studies in this scope. Add to that, it can be implemented to prepare school students to better level for higher education to decrease the number of students who enroll in the foundation programs. Moreover, it provides educators with a clear guideline to plan for teaching reading based on various metacognitive techniques.

## **I 8. Research Limitations**

In the present study, the research sample is targeting only male students and Basic education institutions. Also, the sample is selected only from one institute in Muscat Governorate and it is restricted to a small number of participants (54). In addition, the experiment is conducted solely within two weeks with a total of (10) classes. What is more, K-W-L Plus metacognitive reading strategy is only used in the research. Furthermore, the reading comprehension test is limited to multiple choice questions, so students may get the answers correct by a chance.

## **I 9. Conceptual Framework**

The following are the main terms used in the current research:

### **Metacognition**

Tanner (2012) defines metacognition as the knowledge and control of someone's own learning. It includes two characteristics which are self-regulation and self-assessment. Self-regulation refers to assessment, planning, and controlling one's techniques while reading. Whereas, self-assessment contains self-reflection about one's knowledge and skills.

### **Reading Comprehension**

It refers to the ability to build up the meaning explicitly and implicitly from a written text. According to Mangen, et.al (2013), it includes three parts which are learner's prior knowledge, text and the context in which the text is read.

### **K-W-L Plus Strategy**

According to Lismayanti (2014), K-W-L Plus is a reading interacting technique in which readers attain information mainly from written readings. The K refers to “What I know”, the W stands for “ What I want to know” and L refers to “What I learnt”. Following that, students provide a summary about what they learned.

### **I 10. Layout of the Study**

This study is divided into the following five chapters. The first Chapter describes the context of the study and presents the problem statement, the research questions, its purpose, its significance, its limitation and definition of key terms. The second Chapter discusses the body of literature relevant to the present study. The third Chapter describes in detail the research methodology (instruments and tools to gather data). The fourth Chapter provides analysis of the study results. The fifth Chapter presents a conclusion and summary of the study findings along with some recommendations.

## **Chapter Two**

### **Literature Review**

#### **II 1. Introduction**

This chapter is dedicated to the discussion of the theoretical and empirical underpinnings of the present study. In the theoretical part, models of the reading process, reading comprehension strategies, Metacognition, Schemata Theory, Self-Questioning, Self-Regulation, Strategy Instruction, scaffolding and K-W-L Strategy are presented. The second part highlights related empirical studies on K-W-L plus metacognitive reading strategy.

#### **II 2. Theoretical Background**

##### **II 2. 1 Models of the Reading Process**

Reading is a calculated procedure in which several skills and processes are required to enable learners engage in the text information, choose key information, arrange and analyze information, monitor understanding, mend comprehension breakdowns, and align comprehension outcomes to reader' aims (Grabe 2009). Under the umbrella of this multifaceted process, many researchers have come up with three distinctive reading models including the bottom-up, the top-down, and the interactive. In these three approaches, learners use diverse sources to monitor the reading process (Al-Khamisi 2014).

##### **II 2.1.1 The Bottom-Up Model**

In this model, the reader starts from low level processes (e.g., explaining linguistic cues) to higher level (e.g., giving meaning). The reader identifies letters, words and sentences in linear logical way through extracting information from written page (Kazemi, et al. 2013 & Harmer 2006). This model relies mainly on the approaching letter, word, and text. Therefore, the reader' capability to read is aided by word recognition skills. As to Dehaene (2009), the reader concentrates to point out letters characteristics, connects these characteristics to identify letters, integrates letters to distinguish spelling patters, links spelling patterns to identify words and finally reveals sentences structure and conveys meaning to shape large syntactic parts such as paragraph and texts (Harmer 2006 & Kazemi 2013).

Nevertheless, the [unidirectionality] of the bottom-up model has been interrogated by several ESL investigators and theoreticians. To exemplify, contradicting the idea of the hierarchical

organization of the text, Andrews (2008) noticed that experiments have revealed that words can't be identified more quickly than letters at the word-recognition stage and the letters are paralleled. Moreover, students have been revealed to utilize syntactic information to guess the meaning of the unknown words. According to Kintsch and Vipond (2014), the linear view of the reading process neglected the fact that comprehending letters, words, and sentences relies on [high level of cognitive processes]. They found out that understanding counts on four aspects of knowledge including the learner's awareness of the [orthographic structure], semantic and syntax, and pragmatics. This model was criticized by many researchers who were motivated to investigate the top-down model and the interactive model (Esteve & Codina 2005).

### **II 2.1.2 The top-down Model**

In this model, readers are guided by their goals, assumptions and anticipations about the reading text and the consequent confirmation of these anticipations which vigorously monitor their reading comprehension (Smallwood 2011). While reading, the information moves from the reader to the text by producing assumption and utilizing background knowledge and experience to infer meaning. For instance, learners expect what will come later, examines his expectations and makes changes. Turning to decoding letters and words which happens when comprehension breaks down. In this model, the learner' previous knowledge of the next text turns to be critical since this knowledge enables to create meaning and basically facilitates comprehension (Kazemi et al. 2013; McNamara 2009). Additionally, this model pays attention to high level processing through incorporating text information to rectify vagueness, connecting text notions, initiating schemata and amalgamating information with previous knowledge (Esteve & Codina 2005).

The top down model has been criticized by several researchers and investigators. For example, Duke and Pearson (2009) and Stanovich (2000) mentioned that creating assumptions for subsequent words in reading text consumes more time compared to the decoding process. He discussed that recognizing words and letters is easier than making predictions and examining them while reading. Another evidence opposing the top down model brought by Urquhart and Weir (1998), who investigated context clues implementation when processing a reading text.

Despite the huge number of criticisms which this model has received, it pays attention to the cognitive processes utilized by learners to convey meaning. It is worth mentioning that explaining some skills as lower-level can be automatically developed and applied by skillful readers. According to McNamara (2009), describing a model which presents reading as completely bottom-up or top-down process is no longer applicable. Eloquent readers integrate both models' features as they are incorporated in syntactic analysis skills and word recognition.

### **II 2.1.3 The Interactive Model**

The interactive model has offered a balance between the two reading models (the top-down and the bottom-up). It considers the reading process as an interactive reciprocal process in which higher-level and lower-level function concomitantly or alternatively (Lewis & Bastiaansen 2015; Nation 2009).

Reading is an interactive process between the reader and the text in which the reader engages his previous knowledge to the text information to infer meaning (Nation 2009). This indicates that text comprehension is explanatory, as the learner' previous knowledge fosters understanding. Moreover, the interaction occurs between lower-level and higher-level processes. Therefore, decoding and interpreting skills are required in order to understand a text.

### **II 2.1.4 Reading Comprehension Strategies**

Reading comprehension is considered as an ultimate part of learning English as a second/ foreign language. Still, many second language learners struggle to deduce meaning and understand information since comprehension is miscellaneous and complex process (Larson-Hall 2015; Suskie 2018). Reading comprehension is an interaction process in which readers build and draw out meaning from written texts. It includes the interaction of the reader's prior knowledge, the text and the context (Blachowicz & Ogle 2017). It often requires the readers' engagement to solve the meaning of the anonymous words, and identify the key ideas in the passage. Teaching these strategies supports initial understanding through expanding interaction between the reader and the text (Larson-Hall 2015; Suskie 2018). Ness (2011) found out that informing readers of the metacognitive reading strategies helps comprehending the text and therefore encourages ESL/EFL learning.

O'Malley & Chamot (1990) highlighted that gaining effective understanding is amalgamated with students' awareness and implementation of proper learning strategies. Many studies have examined the challenges that ESL/EFL students encounter in reading comprehension. The main reason was attributed to the ineffective application of reading strategies (Al-Kiyumi 2017). According to Afflerbach et al. (2008), reading strategies are 'deliberate, goal-directed attempts to control and modify the reader's efforts to decode texts, understand words, and construct meaning of text'. Effective readers are active and concentrated during the reading process (Armbruster et al. 2001). During the reading process, students make sense of what they read through utilizing 'their experience and knowledge of the world, their knowledge of vocabulary and language structure, and knowledge of reading strategies' (2001, p.51).

Comprehension is formed more possibly through strategic reading (Goodman 2014; Taboada & Rutherford 2011; Woolley 2010). Day (2002) indicated that 'learners might not understand a reading text by sudden. Little Comprehension happens if the reader is not conscious of the text, not intending to infer meaning from it, or not committing intellectual effort to create knowledge. Pikulski and Chard (2005) considered strategic reading as the ability to utilize a strategy effectively and integrate its usage with other strategies. Knowing solely the strategy is inadequate, a learner must also be able to implement them purposefully.

In Oman, Al-Mahrooqi (2012) examined the Omani students' low proficiency in reading skill at schools. The findings showed that some educators never taught any reading strategies and others taught them coincidentally. Moreover, instructors should implement various reading strategies to enhance student' proficiency in reading. Furthermore, the study pointed out the importance of investigating how language is qualified at schools in EFL atmosphere. Similarly, Al-Najari (2016) raised that one of the central matters in second language learning is translating the philosophy of curriculum into reality.

## **II 2.2 Theories**

There are some theories that underpin this current study including metacognition, schemata theory, self-questioning, self-regulation, instruction strategy and K-W-L plus Strategy.

### **II 2.2.1 Metacognition**

Flavell (1976) is the one who hypothesizes and operates the theory of metacognition. He defines cognition as "one's knowledge concerning one's own cognitive processes and products or anything linked to them". Remarkably, metacognition has become an intense focus, thus, the number of experimental studies that inspect and explore the practice of metacognitive strategies in learning and teaching has promptly increased. As to Anderson (2002), El-Koumy (2004) and Serran (2002), educational investigators have recently started to pay attention to reader's strategies and the function of metacognition precisely. Though, the findings that have been found upon using such strategies were diverse i.e. several studies presented substantial outcomes and other studies didn't achieve any noteworthy results (Jackson 2008). In reading comprehension, K-W-L strategy is supported by number of studies and developed by Ogle (1986). According to Graham and Harris (1993), the most fundamental factor to measure the efficiency of strategy instruction is the achievement of its implementation in schools. Moreover, the main target of K-W-L plus strategy is improve students' reading comprehension. Teachers can also expand learners' thinking and promote more positive perceptions towards using K-W-L Plus (Graham & Harris 1993).

### **II 2.2.2 Metacognitive Reading Strategies**

Learning strategies can be defined as 'specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situation' (Griffiths 2004). Furthermore, Al-Kiyumi (2017) put forward that learning strategies are techniques that readers utilize to contribute in the progress of their language system. These strategies enable students to provide proper responses to particular leaning situations, and learn something more effectively.

In her study, Oxford (1990) categorized learning strategies into two groups which direct and indirect. The direct strategies includes compensation strategies, memory strategies and cognitive strategies, on other side, indirect strategies consist of social strategies, metacognitive strategies and affective strategies. The present study essentially focuses on metacognitive reading strategies precisely the K-W-L Plus reading strategy. These strategies concentrate on the mental processes utilized via readers which demand direct analysis, transformation, or synthesis of learning materials ( O'Malley and Chamot 1990). They support learners to repeat, predict, summarize, use context hints, deduce meaning, analyze and practice (Al-Kiyumi 2017).

Previous studies have noted that there is a positive effect of cognitive learning strategies on effective ESL/EFL language learning (Ranta 2014). As the mental growth of learners rises, the importance of cognitive strategies increases. That is, as physical growth takes place, older students tend to develop more cognitive strategies than young students.

According to Anderson (2002), metacognitive process are ‘thinking about thinking’ and ‘the ability to make one’s thinking visible’. Vandergrift (2002) also highlighted the fundamental role of metacognitive strategies ‘because they oversee, regulate, or direct the language learning task, and involve thinking about learning process’. Readers have to be metacognitively aware of what they are doing. Also, readers can combine more than one metacognitive process at one time to assist them during a learning activity (Marimuthu et al. 2011).

### **II 2.2.3 Schemata Theory**

Bartlett (1932) was the first to use the term scheme (plural schemata) referring to prior or background knowledge. The theory emerged in the 1970s based on Bartlett’s work in explaining the role of background knowledge in language learning.

As a skill that predominantly relies on comprehension, reading has been closely linked to schemata theory. The role of schemata in the reading process has formed the basis of many studies examining why readers fail or succeed in comprehending a written text. Murray (1980) as cited in Murphy (1988), explained three ways by which schema influences comprehension. Firstly, schema aids information recall and information storage. Second, it discards irrelevant information and can modify recall after reading. Third, schema relies on the assumption that there is an independent mechanism which mainly focuses on particular sets of information.

For schemata theorists, reading comprehension occurs through the interaction between the reader’s prior knowledge and the text. Therefore, textual information which is linked to the learner’s knowledge and experience, and linguistic knowledge are both necessary to comprehend a reading text. As to Zhang (2010), ‘the act of comprehension and one’s knowledge of the world are inseparable’. Hence, expanding comprehension relies on a person’s own knowledge and experience background. According to Bruer (1994), a schema helps learners create reasoning, make conclusion and maintain implicit information from the text. Besides, he highlighted that using context clues and stored knowledge in schemata aids a reader to infer implicit information.

Bruer (1994) proposed six basic techniques that schemata function to ease comprehension. First, they present scaffolding for comprehending a text. Second, they come up with the basis for careful attention which readers pay to various sections of a text relying on skill. Third, they allow readers to generate assumptions using information apart from the exact text input. Fourth, schemata enable the systematic research in reader's mind for related information. Fifth, readers are adept to summarize and change the lately received information through utilizing schemata amalgamate it with the current schema. Sixth, they assist readers to make conclusion further the implicit text' level.

Several types of schemata must be highlighted to improve a better comprehension of the schemata function in the reading comprehension process. Rumelhart (2017) and Anderson (2000) made a comprehensible difference between the two core types of schemata which are the content schemata and the formal schemata. A formal schema is the organizational forms and rhetorical structures of various types. On the other hand, the content schemata is the prior knowledge of the content area of the text. It entails the cultural knowledge of the reader and his awareness of the text topic (An 2013 & Rumelhart 2017). Alderson (2000) suggested that guessing events and deducing meaning from the text occurs through the readers' background knowledge of formal and content schemata. To exemplify, each kind of reading texts (e.g. letters, scientific articles, and stories) maintain diverse organizational structures. Retaining knowledge of these genre structures reinforces the reader to make guesses about the text and ease comprehension. Al-Issa (2006) concluded that content schemata is more effective on comprehension than formal schmeat, i.e., expansion text awareness causes great comprehension as it is easier to stimulate relevant information.

Efficient comprehension entails the reader's connecting new information to previously stored information in the brain. By bridging the new information with the already existing, unfamiliarity is lessened, interest is provoked and prediction in reading is improved (Ruiz 2015 & Zhao & Zhu 2012). Schemata theory is relevant to this study as activating prior knowledge represents one of the three main areas of K-W-L Plus strategy and aids in improving reading comprehension. Stafford (2012) argued that readers who have well- developed schemata perform far better at reading comprehension compared to their counterparts who have less sophisticated schemata.

#### **II 2.2.4 Self-Questioning**

Self-questioning is one the influential metacognitive techniques which learner can utilize. According to Mostow and Chen (2009), self-questioning can guide learners' focus to new information. Janssen (2002) and Joseph, et.al (2016) include that some researches prove that generating questions is useful for students to develop their comprehension of a text. As to Andre and Anderson (1978-1979), a self-questioning method encourages readers to assign goals before reading, make questions and answer those questions. Ogle (1986) states that developing questions results in recognizing readers' own goals of reading, monitoring comprehension and improving self-commitment which will direct their reading. King (1992) mentions that readers generate questions when self-questioning provides a way of utilizing the readers' cognitive processes.

Further from students' use of self-questioning technique, they can also practice self-questioning instruction. Berkeley et.al (2011) pointed out two types of self-questioning instruction. The first one refers to writing questions before reading. In this type, learners are inspired by pictures, titles, and subheadings to produce questions. This approach supports learners to make purposes for reading and promote them to make anticipation of the context. The second type is writing questions after the process of reading. This type can develop the comprehension monitoring skill of a reader.

#### **II 2.2.5 Self-Regulation**

The concept of self-regulated learning has become crucial to many educators, investigators and learners. Zimmerman (2008) states that self-regulated learning is viewed as a fundamental part of students' academic accomplishment in classroom environment. As to Oxford (2016), self-regulation reading processes enable learners to set goals, choose effective reading technique, maintain comprehension of the text and assess the development toward accomplishing the goals. According to Stevens (2017), Learners of self-regulation retain certain features. For example, self-regulated learners are able to manage, master, and assess their cognition, motivation, and behaviors. They are knowledgeable about their abilities, learning tasks, learning techniques, and content. They also know when, how, and why to implement knowledge in a precise setting. Furthermore, they are highly motivated and possess a high degree of self-efficacy, e.g., they have confidence in accomplishing a definite task. Schunk and Zimmerman (2007) state that students should utilize metacognitive processes to assess their understanding, which makes them good readers and self-regulated students. This self-regulated understanding is also named

metacognition. In the metacognition process, learners use their previous knowledge, make anticipation and report what has been read.

### **II 2.2.6 Scaffolding**

Scaffolding is an instructional strategy that is originally underpinned by the sociocultural theory of Lev Vygotsky and its concept of ZPD (Zone of Proximal Development). To him, ZPD is the area in which learners can perform a task by themselves and the next learning stage where they need help from a knowledgeable or rather competent source such as a teacher. ESL scaffolding classrooms serve each student the desired learning based on their ZPD. This means it facilitates their already existing knowledge and adding pieces of new information to be able to move to the next learning level of the language. Accordingly, the more students get chances of scaffolding, their learning retention expands and the teachers' role declines as they are able to build their own linguistic ability individually. Providing supportive learning atmosphere for students is one of the positive aspects of scaffolding as learners are allowed to ask questions, give feedback and assist their classmates to learn new materials. Furthermore, integrating scaffolding in learning atmosphere helps educators to become mentors and facilitators rather than dominating the content of the whole lesson. This teaching method motivates students to be active in the class to perform their own learning. What is more, scaffolding provide students with opportunity to take responsibility of teaching and learning processes as they

### **II 2.2.7 Strategy Instruction**

Providing learners with some sort of training in implementing some strategies makes them become better readers. Spörer, et al. (2009) states that strategy instruction is about informing learners when and how to utilize strategies, to aid them recognize effective techniques and inspire them to apply such strategies regularly to become tactical reader.

Educators can teach students a number of reading strategies. Salataci (2002) indicates that explicit and integrated strategy instruction can be practiced by teachers. Strategy instruction increases learners' knowledge of the effective techniques. As well, it can provide students with plenty chances for practice, self-monitoring and self-evaluation. Spada (2007), Nassaji and Fotos (2011), and chamot (2005) support that explicit instruction is very influential in teaching first language and second language. Apart of students' learning schema, instruction can ease their metacognition

and provide strategic behavior to improve their reading performance. Darling-Hammond (2008, suggests that providing students with strategy training supports them to learn better.

Schraw & Gutierrez (2015) stated five central types of strategy instruction, only three parts of metacognitive knowledge are connected to strategy instruction. The first type is Declarative, in which educators provides students with a definition of the strategy. The second one is procedural, it is when the aim and advantages of the strategy are clarified to students. The third type is conditional, which describes how the strategy is applied and provides clear examples by utilizing think-aloud method. Think-aloud refers to the clarification and modelling of the processes of a strategy. Describing when and where the strategy should be implemented occurs in the fourth stage. In the fifth stage, students are shown how to assess the impact of practicing a strategy.

### **II 2.2.8 K-W-L Plus Strategy**

K-W-L strategy is abbreviation for (What I know, what I want to know, and what I learnt). It was first proposed by Ogle in 1986. In this strategy, students trigger their background knowledge, set goals to read by making questions and record the text information. K-W-L plus strategy was developed then by Carr and Ogle in 1987. As to Lismayanti (2014), this strategy helps students to review their learning as they plan, list, and summarize what they learnt one they finish the column 'what I learnt'. Fengjuan (2010), mentions that K-W-L plus strategy is viewed as a self-evaluation tool which motivates learners to evaluate their own metacognitive knowledge.

The K-W-L plus strategy is the main focus in this current study. This strategy is easy and straightforward which can be implemented with textbooks and can engage all learners even the inactive ones. Ogle 1986, proposes that learners' thinking becomes approachable through writing on the K-W-L plus chart and they can reflect on the learning amount which has taken place.

### **II 2.2.9 The Purpose of K-W-L Strategy**

As to Tok (2013) and Sinambela, et.al (2015), K-W-L strategy supports instructors to assign and recognize any Lerner misunderstandings about any topic prior the teaching process. Moreover, it can aid learners to discover their background knowledge and build up new knowledge about the reading text. What is more, it can assist them broaden their metacognition abilities as

well. Besides, it can allow learners evaluate and monitor their understanding of the text. Learners can become encouraged and concentrate on the topic to attain more knowledge about the text.

To understand the K-W-L Plus strategy, some stages need to be followed Tok (2013) and Martinez (2004), recommended the implementation of the following stages.

### **Stage K – What do I know?**

Before the reading stage, the instructor should motivate learners to brainstorm what they already know about the text they are reading and write down their knowledge on the column **K** (see Appendix). This helps teachers to recognizing learners' misunderstandings about the text and evaluate their background knowledge. Add to that, learners who have little knowledge can boost their comprehension prior reading the **K** stage.

### **Stage W – what do I want to learn?**

While reading, students are encouraged to ask questions which they are looking answer for and they should write them in column **W**. Ogle 1986, states that implementing this step helps learners raise self-commitment that directs their reading. Also, students can provide questions which come to their minds while reading. Learners are required to read the text and guided to explore answers to questions.

### **Stage L – What did I learn?**

During or after reading the text, learners write down what they have learned in column **L**. As well, instructors should motivate students to jot down some ideas which they find interesting while reading the text. Then, educators should discuss what students have written in column **L**. after that, learners are urged to reflect on what they have studied and summarize the knowledge attained from the text. Mapping and summarizing techniques develop learners' skills to make connections and clarify what was learnt. Teachers then advice learners for further reading if they can't find answers for their questions.

### **II 3. Review of Related Studies**

This part analyzes, discusses and critiques studies that pay attention to reading metacognitive strategies to identify what has been discussed about applying K-W-L plus strategy as well as look at the differences and similarities of the studies' findings.

A recent quantitative study was conducted by Kusumaningrum and Widiyanto (2018) to explore the effectiveness of KWL strategy on students' reading comprehension performance. Pre-test and post-test were used to collect data from sixty-four EFL learners. The participants were divided into two groups (control and experimental). While the controlled group had the usual way of teaching reading, the experimental group was taught the exact reading passages following the K-W-L strategy. The results showed that the students who received the K-W-L strategy of the experimental group were better than the students of the controlled group in reading comprehension skills. Furthermore, the study argues that teachers can implement different reading strategies when they work as monitors to facilitate students' reading skills. Their role includes encouraging students to use their background knowledge to pave understanding.

Another recent investigatory study on implementing K-W-L strategy in teaching reading comprehension for learners of English in Indonesia was carried out by Utami (2017). Thirty twelve graders at a school participated in the study. Data were collected using multiple data instruments including a reading comprehension test, class observation, in-depth interview, students' questionnaires and book analysis. Using descriptive statistics, Utami revealed that KWL strategy can develop the students' reading comprehension skills in different areas, including finding the main idea, detailed information, inference, word meaning, and references. It was also found that the strategy helps teachers to involve their students by activating their existing knowledge. This in turn improved learners' retention. Therefore, the study recommended using K-W-L strategy in teaching reading comprehension.

As to Fengjuan (2010), he carried out an experimental study to discover how using KWL into ELT classes is efficient in giving insights into their writing production and find out the learners' perceptions towards using the strategy. The control group practiced the traditional teaching method, whereas the experimental group used the KWL scheme. The study findings suggested that most of participants had better attitudes towards the integration of K-W-L strategy into ELT. The

study gives its valuable weight as it implies the success of integrating strategies across language skills. For Fengjuan, students were able to determine what they already know, what they want and what they have learnt and accordingly implement this into their written production.

Touching the active application of K-W-L strategy in reading comprehension actively, Hamdan (2014) conducted a study to set out the effective use of K-W-L strategy on the performance of tenth male graders in reading comprehension. Similar to the previously mentioned studies, the findings show that K-W-L strategy was effectively boosting the performance of reading comprehension.

Likewise, an experimental study was carried out by Lismayanti, et al. (2014) to examine whether students' reading comprehension performance was improving in English language learning by the effective use of K-W-L (Know, Want, and Learn) strategy. The findings of the study highlighted that the achievement of reading comprehension can be enhanced by the efficient implementation of KWL strategy. The study further made an analogy to teaching reading comprehension without inciting the students' metacognition and stating forward that efficient teaching should be empowered by useful strategies.

Correspondingly, Al-Farsi (2009) conducted a quasi-experimental study that explored whether using K-W-L strategy has a considerable improvement on students' reading comprehension or not, and to find out the learners' attitudes towards using this strategy. The study covered 9<sup>th</sup> grade learners from a public basic education school in the Sultanate and the findings demonstrate that the implementation of K-W-L strategy is likely to increase students' reading comprehension ability. Moreover, the students' attitudes towards the use of K-W-L reading strategy show a positive preference over teaching reading classes without using the strategy.

A similar study was conducted by Khaira (2015) on the use of KWL strategy to develop reading comprehension. Tests, observations, and questionnaire were used to collect data. KWL strategy was found to solve students' issues in reading as instructors support learners' participation and interaction in classroom. Thus, this helps students to find out their interests and needs and aid their knowledge.

Similarly, a quasi-experimental study was conducted by Al-Khateeb and Idrees (2010) to explore the influence of implementing KWL strategy on reading comprehension for girls of grade ten in

Ma'an town. The researchers applied pre/posttests as an instrument to collect data from (80) secondary school learners who were divided to experimental group and control group. The experimental group was taught KWL strategy, while the control group practiced the traditional method of teaching reading. The researcher determined the effect of KWL and traditional techniques by calculating the averages and standard deviation. The findings of the study showed that there is a significant difference between the two groups. The difference was attributed to the implementation of KWL strategy. This study is worth mentioning as it deals with school level of students but different in genders as this current study targets male students.

Another study which discussed the same topic is (Priyono 2010). This research sought to investigate the effect of KWL strategy on students' reading comprehension. Qualitative and quantitative data were collected. The quantitative data were gathered through the implementation of pre and posttest, whereas the qualitative data were collected through interviews, observation and questionnaire. Descriptive statistics and constant comparative method were used to analyze both sets of data. The findings reveal that KWL strategy improves learners' reading comprehension. Also, students are more stimulated and feel interested to attend the reading classes. Add to that, the students were more interactive with each other as they worked in groups. This study provides the current study with worth information regarding the effectiveness of using KWL strategy to enhance learners' understanding in reading skill.

Another research which supports the development of students' reading comprehension through the implementation of KWL strategy is Katmono (2012). His study targeted grade ten students in AL Muhammadiyah school. He used his study on 19 students who were selected from two cycles. Three tools were utilized to collect data including test, observation checklist, and questionnaire. The findings of the study revealed that KWL strategy can develop learners' understanding as they were active during the teaching and learning process. The researcher recommended instructors to use KWL strategy to boost students' reading comprehension. Accordingly, using this study in the present research is worthy as it deals with school students.

In his study, Yuniarti (2013) studied the effect of utilizing K-W-L strategy on students' reading performance. All eleven graders in 2012/2013 participated in the study. The research followed a mixed qualitative and quantitative design. Classroom observation and collaborators' discussion was conducted to collect the qualitative data while the researcher implemented pretest and posttest

to attain the quantitative data. The attained data were taken through field notes, interview transcripts and the students' results from the pre-test and post-test. The researcher implemented sample T-test to analyze the quantitative data. The analysis of the reading comprehension test scores revealed that the mean score of the pre-test was 70.5 while the mean score of the post-test was 82.5. This means that there is a significant difference at  $p < 0.05$ . The findings of the study revealed that K-W-L reading strategy supported educators to foster learners' understanding of the reading passage through paying attention to the stages before, while, and after the reading process. In addition, the K-W-L reading strategy assist learners to have a general look at reading text, evaluate what they learnt after the reading, and trigger their curiosity to read. Add to that, the different types of tasks provided to students helped them to read the reading passage effectively. Based on the findings of the study, implementing K-W-L reading strategy impacted students' reading performance positively.

By the same token, Haryanto (2019) conducted an experimental research to explore the effective use of K-W-L Plus reading strategy in supporting students to perform well in reading. The sample of this study consisted all college students in the second year at SMAN University in Bemgkulu in the academic year 2019. Two intact class were selected randomly and assigned to experimental group and control group. The results of the study indicated that the students who received the K-W-L Plus strategy instruction performed better than the students who received the usual way of teaching.

In the same way, Handayani (2018) carried out a research to examine the impact of utilizing the K-W-L Plus reading strategy on students' reading performance. The research design of the study was experimental. The population of the study covered all seven graders in Muhammadiyah city in 2019. Two intact classes were selected randomly which included of 52 learners. They were distributed to experimental group and control group. The control group had 27 learners while the experimental group had 25 learners. A reading comprehension test as conducted as a main tool for collecting data. The researcher used sample T-test to analyze the collected data. The findings of the study indicated that implementing the K-W-L Plus reading strategy had an effective impact on students' performance in reading after the intervention. In the end of the study, instructors are recommended to use the K-W-L Plus reading strategy in teaching English.

Similarly, Katmono (2012), investigated the effect of K-W-L reading strategy on developing students' reading level in reading. The population of the study included all ten graders in 2012/2013 and the sample included 19 learners. An observation checklist, pre and posttest, and questionnaire were conducted as tools to collect data. The results of the study showed that utilizing the K-W-L reading strategy can develop learners' reading performance. This can be figured out from the analysis of the test scores as the mean score was 73.59 in the pre-test. The mean score of the post test was 80.39 which is higher than the mean of the pre-test. What is more, the results of the questionnaire revealed that learners showed interest and were active during the implementation of the K-W-L strategy. Some recommendations were provided in the end of the study as English instructors are advised to utilize the K-W-L reading strategy as an option in teaching reading skill.

Also, Amelia and Kamalasari (2018), Andriani (2017), Mahdi (2018), and Yanti (2017) agreed that the K-W-L Plus metacognitive reading strategy has a considerable influence on boosting students' reading comprehension. They found that students were active through the implementation of the experiment and show a clear interest in applying this strategy in any reading text.

However, regardless of the effective use of KWL on reading comprehension performance, Ibrahim (2012) contradicts the previous studies' findings. In his study, he argued that learners with no previously existing knowledge encounter difficulty to follow the stages of KWL strategy which results in lower comprehension performance. Similarly, Al-Ataie (2010) found out that many learners didn't use questions in completing the W part, yet, they used their mother tongue when they found it difficult to clarify what they wanted to know in English. Both studies are compatible enough with Zarei et al. (2012) who disputed that metacognitive reading strategies aid comprehension. Though confirming that the learners in the experimental group scored higher in their total school achievement, there were no significant differences in the post-test compared to their counterparts taught the same content without metacognitive strategy intervention.

Likewise, Stahl (2008), in here study, there were three instructional techniques that were investigated which are KWL, Directed Reading Thinking Activity (DRTA) and Picture Walks. She provided clarification about the three instructional strategies and mentioned the studies that support that methods. Her study seeks to answer three main questions; what are the impacts of

PW, DRTA, and KWL on the reading comprehension? What are the impacts of PW, DRTA, and KWL on the reading growth of beginner readers? And how these processes ease the transformation of the acquisition of the experience-based system to text-based one. There were 31 grade two students who participated in the study and divided into eight groups of four. The result showed that students used DRTA method more than PW and KWL methods to recall information and find answers to questions. Accordingly, DRTA technique has a major impact on students' reading development. However, KWL strategy didn't have any impact on students' reading improvement and 86% of them reflected that PW and DRTA eased their reading fluency.

Similarly, Amelia and Kamalasari (2018) examined if there is a significant effect of applying the K-W-L Plus reading strategy on learners' reading performance. The population of the study covered all second class learners in Kampar. Two intact classes were randomly selected as the sample of the study. The total number of the sample was 56 learners. The researcher conducted sample T-test by using SPSS program (version 22) to analyze the collected data. The study's findings indicated that there is a significant effect of using the K-W-L Plus reading strategy on students' reading level as the t-value was 0.216.

Correspondingly, Farah and Rohani (2019) led a research on the effective use of the K-W-L Plus reading strategy on developing learners' comprehension performance in reading. A multiple reading comprehension test was carried out to collect data. The sample of the study two intact classes consisted of 72 students from grade eleven in Negeri Kudus. They were randomly assigned as experimental group and control group. The data were collected through pre-test, intervention, and post-test. The findings of the study found that the learners' engagement and interests increased while the implementation of the K-W-L Plus reading strategy. Yet, based on the results of the Sample T-test, the results revealed that there was no significant impact between the experimental group and control group.

As mentioned above, plenty of studies have been carried out in the area of practicing K-W-L plus strategy language environment for teaching reading comprehension. Many studies have confirmed that the effective use of K-w-L plus takes part in the development of students' reading comprehension and their positive attitudes as well. Yet, the findings are believed to be incompatible and untrustworthy due to the limitations of the sample size and the reliability and

validity of the instruments used. Consequently, conducting more studies in this field is highly recommended. Herewith, this study is going to add a value to the literature review by examining the impact of K-W-L plus strategy on EFL male students' reading comprehension.

#### **II 4. Conclusion**

This chapter provided an overview of the metacognition and reading comprehension field. It has shed the light on the importance of the schemata theory and its effect on the reading comprehension. Moreover, it explored some significant strategies including, self-regulation, self-questioning, and strategy instruction. Additionally, presenting the KWL plus reading strategy is central since it is the main study' focus. Furthermore, some related studies were discussed as they support the researcher in the analysis and discussion section.

Based on the thorough discussion of the above mentioned theories and related studies on the effect of the metacognitive strategies to foster students' reading comprehension, this study contributes to the body of literature in investigating ESL learners' cognition and attitudes when approaching reading texts in the Omani schools.

## **Chapter Three**

### **Methodology**

#### **III 1. Introduction**

This chapter provides a description of the methodology used to carry out the current research. It includes discussing the population and sample, the instruments implemented to gather the data, the reliability and validity tools, and the process of gathering and analyzing data.

#### **III 2. Population and Sample**

The population of this study covers all ten male graders in Muscat governorate during the academic year 2019-2020. Two intact classes from grade ten were randomly selected by the researcher. Therefore, the sample consisted of 54 students. The researcher assigned the two classes as an experimental group and the other as the control group. Each group consisted of 27 students.

#### **III 3. Research Design**

A quasi-experimental study was used in which quantitative data were collected from both the experimental group and the control group. The control group was taught the usual way of teaching reading, while the experimental group was taught employing the K-W-L Plus reading strategy. Equally, the two groups studied similar reading resources in their textbook "English for Me", which is issued by the Ministry of Education. The experiment was run over two weeks, five lessons a week with each lesson lasting for 45 minutes with a total of 7.5 hours. The control group had the normal way of teaching, which was based on "read, answer and check" form, whereas the experimental group practiced the (K-W-L Plus) metacognitive reading strategy (*See Appendix C*). Both groups were taught by the same teacher of English who was trained to use the strategy by the researcher for two days.

The researcher used (SPSS) program to analyze the data gathered by the research tools. To give an answer to the first question, the mean and standard deviation were implemented to find out whether there was a difference in the students' comprehension between the experimental and control group in the pre-test. An independent sample T-test was used to analyze the learners' performance in the post-test for both groups. The researcher also used descriptive statistics (means and standard deviation) to analyze learners' attitudes towards the use of K-W-L Plus reading

strategy. Moreover, a paired T-test was applied to determine if any significant difference existed between the two groups in the pre/post-tests.

### **III 4. Research Instruments**

#### **1. Reading comprehension pre and post-tests**

The reading comprehension test was implemented to answer the first question of the research (What is the impact of implementing K-W-L Plus metacognitive reading strategy on the reading comprehension of grade twelve students?). This test was constructed by Al-Farsi (2009) (*See Appendix A*). The test contained three reading passages and twenty four multiple-choice questions to be completed within 25 minutes. The reading passages were taken from the students' reading card used in "*English for Me*" syllabus. The test was designed to test students' comprehension using direct questions which did not require retaining information from the test. The pre-test is carried out before the implementation of K-W-L plus strategy. The test overall score was out of twenty-four. One mark was given for each correct answer for the multiple choice questions, and a zero for wrong or missing questions.

##### **1.1 Reliability and Validity of the Comprehension Test**

It has been argued that the concepts of reliability and validity continue to be applicable for achieving consistency in qualitative research (Morse et al. 2002). Accordingly, reliability can be defined as the consistency of results over periods of time and the true representation of the entire population in the study. Validity, however, is all about whether the research instrument truly measures what it is intended to measure and determines how true the research results are (Golafshani 2003). Accordingly, Al-Farsi (2009) validated this test using seven jury members consisting of two supervisors and five teachers in the EFL field. Furthermore, to ensure reliability, a split-half technique was conducted to check the correlation of the test, which revealed a significant Pearson correlation of 0.72; therefore, the test has a high level of reliability.

**2. Learners' Attitudes Questionnaire:** To answer the second question of the research (What are students' attitudes toward the use of (K-W-L Plus) metacognitive reading strategy in the experimental group?), an attitude questionnaire towards applying K-W-L Plus reading

strategy was used. The fifteen items questionnaire was originally developed by Al-Farsi (2009) (*See Appendix B*).

### **2.1 Reliability and Validity of the Attitudes Questionnaire**

To validate the students' attitudes questionnaire, Al-Farsi (2009) used a jury of six academic members from Sultan Qaboos University to assess how relevant and clear the items were. The reliability co-efficient of the questionnaire was established using the Alpha Cronbach technique and was found to be 0.74, which indicates high level of reliability.

### **III 5. Administering the Pre-Test**

The pre-test was carried out to both experimental and control groups at the same time, and all the papers were corrected by the researcher. There was a second marker to establish validity. The learners' performance in the test was analyzed using the independent sample T-test.

### **III 6. Application of the Experiment**

#### **1. Experimental Group**

The experiment was conducted on 27 students. The first class was dedicated to explain the significance and aims of K-W-L Plus metacognitive reading strategy to the students before the beginning of the implementation. The students were taught via the K-W-L Plus metacognitive reading strategy every day for two weeks. Prior the start of each class, the teacher asked the students to remind him about what they knew about K-W-L Plus reading strategy and why they used it. After that, each student was given the K-W-L Plus chart (*See Appendix C*). Then, the learners were required to do the first step, which was skimming the reading text and looking at headings and photos. They started to write what they knew in the **K** column. The teacher motivated students to reveal what they already knew about the text based on their background knowledge. Next, the students were asked to write what they wanted to learn from the text by forming questions in the **W** column. Then, the students were asked to read the text in detail and complete the **L** column which indicates what they have learned from the text. After that, the learners were encouraged to draw a map or summary of what they understood (*See Appendix F*). The teacher went around the

whole class to check students' summaries and mapping and stimulated them to read again to complete the mapping. The teacher gathered the charts after each class to comment on them.

During implementing the experiment, the teacher functioned as a monitor and guide to accomplish certain tasks. The teacher clearly explained how KWL plus strategy was used and the goal of using it. He also guided the students to practice the KWL plus strategy. What is more, the teacher provided the students with opportunities during the class time to practice the strategy by themselves in order to increase their self-monitoring and self-evaluation. The teacher facilitated this task using holistic and individual corrective feedback to check the appropriate application of the strategy and therefore valid comprehension outcomes.

## **2. The Control Group**

The control group, which consisted of 27 learners, was taught the conventional method of teaching reading classes. The learners applied the regular reading strategies of skimming, scanning, and answering the reading comprehension tasks. Using the regular reading strategies only differed from K-W-L Plus metacognitive reading strategy in the implementation method. Both groups implemented skimming, scanning, and reading and answering comprehension questions. Yet, the students in the experimental group used the K-W-L Plus metacognitive strategy. Likewise, the experimental and control group received the same reading materials and were taught within the same period of teaching time. In the context of the current research, the K-W-L Plus metacognitive reading strategy instruction was the basic difference between both groups (The experimental group learnt the K-W-L Plus metacognitive reading strategy instruction, whereas the control group did not).

The process of the traditional method went through the following steps. Firstly, the teacher asked the students to skim the reading texts to get the main idea of the text. Secondly, the learners' prior knowledge was stimulated by the teacher. Lastly, the learners were asked to scan the reading texts to complete the comprehension activities in the course book. The comprehension activities were mostly WH-questions, matching words with meaning, and matching headings with the reading text paragraphs.

### **III 7. Procedure**

In order to complete the present study, the researcher:

- 1) reviewed the related literature to attain a deep insight about the topic.
- 2) prepared pre and post reading comprehension test to be administered to the experimental group and control group before the start of the experiment.
- 3) prepared a questionnaire to explore the experimental group students' attitudes towards the application of K-W-L Plus reading metacognitive strategy.
- 4) established validity and reliability of the pretest/ posttest and the attitude questionnaire.
- 5) assigned two classes to function as a control group and an experimental group to implement the intervention. .
- 6) administered the pretest to both groups (experimental and control) to assess the students' reading comprehension performance before the intervention.
- 7) trained a teacher of English to conduct the K-W-L Plus reading strategy to the experimental group.
- 8) provided an orientation class for the experimental group prior to the intervention to explain the purpose of the strategy.
- 9) conducted the experiment during the first semester of the academic year 2019-2020 for two consecutive weeks.
- 10) administered the post-test to the experimental and control group after the experiment.
- 11) administered the attitude questionnaire to the experimental group immediately after the post-test.
- 12) analyzed the collected data from the post reading comprehension test and the attitude questionnaire to answer the two study questions.

### **III 8. Summary**

Details of the research methodology was provided in this chapter. It put forward details of the research design, the target population and sample, the instruments implemented to collect data and the stages conducted in the study. The following chapter highlights the results attained along with the interpretation and analysis based on the related literature and study context.

**Summary of chapter Three Methodology**

1	Research question one:	What is the impact of implementing K-W-L Plus metacognitive reading strategy on the reading comprehension of grade twelve students?
2	Research question two:	What are students' attitudes toward the use of (K-W-L Plus) metacognitive reading strategy in the experimental group?
3	Research design	Quasi-experimental.
4	Population	Grade 10 male students in the Islamic institutes following the Ministry of Education in Oman.
5	Sample	Two intact classes from grade 10. Each of the experimental and control group has 27 students.
6	Instruments	1) Reading comprehension test (pre and posttests). 2) Attitudes questionnaire towards the implementation of the strategy.
7	Validity of the reading comprehension test	Seven jury members consisting of two supervisors and five teachers in the EFL field.
8	Reliability of the reading comprehension test	A split-half technique was conducted to check the correlation of the test, which revealed a significant Pearson correlation of 0.72.
9	Validity of the attitudes questionnaire	A jury of six academic members from Sultan Qaboos University to check items relevance and clarity.
10	Reliability of the attitudes questionnaire	The reliability co-efficient of the questionnaire was established using the Alpha Cronbach technique and was found to be 0.74.
11	The experiment	The experiment was run by a trained teacher over two weeks, five lessons a week with each lesson lasting for 45 minutes with a total of 7.5 hours.

## Chapter Four

### Results and Discussion

#### IV. Introduction

This chapter shows the results of the current study. It puts forward the data collected through the implementation of the two study tools, which are the reading comprehension test and the attitudes questionnaire. The first tool (reading comprehension test) was applied to find answer to the first question while the second tool (attitude questionnaire) was implemented to find answer to the second question.

#### IV 1. The Reading Comprehension Test Analysis

##### 1.1 The Reading Comprehension Pretest

Table (1) shows the mean differences in the reading comprehension pre-test for the experimental and control groups.

**Table (1)**  
**(Independent Sample T-Test)**  
**Means and Standard Deviations for the Experimental and Control Groups' Pretest Scores**

<b>Group Statistics</b>						
Groups	N	Mean	Std. Deviation	Std. Error Mean	T-Value	Sig. (2-tailed)
Experimental	27	14.70	3.950	.760	1.042	.302
Control	27	13.56	4.145	.798	1.042	.302

Table (1) shows that there is no statically significant difference in the mean of the pre-test results between the control group and the experimental group. The experimental group attained a mean score of (14.70) which is similar to the control group which obtained a mean score of (13.56). The students in both groups scored just above the average in the reading comprehension test as the majority attained between 13-14 correct answers out of 24 total questions. The results hence

indicate that the T-value is 1.042, which is not significant at the 0.05 level. Moreover, based on the results, the experimental and control groups have the same reading comprehension level prior the intervention. Therefore, the two groups are homogenous in terms of their performance in the reading compression test.

### 1.2 The Reading Comprehension Post-test

To answer the first question of the research (What is the impact of implementing K-W-L Plus metacognitive reading strategy on the reading comprehension of grade ten students?), a post reading comprehension test was administered at the same time to both groups (experimental and control) after implementing the experiment. To compare between the pre- and post-test results, an independent sample T-test was conducted. Table (2) shows the results of the independent t-test sample of the mean scores in the post-test for both experimental and control groups.

**Table (2)**  
**The Means and the Standard Deviations for the Experimental and Control Groups’**  
**Pos-test Reading Comprehension Scores (N=54)**

<b>Group</b>	<b>N</b>	<b>M</b>	<b>Std. Deviation</b>	<b>df</b>	<b>T.value</b>	<b>Sig. (2-tailed)</b>
<b>Control</b>	27	13.7407	4.68707	52	4.670	.000
<b>Experimental</b>	27	18.6296	2.76166	42.111		

Table (2) indicates that the difference between both groups in the mean scores of the post-test is statistically significant as the T-value appears to be (4.670). This is significant at the 0.05 level in favor to the experimental group. The mean score for the experimental group showed a value of 18.6296, which is higher than the mean score of 13.7407 obtained by the control group. This indicates that the K-W-L Plus reading strategy had a positive effect on the learners’ reading comprehension of the experimental group. The majority of the experimental group students were able to improve

their reading comprehension performance in the post test compared to almost exact performance shown by the students in the control group. Therefore, it might be valid to attribute their improvement to the taught strategy during the two weeks period. It also donates that teaching the students to use metacognitive reading strategies of K-W-L when approaching any given reading comprehension passage contributed to the high marks the students attained in the post-test. This result is consistent with the results of many studies (Al-Farsi (2009); Kusumaningrum & Widiyanto (2018); Utami (2017); Fengjuan (2010); Hamdan (2014); Lismayanti, et al. (2014) which indicated that using K-W-L Plus metacognitive reading strategy is effective in improving the learners' reading comprehension performance. Hence, it shows that the K-W-L Plus reading strategy is more useful in teaching reading comprehension texts at Omani schools than the usual way in which students read the text and answer the questions that follow.

#### **IV 2. The Attitude Questionnaire Analysis**

In order to answer the second question of the current study which is (What are students' attitudes towards the use of K-W-L Plus metacognitive reading strategy in the experimental group?), the researcher implemented an attitude five-scaled questionnaire (including: strongly agree, agree, natural, disagree and strongly disagree) to the experimental group after conducting the experiment. The aim of the questionnaire was to explore the students' attitudes towards the implementation of K-W-L Plus reading strategy in teaching the reading texts. The researcher used descriptive statistics (mean and standard deviation) to analyze the data collected. The results were analyzed using the following scale:

**Low = 1.0 – 3.4**

**Average = 3.5 – 4.4**

**High = 4.5 – 5.0**

**Table (4)  
Means and Standard Deviation of the Attitude Questionnaire**

<b>Item</b>	<b>Mean</b>	<b>SD</b>
1)Helped me to activate my prior knowledge and experiences about the topic of the text.	4.09	.949
2)Helped me identify purposes for reading texts.	4.00	.798
3)Made me aware of useful reading strategies.	4.60	.498

4)Made me willing to use those reading strategies regularly in the future.	4.50	.508
5) Helped more willing to read English texts.	4.09	.494
6) Helped me to think and generate many ideas while reading texts.	4.63	.490
7)Helped me to practice self-questioning while reading texts.	4.43	.504
8) Made me enjoy the reading lessons.	4.04	.825
9) Helped me to organize my ideas while reading the texts.	4.60	.498
10) Helped me distinguish between facts and opinions.	4.22	.736
11) Helped me to think critically while reading texts.	4.35	.982
12) Helped me question the writer's opinion.	2.73	.625
13) Made more self-confident while reading the texts.	4.46	.571
14) Helped me monitor my comprehension while reading the texts.	4.04	.976
15) Helped me have positive attitudes towards reading.	4.20	.550
Total	4.17	.726

Table (3) shows the means and standard deviations of the learners' responses to the implementation of the K-W-L Plus reading strategy in the experimental group. The high mean for the overall attitudinal responses to the K-W-L Plus reading strategy was 4.17 with standard deviation of ,726. This implies that the majority of the students in the experimental group had a positive attitude towards the strategy implementation. The highest mean score was 4.63, for the item, 'K-W-L Plus strategy helps me to think and generate many ideas while reading texts'. This indicates that the K-W-L Plus reading strategy supported students' comprehension through looking at the reading text' headings, structure and pictures, which as to Bolter (2001), affords various clues. Moreover, students' prediction of the reading passage's features involving titles, subtitles and goal, helps them attain a deeper understanding of the reading passage because they integrate

its content into their schema. As students get exposed to the reading passage and its elements, they make meanings using their previously acquired knowledge which supports their understanding of the new reading text, thus they decide how to approach it. Eventually, comprehending the passage structures, meaning of the text title, headings and subheadings, basic words, charts and tables, assist readers to successfully access the information in a text (Charney 2001; Israel 2007; Pressley 2002).

The high to average means of most items suggest that the students realized the effective influence of the strategy throughout the three reading stages (pre, during, post). This reveals that the K-W-L Plus reading strategy supports the students in developing their comprehension of the process of linking text information to their existing schema and raises their awareness of the effective use of the reading strategy in teaching reading passages. Several studies (Al-Gharibi 2016; Al-Kiyumi 2017; Henter 2014; Iwai 2011; Jacobs & Paris 1987) have affirmed that providing readers with metacognitive reading strategies can develop students' independence, self-monitoring and self-evaluation. Similarly, Gordon and Lu (2008) indicated that learners can be more independent and confident through utilizing learning strategies in reading including K-W-L plus metacognitive strategy.

Besides, the learners were not exposed to such metacognitive reading strategy in their textbook syllabi before. Therefore, the K-W-L Plus strategy supported them engage more in their reading. Likewise, the teacher played a fundamental role in inspiring the learners to utilize the reading strategy effectively. Furthermore, the results show that the students in the experimental group developed their metacognitive skills (monitoring, planning and evaluation) that readers implement to develop understanding of any reading text. Accordingly, students are motivated to develop such strategies in order to comprehensively construct their reading technique and stimulate effective reading abilities that therefore enhance readers make sense of a reading text (Al-Khamisi 2016; Al-Kiyumi 2017; Pressley 2002). The results of this study are in line with other studies as effective readers utilize an array of metacognitive reading strategies to assist their understanding (e.g., Nist and Holshuh 2000 and Graner 1990). These strategies include summaries, mind mappings of the reading passages and deducing meanings of new vocabulary in the text. However, in the area of K-W-L strategy specifically, the current study is consistent with other studies, such as (Andriani 2017; Al Farsi 2009; Fengjuan 2010; Hamdan 2014; Kamalasari 2018; Khaira 2015;

Kusumaningrum and Widiyanto 2018; Lismayanti et al. 2014; Mahdi 2018; Utami 2017) who they found that using K-W-L Plus metacognitive reading strategy had a positive impact on students' reading comprehension performance. Learners need to use their prior knowledge to identify their current understanding of a given topic, then decide what they want to learn accordingly and what they learned ultimately. Implanting these phases of the K-W-L strategy makes learning more conscious and therefore precise rather than being passive and non-oriented. Giving this, students grow more learning responsible and independent to acquire certain segments of information aligned with their ZDP and eventually be able to be more competent. Contrarily, a few studies revealed that there was no effect of utilizing the K-W-L Plus metacognitive reading strategy on students' reading comprehension. For instance, experiments underwent by Al-Ataie 2010; Amelia and Kamalasari 201; Ibrahim 2012, Stahl 2008, and Zarei et al. 2012 and showed that students had the same reading comprehension performance both prior and after the intervention.

However, item number (12), which was about questioning the writer's view, had the lowest mean value of 2.73. This might be attributed to the fact that questioning the writer's views requires higher thinking order skills which students might lack or rather not developed sufficiently as critical thinking was not considered as a pillar of this study scope by the teacher while implementing the intervention. In her findings, Al-Mahrooqi (2012) stated that a large portion of the Omani students at school level still struggle to attain high order thinking skills including questioning the writer's views and intention.

### **IV 3. Analysis of the K-W-L Plus Charts and Students' Attitudes during the Experiment**

The K-W-L Plus charts of the learners and the teacher's notes were used by the researcher to analyze their improvement through the experiment. As well, the students' behaviors and attitudes were observed in the class by the researcher. The researcher analyzed the students' performance in terms of their previous knowledge, the ability to generate, predict questions and summarize. All these actions are observed through the three steps: what I know, what I want to know, and what I learned.

#### **Part 1: What I know**

After giving the students the K-W-L Plus instruction, they barely generated their previous knowledge. It was hard for them to get the main ideas of the passage, which was about (What is Tourism) along with the title and some pictures. Some students asked the teacher whether to write

questions or points in the first column. The low achievers could not write anything because it was hard for them to generate the previous knowledge about the reading topic in the first session.

In the following sessions, most of the learners were involved in writing down many points in the first column through generating their previous knowledge. This means that the vast majority of the students were interested in using the K-W-L Plus instruction in the class. Also, since the text topic is related to the students' culture, they were motivated to do the strategy. What is more, the reason behind their progress might be that the learners become more accustomed to the process and what is needed from them. Yet, some students used their mother tongue language to write some points that they could not say them in English. This is because the students were required to be more active and involve their own ideas and to have a clear awareness of the reading text. The passive students provided only one point or sometimes two, which might indicate their low retention. In fact, the teacher could prompt the low achievers through giving them key words from other students, stimulating their background knowledge and giving them more time to generate their previous ideas. This gave a space to implement one of the social strategies in which students are motivated to communicate with other students or teachers to seek support. It seemed that the students were able to generate few ideas by themselves though they have rich schemata for every reading text. According to Anderson and Person (1984), 'when two or more component of schema are mentioned, the aggregate probability of the whole schema being activated is a function of the sum probabilities that the individual component will activate the schema' (1984).

After one week, the students developed the process of activating their prior knowledge as the topic of the reading task was about (Types of sports). Here, reasonable ideas were provided by the majority of the students as they show willingness and interest about the topic. Yet, some low achievers continued using their mother tongue to write some difficult words and phrases. It is observed that if the reading text is about famous Arabic singers or actors, the students show confidence and courage to generate their previous knowledge and provide more ideas in the first column. As a result, the students' responses become more precise and valuable.

In the last two days of the experiment, there was a huge increase in the students' activation of their background knowledge. This implies that the learners had the ability to skim any reading text for the basic ideas and connect their previous knowledge to the new information in the reading passage. In other words, the students become more skillful in recalling the prior knowledge and

link it to any reading text. Regarding the low achievers, they encountered a hard challenge to recall as many ideas as they could. Some of them got the answers from their classmates through communication, and some of them found the discussion with the instructor very useful to recall ideas. To exemplify, some students recalled many ideas from their background knowledge related to one of the famous Omani football players called ‘Ali Al-Habsi’, which was one of the reading topics in the textbook. This topic is related to the students’ culture and interested most of them in the class. Accordingly, simple and short sentences were provided by most of them, such as ‘Ali AL-Habsi is famous’, ‘He played in Britain’. The following dialogue is taken from the instructor discussion with one of the learners. This discussion shows that the learner was able to mention and recall new sentences about the topic.

T: What do you know about Ali Al-Habsi?

S: Ali AL-Habsi is famous player.

T: Does he play outside Oman?

S: Yes.

T: In which position does he play? See the related pictures.

S: Goalkeeper.

Based on the previous discussion, it is obvious that some students required some directions from an instructor to support them generate their previous knowledge easily and effectively. In addition, some of them have rich prior knowledge, yet they need to be stimulated through instruction and explanation to activate this knowledge and put in the new reading text.

At the end of the experiment, most of the students had high confidence to activate their prior knowledge and recall many ideas in the first part ‘what I know’. Most of their recalled ideas were adequate.

## **Part 2: What I want to Know**

In the first days of the intervention of the K-W-L Plus instruction, a small number of learners had the ability to provide questions related to the topic of the reading text. It was clear that most students encountered a hard challenge to write questions. The students, in fact, relate this challenge to the lack of such abilities and skills of forming some focused questions. So, some students did not know how to put some questions in the right way. As a result, the instructor decided to give the students additional class to teach them how to form focused questions. In the following sessions

of the experiment, most of students were able to write precise and focused questions related to the main idea of the topic. What is more, some students inquired whether to write short phrases/sentences or questions. For example, students asked the teacher to write ‘What type of sports does he play?’ or just write ‘types of sports’.

In the second half of K-W-L Plus application, most of the students were interested in the reading strategy instruction. Some comprehensive questions were provided by some students which required precise answers (one or two words). Some students (mostly low achievers) used their mother tongue to provide focused questions. The high achievers had the ability to provide focused questions related to the reading text while the low achievers tried hardly to jot down some questions with the instructor’ and other students’ assistance. In the last days of the intervention, the students’ interest in using K-W-L Plus strategy increased. Their ability to provide main idea questions improved vividly (*See Appendix E*).

### **Part 3: What I learnt**

In the first two days, most students did not know how to provide the main ideas of what they already learned from the reading text. Some of them provided a well-organized main ideas based on the reading text they had. Yet, some students wrote any sentences from the text without knowing whether it is a main idea. Thus, the instructor provided support to students who faced difficulty in writing main ideas of the reading text.

In the end of week one of K-W-L Plus intervention, the students were energetic and showed interest and enthusiasm to use K-W-L Plus reading strategy. Nevertheless, some students provided insufficient and short summaries. What is more, many students took much time writing their summaries of the reading texts. This issue could be attributed to two main reasons. The first reason is that most of students had difficulty in determining the most essential ideas in the reading text from the less vital ones. Therefore, they deleted some important content ideas from their summaries. Second, it could be because students did not practice well how to write good summaries in previous grades. Furthermore, the reflection part required more time for students to complete through providing some mind mappings. Consequently, the students were given the choice whether to provide the reflection part.

In the end of the second week of the implementation of the K-W-L Plus strategy, the vast majority of students had more confidence and encouragement to generate questions than the first week. There was a noticed development in providing good summaries as they included more details in the three columns. As well, the low achievers provided acceptable summaries which were clear and well- structured. For instance, when students were working on the reading text which was about The Omani Football Player called Ali Al-Habsi, one of the learners provided a short summary as follows: ‘He is a good player. He was born in 1984. He played with different teams. He started playing in Britain in 2006. He got many prizes. Now he is very famous in Oman. Add to that, most of the students provided the reflection part through drawing beautiful minds mapping. They showed their interest and fun in doing this type of activities. Additionally, the students completed doing this strategy in their reading texts and became excited in providing summaries for the reading texts they had studied before.

After completing the experiment, the students develop confidence to use the K-W-L Plus reading strategy when approaching reading texts. In fact, most students found that applying K-W-L Plus reading strategy was effective. They stated that implementing the K-W-L Plus reading strategy increased their reading comprehension performance and their reinforcement to read passages in English. Likewise, the students’ knowledge has expanded through the use of this strategy and the research they did. In addition, the students’ previous knowledge was activated via K-W-L Plus strategy. Besides, the strategy supported students to be more independent and rely on themselves when reading any text. *Appendix (E)* illustrates examples of students’ reflections on K-W-L Plus strategy charts throughout the intervention.

#### **IV 4. Summary**

The findings of the current study were presented in this chapter. The first part revealed and discussed the findings of the reading comprehension post-test of both the control and experimental groups. In the second part, the findings of learners’ attitudes towards the implementation of the K-W-L Plus reading strategy were illustrated and discussed. The analysis of students’ K-W-L Plus charts throughout the experiment was presented. The following chapter provides conclusions, implications and recommendations for further studies in the field.

## **Chapter Five**

### **Conclusions, Implications and Recommendations**

#### **V. Introduction**

This chapter summarizes the main findings of the current study and conclusions are highlighted based on these findings. Some pedagogical implications of employing metacognitive reading strategies are put forward to enhance the field of teaching and learning English. Furthermore, some recommendations for further research are highlighted to enrich English Curriculum designers, educators and researchers.

#### **V. 1 Summary and Conclusions**

##### **V.1.1 The Performance of Students' Reading Comprehension**

Readers can build up their comprehension through the use of metacognitive reading strategies. These strategies are viewed as the top administrative skills in which students utilize their knowledge of cognitive processes to manage their learning through planning, monitoring, and evaluating (Al-Kiyumi 2017). It rather makes students undergo prompts of self-monitoring and self-regulating skills. Implementing these strategies paves the ways to make better learning experiences for the students while reading. First, K-W-L metacognitive strategies involve the learners' cognition to focus on identifying what pieces of related information about the topic they already know. Second, they facilitate the students' learning by deciding on what they want to learn based on their consciousness of information gap in a particular topic. Third, the amount of oriented cognitive processes as reflecting back on what have been learned on reading a text, makes students develop responsibility towards their own learning and might be able to regulate and automatize their ultimate academic outcomes. Adding to that, the students provide summary through mind mapping which shows their understanding of the reading text.

The present study examined the impact of implementing K-W-L Plus metacognitive reading strategy on grade ten male Omani students. The study employed a reading comprehension test to investigate the impact of K-W-L Plus reading strategy on students' reading comprehension before

and after the intervention. In addition to the learners' reading comprehension, the study also explored the students' attitudes towards the application of K-W-L Plus reading strategy.

Based on the findings, the study has shown that the students in the experimental group has benefited positively from the implementation of K-W-L Plus metacognitive reading strategy. The test and questionnaire analysis revealed that there were statistically significant differences between the group that received K-W-L Plus metacognitive reading strategy and the group which used the conventional reading instruction. It also indicated that teaching reading without K-W-L Plus metacognitive strategy might lead to less positive learning results and could cause learners' performance to plateau.

### **V. 1.2 Students' Attitudes towards K-W-L Plus Metacognitive Strategy in Reading**

Implementing K-W-L Plus reading strategy not only impacted students' reading comprehension, but it also promoted positive attitudes and increased motivation towards reading in general. Furthermore, the study revealed that providing K-W-L Plus metacognitive reading strategy for adult students helps to improve many effective aspects associated with learning. The students had comfort, enthusiasm and satisfaction is utilizing the strategy. The students' responses to the questionnaire also illustrated that the students improved their self-efficacy and autonomy, self-monitoring and self-confidence. All these aspects aid the ultimate learning purpose of developing a learner-centered learning culture at schools in general and in the Omani context in particular. What is more, the students reported that the K-W-L Plus reading strategy gave them a chance to practice their background knowledge and do further reading research to develop their metacognitive skills.

## **V.2 Educational Implications**

Since the findings of the study showed that implementing K-W-L Plus reading strategy has a positive influence on students' reading performance, some educational implications concerning the application of K-W-L Plus reading strategy are drawn.

### **V.2.1 Implications for Curriculum Designers**

A closer and deep look from supervisors, administrators, and curriculum designers is necessary to understand profoundly the noteworthy role of K-W-L Plus reading strategy in reading

comprehension to adopt this strategy in teaching reading, hence, the planned learning objectives are met effectively. This recommendation is not only targeting supervisors and instructors but also policy makers in the Ministry of Education. Teaching K-W-L Plus reading strategy supports students to be independent readers and improves their critical thinking abilities. This study and other studies have put forward the fact that the Omani schools students lack metacognitive reading skills and they are not well-prepared for tertiary study (Al-Kiyumi 2017; Al-Mahrooqi 2012; Al-Seyabi & Tuzlukova 2015; Sivaraman & Al-Bulushi 2014).

Adopting the instruction of K-W-L Plus reading strategy into schools English textbooks would be quite straightforward work for curriculum designers in the Ministry of Education to add this strategy in the textbooks syllabus to achieve the intended objectives. In the present study, the researcher incorporated the K-W-L Plus metacognitive reading strategy into the school textbooks. As a result, curriculum designers and decision makers are recommended to integrate the K-W-L Plus reading strategy in schools syllabus to promote the linguistic learning procedure in the Omani context. The Ministry of education should provide training courses for trainee instructors and supervisors including K-W-L Plus metacognitive reading strategy in order to prepare the present and coming educators with the needed knowledge. As well, the Ministry should allocate sufficient lessons at schools, thus instructors can have the chance to train students implementing K-W-L Plus reading strategy in classrooms.

Furthermore, the teacher's guides and student's textbooks designers should take into consideration allotting sufficient time for implementing K-W-L Plus strategy in reading classes. Providing care in the first reading periods is essential since K-W-L Plus reading strategy requires activating high thinking skills. Accordingly, providing adequate time to support students absorb and deeply comprehend this strategy is fundamental.

### **V.2.2 Implications for Educators**

In the field of teaching English, making the process of learning more effective is not an easy task, so instructors have to endeavor to provide more efficient ways in teaching English far away from the traditional methods. Educators are responsible for instructing students about the aims of utilizing this strategy, when and how they use it in any reading text. Implementing K-W-L Plus reading strategy on students reading comprehension improves their attitudes and motivation and it

is fundamental to accomplish the reading purposes. Educators should allocate adequate time in training their readers on using K-W-L Plus metacognitive reading strategy and increasing their awareness of the developments they might obtain when implement this strategy in any reading phase. In any learning process, learners' affective motivation and interests are highly indispensable particularly for school students and so ignoring the positive sides of this strategy leads to remiss. Some students may reveal refusal in the beginning of implementing new instructional strategy and, thus, instructors are advised to make a rigorous effort to make the classroom environment encouraging to learning. It is crucial to start the experiment with a modeling stage in which the educator orally shows students the metacognitive procedures of utilizing K-W-L Plus reading strategy in any reading passages. The modeling stage might be repeated two or three times depending on the learners' comprehension level and feedback. By doing this, a greatest advantage from teaching K-W-L Plus metacognitive reading strategy is guaranteed. Also, engaging students in the modeling stage is necessary to show them that they can verbalize their cognitive procedures in any reading text. Involving students might be individually or even as a group to illustrate how the metacognitive strategy functions, thus one learner's point of view can make other students' comprehension of the strategy easy. Using and implementing K-W-L Plus metacognitive reading strategy on students will assist the progress of having effective, independent, and critical readers.

### **V. 3 Recommendations for Further Studies**

As the current study examined the impact of K-W-L Plus metacognitive reading strategy on the reading comprehension of grade 10 students, some recommendations are made for further research and exploration:

1. The study was conducted on a small number of students (n=54) form grade 10. Thus, expanding the number of sample would provide more understanding to the field of metacognition and language learning.
2. The study involved only grade 10 male students in one Institute. So, it is recommended that further studies include males and females to determine the effectiveness of the K-W-L Plus on learners' reading comprehension and attitudes.
3. The study targeted only ne region which is Muscat governorate. Further studies are recommended on other regions in the Sultanate.

4. The experiment duration lasted for only two weeks. Hence, expanding the duration would be helpful for students to practice the strategy more.
5. The present study implemented solely two instruments to gather data. The first tool was reading comprehension test to explore the impact of the experiment on the students' performance. The second instrument was the questionnaire to reflect on the students' attitudes towards K-W-L Plus strategy. Yet, exploring the metacognitive process functioning in the students' minds while implementing this strategy is recommended for further research. Implementing think-aloud protocols in this aspect would provide extra worthy data. What is more, other researchers may utilize interviews for both educators and learners to investigate the strategy learning on a regular basis.
6. Most of the studies that investigated the effect of the K-W-L Plus metacognitive reading strategy have been carried out in teaching English in the first language context. Therefore, more researches are suggested to be conducted in the foreign language contexts.
7. Another area to be considered for further studies is a qualitative research such as case studies which would add more exciting insights into the topic.
8. A further research focuses on high metacognitive skills could be conducted by other researchers, with a precise attention on Omani learners' critical and analytical skills at the school level.

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Appendix (A)

Reading Comprehension Test

The Manager  
The Video Store  
24 High Road  
Sully Ville

10 Wash back Road  
Inglefield  
Mintshire

1<sup>st</sup> April 2005

Dear Sir/Madam

I am writing to complain about the DVD that I bought recently from your shop in High Road on February 25<sup>th</sup>, 2005.

I really enjoyed watching films and like the Captain Perfect stories. I was really looking forward to watching the latest Captain Perfect film on DVD. I had waited all night outside your shop to be one of the first people to buy the DVD.

I was really happy when I got the DVD because I really enjoy the Captain Perfect stories. However, when I got home and opened the DVD box, I was surprised to find the surface of the DVD was scratched. I then put the DVD into the machine and found that it would not play.

As you know, DVDs are quite expensive. This DVD cost me \$20, so I was surprised when it did not work. It also cost me about \$10 to come to your shop by train and bus so I could reserve the DVD. I am sending the DVD back to you and would like a full refund for the DVD, the cost of traveling to the shop and the postage.

I look forward to hearing from you in the near future.

Yours faithfully,

Martin Welsh

Read the text. Choose the correct answer a, b, c or d.

- 1- This text is -----
  - a. a postcard
  - b. an e-mail
  - c. a formal letter
  - d. an informal letter
  
- 2- The best title for the text is -----
  - a. The scratched DVD
  - b. Captain Perfect stories
  - c. Informal letter
  - d. watching films
  
- 3- Martin was -----
  - a. complaining
  - b. discussing
  - c. asking
  - d. guessing
  
- 4- Martin Welsh lives in -----
  - a. 24 High Road
  - b. Minitshire
  - c. Sully Ville
  - d. Wallsend
  
- 5- Martin spent ----- waiting outside the shop.
  - a. all night
  - b. all day
  - c. all the morning
  - d. all the afternoon
  
- 6- The problem with the DVD was that it -----
  - a. Played slowly
  - b. did not play
  - c. was expensive
  - d. was broken
  
- 7- After checking the DVD, Martin was -----
  - a. happy
  - b. unhappy
  - c. tired
  - d. ill
  
- 8- The DVD cost  
  - a. \$20
  - b. \$10
  - c. \$30
  - d. \$25



- 
- 9- Martin went to the shop by-----.
- a. train and car
  - b. bus and train
  - c. a train.
  - d. a bus

### Reading Text (2)

I got off the school bus and there it was! A really shiny penny lying on the ground in front of me. I picked it up. Then I carefully opened my fingers and stared at the penny which was sitting on my hand. It felt very strange and warm and it glowed like burning wood in a fire. Maybe it was a lucky penny. I put the penny in my pocket and went home.

When I got home, I went to my bedroom and I took the penny out of my pocket and looked at it again. This time it wasn't shiny and it wasn't warm, but I knew it was special. I secretly put it in my school bag.

At school the next day, I met my friends in the playground at break time. We all like collecting cards and today we had new cards to show each other. We spread our cards out and studied them. David has the best card. It was a picture of Doctor Danger card. It was brilliant and I wished that I had a Doctor Danger card.

After school, I was waiting for the bus with David. He was busily looking in his bag and he was very upset. David told me that he couldn't find his Doctor Danger card. I helped him look for it, but we couldn't find it anywhere.

When the bus arrived, we climbed on. While I was getting on the bus, the Doctor Danger card fell out of my bag. I was really surprised and shocked. David said that I was a thief and that I had stolen the card.

When I got home, I sat in my bedroom and silently thought about David and his card. I felt really sad, miserable and lonely because David didn't want me to be his friend.

I knew I hadn't taken the card. Then I realized that I hadn't taken the card, but I wished for it. My wish had come true. Finally, I knew that my lucky penny was really lucky.

**Read the text. Choose the correct answer a, b, c or d.**

- 10- The text is -----  
a. a story  
b. an e-mail;  
c. a leaflet  
d. a letter
- 11- The best title for the text is -----  
a. money  
b. the lucky penny  
c. Doctor Danger card  
d. Collecting cards
- 12- The writer found the penny -----  
a. on the bus  
b. in the school  
c. outside the school  
d. in the bag
- 13- The penny when found was -----  
a. shiny and cold  
b. shiny and warm  
c. brilliant  
d. cold
- 14- The writer's friends like collecting -----  
a. cards  
b. shells  
c. coins  
d. stamps
- 15- David lost his card -----  
a. on the bus  
b. at school  
c. at home  
d. at bedroom
- 16- The writer felt ----- when he lost his friend.  
a. happy  
b. unhappy  
c. angry  
d. lucky

### Reading Text (3)

Walt Disney, the creator of famous cartoon characters such as Mickey Mouse was born in 1910 in Chicago, Illinois, USA. He died at the age of 65 in 1966 after a 43-year long career in film making.

Walt became interested in drawing when he was very young. He started his job in Kansas City in 1920 when he drew cartoons for commercial advertisements. In 1923, his skill as cartoonist started making simple animated cartoon films in Hollywood. In 1928, Walt made the first silent cartoon called "Plane Crazy" which starred a new character named Mickey Mouse. Later in the same year Mickey appeared again in the first ever sound cartoon called "Steamboat Willie". With the introduction of colour films, Disney went to produce some of the greatest animated films such as "Snow White" and "Seven Dwarfs". This was the world's first animated musical to make in 1937.

In 1955, Disney built new entertainment centers such as Disney land. After his death, his ideas were used to set up a theme park and hotel resort in Florida called Disney World which opened in 1971, and the Epcot Center which opened in 1982 and tries to imagine what life will be in future.

During his life, Walt Disney won many prizes such as Oscars and 7 Emmys. He also went to help others by helping to set up the California school of Arts in 1961.

Read the text. Choose the correct answers **a, b, c or d.**

17 - The text is-----

- a. a fable
- b. a biography
- c. An interview
- d. a legend

18 - Walt Disney lived for-----

- a. 65 years
- b. 43 years
- c. 48 years
- d. 56 years

19 - Walt Disney started his job in -----

- a. Chicago
- b. Hollywood
- c. Kansas city
- d. Illinois

20 - The "Steamboat Willie" was the world's first -----

- a. silent cartoon
- b. sound cartoon
- c. animated musical
- d. colour films

21 - Snow White and Seven Dwarfs were made in -----

- a. 1928
- b. 1937
- c. 1923
- d. 1982

22 - Disney world was opened in -----

- a. Chicago
- b. Hollywood
- c. Florida
- d. California

23 - The Epcot Center is about-----

- a. life in future
- b. Walt Disney's life
- c. Cartoon films
- d. Disney world

24 - Walt Disney helped others by-----

- a. making cartoon films
- b. winning Oscars
- c. Setting up a school of arts
- d. setting up Disney World.

**Appendix (B)**  
**Attitude Questionnaire**

Instructions for students:

1- This questionnaire has a number of statements that aim to find out your opinion about the method your teacher taught you the reading skill.

2- This questionnaire is not a test and there is no right or wrong answer for the statements. Your answer is only about your own opinion. So the researcher would be very grateful if your answers are frank, honest and not influenced by your friends.

3- Your answers will be fully confidential and will only be used by the researcher for academic purposes.

4- Please make sure that you only put one tick ( ) next to each statement.

5- Make sure that you tick ( ) all the statements.

Put a tick ( ) next to the following statements using the following scale:  
strongly agree, agree, not sure, disagree and strongly disagree.

Statement	Strongly agree	agree	Not sure	disagree	Strongly disagree
<b><u>The method my teacher used in reading</u></b>					
1- Helped me to activate my prior knowledge and experiences about the topic of texts.					
2- Helped me identify purposes for reading texts.					
3- Made me aware of useful reading strategies.					
4- Made me willing to use those reading strategies regularly in the future.					
5- Made me more willing to read English texts					
6- Helped me to think and generate many ideas while reading texts.					
7- Helped me to practice self-questioning while reading texts.					

8- Made me enjoy the reading lesson.					
9- Helped me organize my ideas while reading texts.					
10- Helped me distinguish between facts and opinion.					
11- Helped me to think critically while reading text.					
12- Helped me question the writer's opinion.					
13- Made me more self-confident while reading texts.					
14- Helped me monitor my comprehension while reading texts.					
15- Helped me have positive attitudes towards reading.					



## Appendix (D)

### Reading Texts

<b>The Unit</b>	<b>Topic</b>	<b>Pages</b>	<b>Week</b>
<b>Unit Two</b> <b>(Travelers and Tourists)</b>	Types of Tourism	Class Book p.7	Week 1
	Tourist Information	Class Book p. 9	Week 1
	London	Class book p.14	Week 1
	Getting There	Class Book p.17	Week 1
<b>Unit Three</b> <b>(sports)</b>	Types of sports	Class Book p.23	Week 2
	Omani Famous Player	Class Book p.25	Week 2
	Genius World Records	Class Book p. 29	Week 2
<b>Unit Four</b> <b>(Our Changing Environment)</b>	Climate Change	Class Book 31	Week 2

Appendix (E)

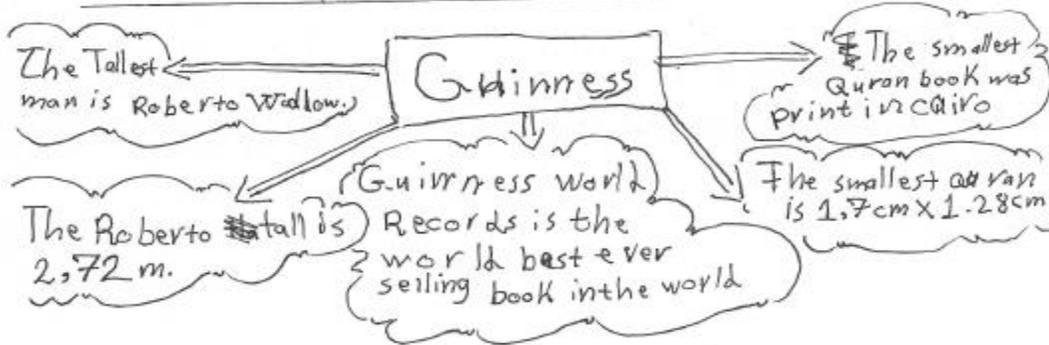
Samples of Students' K-W-L Plus Charts

Haniza talal

Appendix (D)

# K-W-L PLUS CHART

What I know	What I want to know	What I learned
<ul style="list-style-type: none"> <li>• It is in U.S.A</li> <li>• It is a good far search about any thing</li> <li>• It is in all information about it, in my mind</li> </ul>	<ul style="list-style-type: none"> <li>• why it is famous</li> <li>• How I can go to it.</li> <li>• How many people in side it.</li> </ul>	<ul style="list-style-type: none"> <li>• The smallest published Holy Quran book measured 1.7cm x 1.28 x 0.72.</li> <li>• The tallest man is Robert Wadlow. He is tall is 2.72 m.</li> </ul>

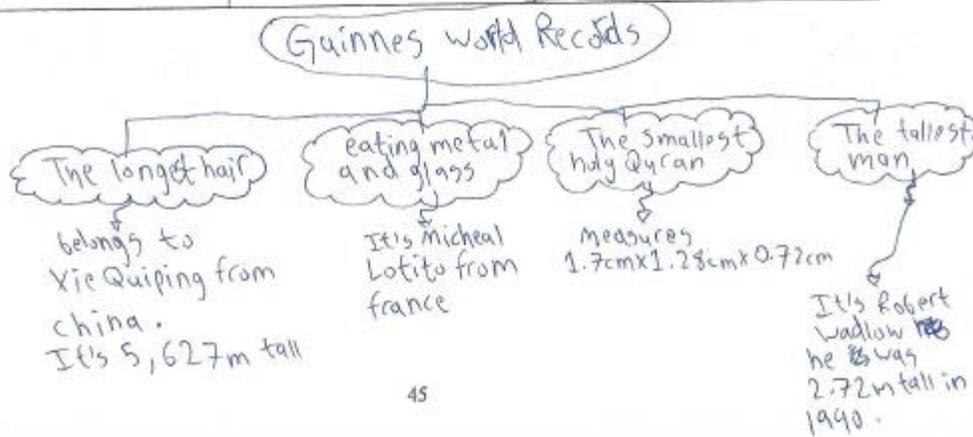


Ahmed AL-Jabri 10-A

Appendix (D)

# K-W-L PLUS CHART

What I know	What I want to know	What I learned
- I know that Guinness world record book is for recording the best world records.	- I want to know more about the Guinness world record books in the world.	- Guinness world Records is the world's best ever selling book in the world.
- I know that you can submit any world record you have done it's not about one subject only it's about so many things.	- I want to know more world records.	- The longest hair belongs to Xie Quiqing from China with 5,627m tall.
	- I want to know the history of these world records.	- There is a man from France called Micheal Lotito has been eating metal and glass since 1984.
		- The smallest published holy Quran book measures 1.7cm x 1.28cm x 0.72cm
		- The tallest man record in history was for Robert Wadlow.



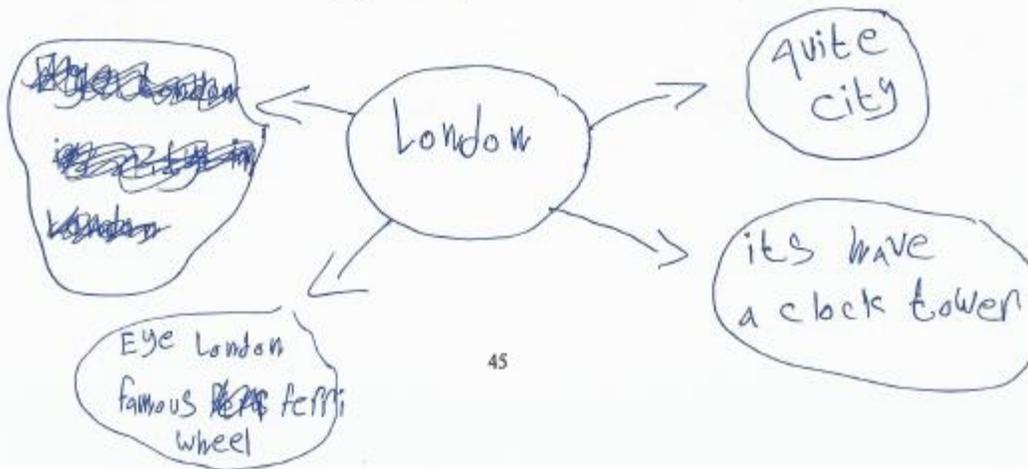


Name: Bader Hital Alshukri

Appendix (D)

# K-W-L PLUS CHART

What I know	What I want to know	What I learned
* London is the capital of United Kingdom. * London is historic city. * London have a celebration every year.	* I want to know why the King chose London to be a capital? * What happened in London to be historic city? * Where is London exactly in United Kingdom?	* London is quite city. * the tall of clock tower is 95 meters. * the London Eye famous Ferris wheel. * Ferris wheel can hold you up to 25 passengers.



10/A

# K-W-L PLUS CHART

What I know	What I want to know	What I learned
<ul style="list-style-type: none"> <li>Guinness world record it's show adventures and skill of people who make the best record in the world for any thing like sport games and stunts and ...</li> </ul>	<ul style="list-style-type: none"> <li>I want to know how many people has entrance the organize</li> <li>I want to know what the skills who the people do to entrance the organize</li> </ul>	<ul style="list-style-type: none"> <li>Guinness world record is the world best ever selling books</li> <li>some people enter the (G.W.R) like Xie Quiding, Michal Lotita and Robert waldow.</li> <li>there are holy Quran in (G.W.R)</li> </ul>



Name: Bader Hital Alshukri

Appendix (D)

Class: 10/A

## K-W-L PLUS CHART

What I know	What I want to know	What I learned
of new things that someone do it or someone have it.	* I want to know who is the tallest man in world.	* Longest documented hair belongs to Xie Ziping from China.
	* What is best book in world.	* Michel Lotito from France has been eating metal and glass.
	* Who is the smallest man in world.	* Holy Quran is the smallest published book.



