CHAPTER 2
THEORETICAL BACKGROUND

2.1 Introduction

Globalization in higher education, technological developments and integration of different technological tools in the field of education have a great bearing on teaching English language for ESL and EFL learners. Cross-border student mobility to pursue higher education abroad represents a critical educational transition, particularly in countries where English is learnt as a second or foreign language. Teachers of English language for ESL/EFL learners are therefore mandated to develop academic language proficiency in learners as standardized language tests attempt to measure the academic language skills of the test-takers. Further, preparations for such proficiency tests or competitive exams are usually undertaken by the aspirants along with their regular, full-time courses. Most of them find it difficult to manage the two and so they therefore seek training that would help them overcome their constraints in time and space. This has necessitated the language teachers to integrate the use of technology in their teaching, as it offers learners flexibility in time and space, connects them to a plethora of learning content available in the World Wide Web and facilitates interaction and active learning.

This chapter elaborates on the methods, theories and instructional design models adopted at different times to teach English as a second or foreign language. It also describes in detail the use of computer and internet technology in education, particularly in language learning. It also explains the implications of learning theories, instructional design models and web 2.0 technology adopted for the training designed by the researcher to review the feasibility of teaching reading and writing skills to TOEFL aspirants in an online learning environment, Wiki.

2.2 Skills Training at a Glance

Skills training in general is training designed to provide learners the basic skills necessary for employment in a specific area. The term ‘Skill’ in language teaching is used as a specific way of using the language that combines structural and functional ability. The main advantage of skill-based instruction is its relevance to students’ felt
needs. Though much attention is paid today in all spheres of life to need-based skills training, it is not incorrect to say that it has been in practice since earlier times in the field of English language teaching. The history of English language teaching reveals that the teaching methods, approaches and procedures have transformed in tune with the demands of changing times. While the methodology of teaching Maths or Physics had remained the same to a greater or lesser extent, the teaching of English or language teaching in general had changed Thanasoulas (2002). Further, Richards and Rogers (1986) said that “Changes in language teaching methods throughout history have reflected recognition of changes in the kind of proficiency learners need such as a move toward oral proficiency rather than reading comprehension as the goal of language study; they have also reflected changes in theories of the nature of language and of language learning” (p. 1).

2.2.1 Communicative Approach to English Language Teaching

During the early years of English language teaching, only the structural aspect of the language was given importance and owing to situational demands in the later years functional aspect along with structural aspect gained attention. This shift is evident in the history of English language teaching in India also, as India followed the ELT pedagogies primarily developed in the West. But it only took some time for it to reach the Indian classrooms. Since 1970, communication has become one of the primary purposes behind teaching English language. It was argued that the goal of language teaching is communicative competence and not simply grammatical competence. In other words, it was viewed that grammatical competence is necessary to create grammatically correct sentences but it cannot claim centrality in language teaching. As the traditional theories were failing to meet the current demands of the English language learners, initiation of new theories led to the introduction of Communicative Language Teaching (CLT).

Communicative Language Teaching reached both India and the West during the period 1970-1980. In 1980s, the CBSE changed its English syllabus in which more importance was given to language functions than literature. The Acharya Commission in 1986 also observed that more importance should be given to the hours of study and the level of attainment of the language than the number of years of study. The
Curriculum Development Centre (CDC), set up by the University Grants Commission (UGC) in 1989, directed that the curriculum should shift its emphasis from teaching to learning and it should be designed to meet the needs and aspirations of the learners. Consequently, CLT slowly crept into the Indian classrooms. The knowledge and skills needed to use grammar and other aspects of language appropriately for different communicative purposes became the centre of focus.

The learners desired to achieve communicative competence either for basic purposes or specific purposes. In order to meet the learners’ demands, educational boards, teaching institutions and language teachers began to rethink their syllabuses and methodologies. At the syllabus level, functional–notional syllabus, task-based syllabus, skill-based syllabus, and content-based syllabus were introduced. At the level of methodology, classroom activities, materials and the role of the teacher and learners were given due importance.

The functional-notional syllabus is based on the theory of language that focuses on the functional and social aspects of competence. It is based on learning to understand and express the communicative functions of language and the concepts and ideas to be expressed. In other words, this kind of syllabus focuses on the purposes for which language is used and the meanings the speaker wanted to express rather than on the forms used to express them. This syllabus consisted of a list of functions (e.g., requesting, greeting, apologizing) and notions (e.g., past time and possibility) together with the linguistic exponents required to realize them in communication. According to Richards and Rodgers (2001), one of the strengths of notional-functional syllabus which has helped the emergence of communicative approaches to language teaching is that it considers the needs of the learners and the meanings they need to convey. However, it is argued that though learners learn to use language to express authentic communicative purposes, there are no clear-cut criteria for grading of functions and it mainly depends on the material designer’s intuition. Further, functions and notions are quite abstract and some learners may have difficulties thinking of communicative functions outside a specific context.

A task-based syllabus is based on the assumption that the ability to use a language is through exposure to the language and participation in using it. In this method learners
carry out tasks such as solving a problem or planning an activity. The language learnt emerges out of the linguistic demands of the activity. It is argued that it ignores addressing explicit meta-linguistic knowledge, or the ability to make descriptive or prescriptive statements about language and manipulate language as an end in itself. In the words of Nation and Macalister (2010) it “focuses on fluency at the expense of accuracy” (p.81).

The skill-based syllabus focuses on the four language skills, viz. listening, speaking, reading and writing. The primary purpose of the skill-based approach is to teach the specific language skill that may be useful or necessary in using the language. Advocates of the skill-based approach view language as a collection of separate skills. Each language skill is divided into sub-skills. These sub-skills are gradually taught in a predetermined sequence through direct explanation, modeling and repetition. As Richards (2001, p.160) puts it, “approaching a language through skills is based on the belief that learning a complex activity such as “listening to a lecture” involves mastery of a number of individual skills or micro-skills that together make up the activity. Further, it was believed that teaching the micro-skills of the language skills will enable the learner to put them together when using them (Cunningsworth, 1995). On the other hand, it was argued that in real life the skills often occur together and not in isolation and hence they should be integrated while teaching.

Content-based instruction refers to an approach in which teaching is organized around the content rather than around a linguistic syllabus (Richards and Rodgers, 2001). It was believed that the rationale behind the integration of language and content is that the language is learned most effectively for communication in meaningful, purposeful social and academic contexts. It is also believed that integration of language with content provides both a motivational and a cognitive basis for language learning. As stated by Cummins (1980; 1981; 1996) there are two kinds of English language proficiency the learners must exhibit while using the language. One is the basic interpersonal conversational skills (BCIS), which are for engaging in conversations in social settings, and the other is cognitive academic language proficiency (CALP), which is for understanding the written text or lectures of experts in content areas like maths, science and technology, and responding either in spoken or written form.
It is worth mentioning that each of these syllabi deals with the different methods that could be adopted by the teachers to achieve a common goal of imparting communicative competence. Therefore, appropriate instructional methods and materials for teaching particular language skills are planned taking into consideration instructional and learning theories, learning style, learner differences and preferences.

### 2.3 Reading and Writing Skills

Language educators have long used the concepts of four basic language skills: Listening, Speaking, Reading and Writing. Emig (1977) is of the opinion that of the four skills of language, speaking and listening skills are to a certain extent ‘natural’ and ‘irrepressible behavior’ (p.123). Their acquisition is largely unconscious and a part of the maturational process. On the other hand, the faculties of reading and writing should be ‘nurtured’. Someone has to intervene in the growing-up process and give it a new direction. Even in the case of a second language learner, basic fluency is attained when exposed to the environment but proficiency in comprehending and writing of academic texts is considered challenging. As a result, teaching of reading and writing skills gained prominent attention in English language teaching.

Traditionally, reading was once viewed as a passive process in which the readers simply decode the written symbols without bringing their own knowledge to interact with the text. In other words, it was considered as a process in which a person receives and interprets a message from printed materials. With the emergence of the psycholinguistic model of reading the views about reading changed. Since then reading has been considered an active process in which the reader creates meaning from the printed words. Goodman (1976) and Smith (1973) regarded reading as a language process and not merely the sum of various decoding and comprehension sub-skills. In other words, reading is only incidentally visual. More information is contributed by the reader than by the print on the page. The reader brings information, knowledge, emotion, experience and culture, that is, schemata to the printed word. Thus reading is a process of reconstructing the author’s ideas and information.

Reading is a crucial element of tertiary education as it requires lot of independent and wide reading. Ziyaeeimehr (2012) maintains that perhaps the most important ability that a non-native speaking student of science needs is reading and the most important
thing about reading is comprehension. In advanced educational settings the ability to understand in an effective manner the text that is decoded is considered as the essential element of the complete skill of reading.

Writing is a productive language skill and is an important skill in learning a foreign language. According to Bello (1997), writing plays an essential role in promoting language acquisition as learners experiment with words, sentences and large chunks of language to communicate their ideas effectively and to reinforce the grammar and vocabulary they learn in class. It stimulates thinking, compels students to concentrate and organize their ideas, and cultivates their ability to summarize, analyze, and criticize. It also reinforces learning, thinking and reflecting in the English language. Nevertheless, students find writing in English difficult because the writing process requires them to utilize many cognitive and linguistic strategies of which they are uncertain. This is more so in the case of second or foreign language learners, as they do not know enough about how to generate ideas for writing. As effective writing is considered to be a problem for ESL/EFL learners, there is a felt need to find out ways of teaching that can help learners improve their writing performance. Teaching writing is no longer about making students do grammar exercises in writing or getting writing which is free from grammar, punctuation and spelling mistakes; instead, it is about writing what students are interested in and what they really want to communicate to the reader, and how they reach their final writing products (Darayseh, 2003).

2.4 Teaching Reading and Writing Skills

The literature on reading and writing instruction substantiates the different methods adopted by teachers during different periods to improve the comprehension and writing abilities of learners.

Studies on researches on reading from 1930 to the present day can be broadly classified into two categories: (i) where instruction is intended to increase comprehension of particular texts; and (ii) where instruction is intended to increase the ability of learners to understand on their own any texts they encounter. In the first case, as Tierney and Cunningham (1984) point out, the focus is on helping learners to understand, recall or integrate information from a specific text passage and passages.
In this kind of reading instruction, the teacher’s intervention is predominantly found before a text is read, while it is being read and after it is read. In the second case, the focal point of instruction is the transfer of skills and strategies from the instructional text to the new text that learners encounter in future. In this kind of instruction, the teacher generally demonstrates strategies for students until the students are able to carry them out independently.

Similarly, research studies on writing instruction show that there are a number of methods that have been in practice in teaching writing and the two major ones among them are the product and process approaches. Product-oriented approaches focus on the production of neat, grammatically correct pieces of writing (Mahon, 1992). In this type of writing instruction, the emphasis is on grammatical correctness and adherence to given models or guidelines (White, 1988). Raimes (1983) regarded that imitating models only gives a little or no opportunity for students to add any thoughts or ideas of their own. Similarly, it is viewed that over-emphasis on accuracy and form can lead to serious “writing blocks” (Halsted, 1975) and “sterile” and “unimaginative” pieces of work (Mahon, 1992). On the other hand, a process-oriented approach places more emphasis on the stages of writing process than on the final product. In this approach, students are taught planning, drafting, revising, editing and publishing strategies at each stage of the writing process so as to help them to write freely and arrive at a product of good quality. Attention is paid first to content and meaning and then to form. According to Zamel (1983), teaching writing using this approach allows students to explore and discover their thoughts, construct meaning and assess it at the same time.

2.4.1 Sub-Skills Approach to Teaching Reading and Writing

Reading is considered a receptive skill. Urquhart and Weir (1998) argued that “if reading itself is a skill, it must be possible to break this down into different levels of component skills categories” (p.91). In fact, several researchers have made attempts to divide the reading skill into micro and macro skills. Brown (2001) lists some of the micro skills and macro skills that learners should use while doing reading tasks. The micro skills of reading focus on,
• Discriminating among the distinctive graphemes and orthographic patterns of English;
• Retaining chunks of language of different lengths in short-term memory;
• Recognizing a core of words, and interpreting word order patterns and their significance; and
• Recognizing grammatical word classes (e.g., nouns and verbs), systems (e.g., tense, agreement, and pluralization), patterns, rules and elliptical forms.

The macro skills of reading focus on:

• Recognizing the rhetorical forms of written discourse and their significance for interpretation;
• Recognizing the communicative functions of written texts, according to form and purpose;
• Inferring context that is not explicit by using background knowledge;
• Inferring links and connections between events, deducing causes and effects from described events, ideas, etc., and detecting such relations as main idea, supporting details, new information, given information, generalization and exemplification;
• Distinguishing between literal and implied meanings;
• Detecting culturally specific references and interpreting them in the context of appropriate cultural schemata; and
• Developing and using a group of reading strategies, such as scanning and skimming, detecting discourse markers, guessing the meanings of words from context and activating schemata for the interpretation of texts.

Those who believe in teaching the sub-skills of reading feel that it would help students to get specific information from the texts. It is also believed that practice on each sub-skill will improve the overall reading skills of the learner. Therefore, the
teacher is required to teach sub-skills in detail and to train learners to get familiar with them until they can use the sub-skills freely.

Writing is a powerful mode of communication. What one thinks leads to one’s writing in the form of sentences, and by organizing sentences into a cohesive text one successfully communicates with the readers. This complex nature of writing makes it the most difficult skill for students to acquire. Underlining that writing is more difficult than speaking, Langan (1997) and Gunning (1998) viewed that writing is more complex and more abstract than speaking. Moreover, Parker (1993) felt that writing could be a torment to students. In addition, Pearsall and Cunningham (1998) and Emmons (2003) regarded writing as hard work. Considering this nature of writing, teachers of writing who advocate a sub-skills approach make learners acquire the sub-skills because they believe that mastering of various sub-skills of writing will make students’ writing better. Brown (2004) has summarized all aspects of writing skill into two main skills which can be used for teaching and assessing writing. They are micro and macro skills of writing. The micro skills of writing include:

- Producing graphemes and orthographic patterns of English;
- Producing writing at an efficient rate of speed to suit the purpose;
- Producing an acceptable core of words and using appropriate word order patterns;
- Using acceptable grammatical systems (tenses, agreement, pluralization), patterns and rules;
- Expressing a particular meaning in different grammatical forms; and
- Using cohesive devices in written discourse.

The macro skills of writing are:

- Using the rhetorical forms and conventions of written discourse;
- Accomplishing appropriately the communicative functions of written texts according to form and purpose;
• Conveying links and connections between events and communicating relations such as main idea, supporting details, new and given information, generalizations, and exemplification;

• Distinguishing between literal and implied meanings when writing;

• Conveying correctly culturally specific references in the context of the written text; and

• Developing and using a group of writing strategies, such as accurately assessing the audience’s interpretation, using pre-writing devices, writing with fluency in the first draft, using paraphrases and synonyms, soliciting peer and instructor feedback, and using feedback for revising and editing.

2.4.2 Metacognitive Strategies of Reading and Writing

Research studies show that successful comprehension and writing do not occur automatically and that they depend on metacognitive processing. According to Alexander and Jetton (2000), metacognitive processing is expressed through strategies, which are “procedural, purposeful, effortful, willful, essential, and facilitative in nature” (p.295). Through metacognitive strategies, one allocates significant attention to controlling, monitoring and evaluating the reading and writing processes. Metacognitive strategy is a term used in information-processing theory to indicate an “executive” function and it refers to the strategy that is used by learners as the means to manage, monitor and evaluate their learning activities. In other words, metacognitive strategies are skills, approaches, and thinking and actions learners use to control their cognition and learning process. Researchers (e.g., Brown et al., 1983; O'Malley and Chamot 1990; Cohen, 1998) of FL/SL learning give a similar view to the definition and function of metacognitive strategies. They emphasize that the essential nature and general function of metacognitive strategies is planning, organizing and evaluating one's own learning (Hongyun and Liansheng, 2004).

2.4.2.1 Reading Strategies

According to Carrell et al. (1989), metacognition in reading refers to the reader’s understanding of any cognitive process. Metacognition in the context of reading consists of (1) a reader’s knowledge of strategies for learning from texts, and (2)
control readers have of their own actions while reading for different purposes. In brief, metacognition refers to awareness of one’s own reading processes (Brown, 1980). It means awareness of one’s own understanding and non-understanding of reading strategies, and of monitoring comprehension during reading.

The main goal of metacognitive monitoring in reading is to detect a lack of understanding of the text and to rectify it. In such situations, readers use a wide range of what researchers have called “fix-up strategies” and try to rectify their lack of comprehension. Reading strategies are defined as mental processes that readers consciously choose to use in accomplishing reading tasks (Cohen, 1986), techniques and methods readers use to make their reading successful (Block, 1986). These processes and methods include how to conceive a task, what textual clues they attend to, how readers make sense of what they read, and what they do when they do not understand. The most frequently used strategies by good readers while reading include predicting, skimming, scanning, guessing the meaning of unfamiliar words from context, making inferences, summarizing or paraphrasing, using rhetorical devices etc.. Instruction in the use of these strategies is necessary and this is reiterated by McNamara et al. (2007), who stated that reading strategies instruction is indeed very effective for learners who show lack of knowledge in the domain of reading, as well as those with lower reading skill.

**Predicting** is a general technique used in the reading process (Grellet, 1981) which is core and basis of reading comprehension (Smith, 1988). According to Nuttall (1996), if a reader understands a text, he could predict with a fair chance of success what is likely to come next. It requires the readers to use schemata about the way texts are constructed and probable thinking methods of people. Thus, making prediction is considered an effective method of promoting the reader’s activation of their background knowledge and an important part in the process of reading.

**Skimming** is a useful and effective technique to enhance reading comprehension. Skimming refers to the act of reading a material quickly in order to get the gist of it, to know how it is organized, or to get an idea of the tone or the intention of the writer (Grellet, 1981, Kustaryo, 1988 and Brown, 2003). While skimming a text, a reader need not read all the sentences but only the introductory information, headings and
subheadings, and summary of the text. In other words, it is a prediction strategy used to give the reader a sense of the topic and purpose of a text, the organization of the text, the perspective or point of view of the writer and its usefulness to the reader. Skimming for the main idea is a good way to improve the top-down reading of ESL learners who normally tend to process texts in a bottom-up manner (Kern, 1989). He felt that top-down reading will help in enhancing their comprehension of difficult texts. Similarly Allen and Valette (1997) point out that the skimming technique is a useful tool to help students extract from the text the key words that permit them to infer the general sense of a text, which lets them interpret a text faster and advance in the reading process. According to Maxwell (1969), through skimming students develop powers of inference through systematic practice, which encourages them to anticipate the content of a text. Therefore, a certain amount of practice is necessary in order to skim and fulfill their purposes.

**Scanning** is a skill that requires glancing or reading quickly through a text to search for specific information. Scanning involves moving one’s eyes quickly down the page seeking specific words and phrases. With this technique, students look for specific information within a text such as dates, names and places, among others. Besides, they look for the words that are in bold face, italics, or in different font size, style, or colour. According to Maxwell (1970), scanning, the ability to locate specific facts and details quickly, is a desirable reading skill which is taught in most developmental reading courses.

**Contextual Clues** have an important role in dealing with reading comprehension and they are important factors for comprehending a text broadly and learning new words specifically. Guessing from the context is one of the most useful skills learners can acquire and apply inside and outside the classroom and, more importantly, can be taught and implemented relatively easily (Thornbury, 2002). It is a useful tool in learning and teaching of reading comprehension (Shokoohi and Askari, 2010). Further, Kiani (2011) stipulates that contextual clues have a powerful effect on students’ comprehension of words and sentences. Knowledge and skill of using words in different contexts plays an important role in the comprehension of new concepts, ideas and principles. Smith (1971) argued that the best way to identify an unfamiliar word in a text is to draw inferences from the rest of the text rather than looking it up
in a dictionary. This view differentiates top-down processing from bottom-up processing of unknown words, emphasizing that the reader depends on the context to interpret words. Native speakers follow top-down processing and so they infer the meaning of unknown words from the context. As the normal tendency of ESL/EFL learners is to use bottom-up processing, they need a lot of practice in how to use contextual clues, one of the top-down processing strategies.

It is widely accepted by reading theorists and researchers that the ability to make inferences is necessary for reading comprehension. At a general level, inference is a cognitive process used to construct meaning. Inference in reading comprehension is a constructive thinking process because the reader expands knowledge by proposing and evaluating the hypothesis about the meaning of the text in an attempt to progressively refine understanding. Vonk and Noordman (1990) stated that the writer would leave implicit the information that was supposed to be derived from the text by the reader. Therefore, it is necessary for the reader to draw upon his prior knowledge or his understanding of the context to deduce the implicitly stated information embedded in the text. The reader’s unique interpretation of a text is the product of this blending of what is read and prior knowledge called schema. According to Trabasso and Magliano (1996), there are three kinds of working memory operations occurring in think-aloud protocols:

(a) activation of relevant world knowledge,
(b) maintenance of information in working memory, and
(c) retrieval of text and prior thoughts from long-term memory.

They noted that these were functionally necessary to the three kinds of inferences that they found: backward inferences (explanations), concurrent inferences (associations), and forward inferences (predictions). Explanations are concerned with the reasons why something occurs, such as motive, physical cause, or enabling condition. Associations provide information on the features and functions of persons, objects and events in the text. Predictions are inferences made by readers about the future consequences of a focal event. In other words, there are numerous types of inferences that readers need to make while reading texts. Some inferences are grammatical, such as recognizing the antecedents for pronouns. A few other inferences help the reader to
identify author’s biases, understand details about the setting, or figure out the meaning of an unknown word. There are certain situations where readers are required to develop details or explanations about particular events, understand characters’ beliefs, or offer conclusions based on facts presented in the text. All this makes inferencing a complex skill and hence there is a need for training in this area.

Paraphrasing is a reading comprehension strategy that involves putting the text into the reader’s own words. In other words, the reader carefully reads the text, thinks about the text and then transfers the author’s message into his own words. According to Mcnamara (2004), describing the text in one’s own words serves two functions: (1) it allows the reader to transform the material into a representation that is more familiar and consequently more memorable; and (2) the ability to paraphrase roughly translates into the most basic level of comprehension because, to paraphrase successfully, one must be able to process the basic structure and grammatical relations of the sentences to transform the text into more familiar words. Paraphrasing can be used with both fictional and non-fictional texts. This strategy is otherwise called the RAP strategy: read a paragraph, ask questions about the text and paraphrase it (Katims and Harris, 1997; Hagaman and Reid, 2008; Hagaman, Luschen, and Reid, 2010). Schumaker, Denton and Deshler (1984) stated that paraphrasing is a reading comprehension strategy that can be taught by teachers and used by students to assist them in monitoring and understanding what they are reading. Similarly, Rosenshine and Meister (1994) believed that paraphrasing is an important technique that should be taught to improve comprehension.

Rhetorical devices are used in the text to signal the reader about an important piece of content and show its relation to other pieces of content. Several types of rhetorical devices are used in a text to make explicit the logical structure of the information. They are pronouns, definite articles, repetitions of words and synonyms, words that highlight informational organization (e.g., first, second, however, on the one hand, in contrast, etc.), and transitional words, phrases, and sentences that connect sentences and parts of sentences together. There are words or cues that signal cause and effect, comparison and contrast, conclusion, continuation, emphasis, examples, hedging, sequence, time, space, non-word emphasis (e.g., bold type, exclamation point, italics, etc.), and so forth. Meyer (2003) defined the signals as stylistic writing devices that
highlight aspects of semantic content or structural organization. According to him, in the reading process, when the interaction between the reader and the text was considered the factors of text organization and signaling of this organization gained importance (Meyer, 2003). Lorch and Lorch (1995) claimed that important ideas and relationships in a text are emphasized through the use of signals. So it is necessary for teachers to provide training that focuses on the identification of signaling cues and their functions. Students must be trained to pick up cues for signaling information and discourse organization for a better understanding of the text.

According to O'Malley and Chamot (1990), summarizing is making a mental, oral, or written summary of new information gained through listening or reading. In reading, the process of summarization focuses attention on the major points of a text and provides the reader with a conceptual framework that accelerates both memory and comprehension. The process of summarizing enables to grasp the original text better and the results show the reader of the summary, the level of understanding of the one who summarized the text. In addition to this, the knowledge gained by summarizing helps to analyze and critique the original text Gulcat (2007). Corder-Ponce (2000) is of the opinion that “summarization is probably the most significant and encompassing of all reading strategies available to the learner for effective studying and comprehension” (p.330). However, summarizing is regarded as a complex skill, as it requires students to relate new ideas with old ones and put unique ideas forward. According to Friend (2001) the summary must be short, include the writer’s most important ideas, be written in students’ own words and include the information that students need to study. Further, Wormeli (2004) and Garcia and Michaelis (2001) regard that summarizing involves spotting the major idea and the supporting ideas of each paragraph in a text, spotting the most important paragraph in a text, spotting the main idea of the text in general and using one’s own words by referring to the concepts and ideas in the text while writing a summary. Thus, in order to improve the qualities of students’ summaries, it is necessary to give training to them in summarizing a text.

O'Malley and Chamot (1990) define note-taking strategy as writing down key words and concepts in abbreviated verbal, graphic, or numerical form while listening or reading. Fajardo (1996) sees note-taking as a complex activity which combines
reading and listening with selecting, summarizing and writing. Note-taking is considered a good reading strategy. It is believed to improve learning of both oral and written materials. Nwokoreze (1990) believes that “it is during the note-taking stage that students reach the highest level of comprehension” (p.42). This opinion is reiterated by White (1996) according to whom note-taking is a useful technique in studying content, developing language skills and learning tasks in general. Cambrooke (2010) also claimed that it is a good idea to take notes from a textbook. Note-taking makes students active participants in their learning, helps them organize important concepts and remember information, and becomes one of their study aids. The beneficial effect of note-taking is discussed in terms of two major functions (Kiewra, 1987). The first belief is based on the idea that the process of recording notes facilitates learning which includes increasing students’ attention, raising awareness of text organization, storing the information into memory, and encouraging the learner to compare the material with previously learned information. This idea emphasizes the process functions of note-taking. The second belief is related to the review function of note-taking. It is equally important because the notes serve as an external storage of information that can be used in retrieving the content in delayed recalls or answering exam questions. In this approach, the product functions of note-taking are emphasized. The value of note-taking in reading comprehension necessitates teaching ESL/EFL learners appropriate strategies for taking effective and meaningful notes.

The literature on reading shows that successful readers are aware of these strategies and they purposefully or willfully use them, whereas poor readers are less aware of them and consequently are less effective in their monitoring activities during reading. This also emphasizes the need for teachers of reading to provide training in reading strategy use.

2.4.2.2 Writing Strategies

It can be understood from the literature on writing that (Chao, 1993; Flower and Hayes, 1981; You and Joe, 2001; Zhou, 2006) the whole writing process can be regarded as an operation of metacognitive behavior since writers not only know their writing strategies, but are also able to manipulate them automatically and
appropriately in different situations (Chin, 2003; Kauffman, Ge, Xie and Chien, 2008). In other words, writing is a complex process which involves a number of cognitive and metacognitive activities like brainstorming, planning, outlining, organizing, drafting, and revising. Therefore, instructors of writing should teach learners how to plan, organize, draft, revise and edit, and to consider audience, purpose and genre during the writing process (Hacker, 1998). Researchers have put these activities into different stages that Tompkins (1990) introduces five stages for describing the writing process: prewriting, drafting, revising, editing, and sharing. Berlin (1982) mentions the three stages of conception, incubation and production; Grave names three stages i.e., pre-writing, composition, and post-writing (cited. in Tompkins, pp. 69-70). Writing is not a linear process but a recursive one: “presenting data that would reflect the various stages of the students’ composing processes, stages usually characterized as pre-writing, writing, and revising, the students’ writing behaviors were not entirely amenable to this type of breakdown, a fact which in and of itself attests to the non-linear nature of writing” (Zamel, 1983, p.171).

In the **pre-writing stage**, the focus is on stimulating students’ creativity and letting them think about what to write and how to approach the chosen topic. To implement this stage effectively, Hedge (2005) suggests that teachers must ask students to remember the purpose of their writing and its audience. In other words, students should keep in mind the intended readers and the content of the text when they make a global outline for their writing. As a guideline for teachers, Brown (2001) lists the following classroom activities that could be implemented during the pre-writing stage: Brainstorming, Listing, Clustering and free writing. Brainstorming is often a group exercise in which all students in a group or class share their ideas about a certain topic, whereas listing is an individual activity in which the student is encouraged to write a lengthy list including main ideas and supporting details about a particular topic. Unlike listing, clustering shows connections between ideas. Clustering starts with the writer putting down a key word in the middle of a piece of paper and developing the topic through free association. Lastly, free writing, known by various terms such as wet ink writing, quick writing, and speedwriting, allows students to write quickly without stopping within a limited time.
During the **drafting stage**, students move from planning to actual writing. They transform the ideas planned into a temporary text. In this respect, White (1987) presents a list of activities that could be carried out by students at this stage: (1) associating the theme with something else; (2) defining it; (3) applying the idea; (4) describing it; (5) comparing it with something else; (6) arguing for or against the subject; and (7) narrate the development or history of it. In the drafting stage, students concentrate on getting ideas on paper without worrying about grammatical and mechanical errors. In this regard Fulwiler (1996) points out that the teacher and students should not expect error-free drafts at this stage. On the contrary, they should focus more on topic, organization and evidence, and ignore problems like spelling, punctuation and wordiness. Hedge (2005) also highlights the importance of focusing on content at this stage. She said “Good writers tend to concentrate on getting the content right first and leave details like correcting spelling, punctuation and grammar until later” (p.23).

In the **revision stage**, students decide how to improve their writing by looking at their writing from a different point of view. Revision does not mean mere correction of grammatical and spelling errors but improving the content and organization of the whole text. In the words of Tompkins (1990), “Revision is not just polishing writing; it is meeting the needs of readers through adding, substituting, deleting and rearranging material” (p.83). Similarly, Sommers (1980) emphasizes the significance of the revision stage in the writing process, characterizing the revision process as the writing process itself. She is also of the opinion that in the revision process, writers not only polish their writing, but they also develop their ideas. Therefore, teachers should direct students to improve their content and organization of ideas at this stage. In this connection, Brown (2001) prompts teachers to provide students with specific directions for revision “through self-correction, peer-correction and instructor-initiated comments (p.355).

The literature shows that effective writers use metacognitive awareness and knowledge during each stage of the writing process. According to Bereiter (1980), good writers have a well-developed executive or control structure which oversees and manages the overall writing process. Dautie (1985), Englert (1990), and Flower and Hayes (1980) have reiterated that good writers self-regulate and self-monitor their
writing performance through internalized self-talk. By engaging in self-talk, an individual mediates one’s own thought process during the stages of writing. Thus it is important to train students in process writing to get good final products.

2.4.3 Explicit Instruction in Reading and Writing Strategies

The literature shows that skilled readers and effective writers use strategies and also that strategy instruction leads to improvement in the reading and writing skills of unskilled readers and writers.

Unskilled readers and writers can be transformed into skilled readers and writers by teaching them the two dimensions of metacognition: knowledge of cognition and regulation of cognition. Knowledge of cognition includes declarative knowledge, procedural knowledge and conditional knowledge (Jacobs and Paris, 1987; Paris, Lipson and Wixson, 1983; Schraw and Moshman, 1995). Declarative knowledge refers to “knowledge that a person may have about his or her abilities and about the salient learning characteristics that affect cognitive processing” (McCormick, 2003, p. 80). In reading, declarative knowledge includes a learner’s understanding of reading strategies and knowing what summarizing, skimming, inferring and taking notes are. Similarly, declarative knowledge in the case of writing is about knowing what brainstorming, outlining, drafting and revising mean. Procedural knowledge is identified as “knowledge of how to execute procedures such as learning strategies” (McCormick, 2003, p. 80), or how to use particular reading/writing strategies. This knowledge requires learners not only to understand what reading and writing strategies are, but also to know how to use them. Conditional knowledge goes further and includes when, where and why learners use particular strategies and assessment of their effectiveness. The second dimension in metacognition, regulation of cognition, includes planning, monitoring, testing, revising and evaluating strategies (Baker and Brown, 1984). Van Kraayenoord and Goos (2003) assert that planning, choosing appropriate strategies, monitoring progress, evaluating outcomes and revisiting employed plans and strategies are involved in the regulatory mechanisms.

Learners acquire reading and writings strategies to some extent most of the time, but explicit or formal instruction in the application of strategies has shown improved understanding. This view is supported by Allington (2001): “Students benefit from
teacher-directed instruction in comprehension strategies. Most struggling readers (and many not so struggling readers) benefit enormously when we can construct strategy lessons that help to make the comprehension process visible” (p.98). According to Beckman (2002), instruction in strategies in an explicit way involves (1) describing the strategy and its purpose - why it is important, when it can be used and how to use it; (2) modeling its use and explaining to students how to perform it; (3) providing ample, assisted practice time-monitoring, providing cues and giving feedback; (4) promoting students’ self-monitoring and evaluation of their strategy use; and (5) encouraging continued use and generalization of the strategy in other independent learning situations. In the words of Tierney, Readence and Dishner (1995), explicit strategy instruction aims to help students in reading comprehension skills and strategies that can be applied to other reading situations without teacher support.

Supporting this point of view, Palincsar (1985) suggests that an effective instructional program should identify complementary strategies that should be modeled by an expert and acquired by the learner in a context reinforcing the usefulness of such strategies.

Thus, it is evident from the literature that explicit instruction in reading strategies and process approach to writing would enable learners to exploit their reading and writing skills effectively and independently in academic and professional settings.

2.5 Learning Styles and Individual Differences

Learners have different strengths and learn in different ways. Psychologists call these individual differences learning styles. Learning styles have gained much attention in recent years across different age groups and learning environments. Rayner (2006) also underlines this fact and says: “a heady mix of metaphor, sound bites and polemic ... an academic and political debate in which far more heat than light is generated” (p. 5). In other words, learning style is complex to define, “there is no one comprehensive model which describes the most important learning style preferences, and there is also a question about the stability of learning styles” (Kinshuk, Liu and Graf, 2009, p.740). However ‘learning style is variously defined by several researchers in the following ways:
• grouping students according to a number of scales pertaining to the ways they receive and process information (Felder and Silverman, 1988).

• tendencies for preference to process information in certain ways (Jonassen and Grabowski, 1993)

• composite of cognitive, affective and psychological characteristics that serve as an indicator of how an individual interacts with and responds to the learning environment (Keefe, 1979; Duff, 2000).

• different ways students prefer while they concentrate on process and internalize and retain new and difficult information (Dunn and Dunn, 1979). They identified five key dimensions on which student learning styles differed: 1) environmental, 2) emotional support, 3) sociological composition, 4) physiological, and 5) psychological elements.

• an individual’s preferred ways while they receive and process information (Kolb, 1984).

• “personal qualities that influence a students’ ability to acquire information to interact with peers and the teacher, and otherwise to participate in learning experiences” (Grasha, 1996, p.41). He identified six qualities among the learners and referred to them as avoidant, participative, competitive, collaborative, dependent and independent.

According to Gardner (1983) learners possess different kinds of minds and therefore learn, remember, perform, and understand in different ways. He has identified six learning styles namely visual-spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, linguistic and logical-mathematical. It is very important for teachers to take into account these differences during instruction and not try to force students into a single mould.

With the advent of ICT in education, it has become necessary to understand young learners’ preferred learning environments in addition to understanding their attitudes, beliefs, communication and values. It is worth mentioning that the culture of young digital learners differs from the culture of the previous generation who were only exposed to analogue technologies like broadcast radio, television and print-based
texts. For these young learners computers are not considered to be technology but rather a natural part of life, the Internet is better than TV, multitasking is a way of life and staying connected to others through the use of technologies is essential (Frand, 2000). Prensky (2001) also points out that today’s students are surrounded by an ubiquitous digital environment and as a result they “think and process information fundamentally differently from their predecessors” (p.1).

The deployment of ICTs as learning tools is a useful way of providing a variety of learning paths for young learners with different learning abilities. Gardner (1999) sees the potential for individualized learning “to be enhanced significantly by technology” (p.179). He also states that, “It is not easy for teachers to provide individualized curricula and pedagogy…Happily, we have in our grasp today technology that should allow a quantum leap in the delivery of individualized services for both students and teachers…that addresses the different intelligences (and) that allows students to exhibit their own understandings in diverse symbol systems (linguistic, numerical, musical, graphic, and more)” (p.179). According to Roush (2005), with “the emergence of the web as a platform for personal publishing and social software” (p.49), websites with links to multimodal texts (e.g. virtual tours, video and audio), informational websites that encourage the sharing of content and networking such as blogs and wikis, websites that allow users to categorize and ‘tag’ uploaded data, a growing space for open source applications to be developed and social software applications such as GPS receivers, PDAs and 3G mobile phones became possible.

2.6 Instructional and Learning theories

The Webster’s defined a theory as a plausible or scientifically acceptable general principle offered to explain phenomena that have been observed over time and which existing knowledge cannot discredit.

Instructional theories describe a variety of methods of instruction indicating when to use or not to use each of the methods. Learning theories are conceptual frameworks describing how information is absorbed, processed and retained during learning. Learning theories and instructional theories are indistinguishable. The line dividing them is thin, as De Villiers (2002), points out: “a strong relationship exists between them [learning and instructional theories], in that the descriptive theory
facilitate understanding of why design theories work and, in the absence of design theory, the descriptive theory helps the practitioner to select instructional methods that meet the given needs. There is no rigid line between learning and instructional theory, and between descriptive theories and prescriptive practices” (De Villiers, 2002, p.86).

Both instructional and learning theories can be broadly classified into behaviorism, cognitivism, constructivism and connectivism. This section briefly discusses behaviourist and cognitivist theories and elaborates on constructivist and connectivist theories, as these two theories have much relevance to the present study. Behaviorism, also known as behavioral psychology, is a theory of learning based upon the idea that all behaviors are acquired through conditioning. Cognitive theory is an approach to psychology that attempts to explain human behavior by understanding the thought processes. This theory is further divided into social cognitive theory and cognitive behavioural theory. The social cognitive theory believes that for effective and positive learning to occur an individual should have positive personal characteristics, exhibit appropriate behaviour and stay in a supportive environment. The cognitive behavioural theory believes that individuals tend to form self-concepts that affect the behaviour they display. These concepts can be positive or negative, and can be affected by a person’s environment. The constructivist and connectivist theories encourage socialization, independent learning and learning in a flexible environment. They are best suited for higher level learning such as college level or the working world.

Constructivism is a learning theory that believes that people construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences. When one comes across new information, one would connect it with one’s previous ideas and experience, and then may accordingly change the belief one had or may discard the new information as irrelevant. In any case, the individual is the active creator of his own knowledge.

The concept of constructivism has its roots in classical antiquity where Socrates’s questions led his students to realize for themselves the weaknesses in their thinking. However, it was the theories of childhood development and education by Jean Piaget and John Dewey that led to the evolution of constructivism in twentieth century. Piaget believed that humans learn through the construction of one logical structure
after another and that the logic of children and their modes of thinking are initially entirely different from those of adults in the initial stage. The implications of this theory and his applications have shaped the foundation for constructivist education. Dewey (1938) believed that education has to be grounded in real experience and emphasized that any doubts related to happening of learning should be clarified by engaging in sustained inquiry, by studying, pondering and considering alternative possibilities and by arriving at one’s own belief grounded in evidence. Thus inquiry is a key part of constructivist learning.

Among the educators, philosophers, psychologists and sociologists who have added new perspectives to constructivist learning theory and practice are Vygotsky (1962), Bruner (1960), and Ansubel (1968). Vygotsky (1962) introduced the social aspect of learning into constructivism. He defined the “zone of proximal learning” (p.86), according to which students solve problems beyond their actual developmental level (but within their level of potential development) under adult guidance or in collaboration with more capable peers. Bruner (1960) initiated curriculum change based on the notion that learning is an active, social process in which students constructs new ideas or concepts based on their current knowledge.

The constructivist principles of instructional design emphasize the need to consider the conditions that best allow learners to build their learning successfully. According to Driscoll (2005), the constructivist conditions for learning are in:

- Embedding learning in complex, realistic and relevant environments;
- Providing for social negotiation as an integral part of learning;
- Supporting multiple perspectives and the use of multiple modes of representation;
- Encouraging students to take ownership in learning; and
- Nurturing self-awareness of the knowledge construction process.

In other words, in the constructivist classroom, learners should be actively involved, the environment should be democratic, activities should be interactive and student-
centered, and the teacher should facilitate the process of learning in which students should be encouraged to be responsible and autonomous.

Seymour Papert’s (1993) groundbreaking work in using computers to teach children has led to the widespread use of computer and information technology in constructivist environments. Modern educators who have studied, written about and practised constructivist approaches to education include Glaserfeld (1995), Duckworth (1987), Forman (1983), Schank (1982), Brooks and Brooks (1993). Koohang (2009) had advocated a model based on constructivism learning theory in e-learning environments. The model includes three categories for elements of Constructivism: the design of learning activities, learning assessment and instructor’s roles. Learning activities should be designed in such a way the learners are actively involved in the process of learning. The design of learning activities should include collaboration, cooperation, multiple perspectives, real world examples, scaffolding, self-reflection, multiple representations of ideas and social negotiation. Learning assessment elements according to Koohang (2009) consist of instructor assessment, collaborative assessment and self-assessment. Further, the instructor’s roles are coaching, guiding, mentoring, acknowledging, providing feedback and assessing student learning.

Connectivism is a learning theory promoted by Downes and Siemens. According to Downes, connectivism is a theory which believes that knowledge is distributed across a network of connections and that the learner constructs knowledge while learning by travelling through those networks. It has been lauded as the right theory for the digital age. According to connectivism,

- Learning occurs when knowledge is actuated through the process of a learner connecting to, and feeding information into, a learning community. Siemens (2003) states, “A community is the clustering of similar areas of interest that allows for interaction, sharing, dialoguing, and thinking together” (p.2). In the connectivist model, a learning community is described as a *node*, which is always part of a larger network. Nodes arise out of the connection points that are found in a network. According to Downes (2006), a network comprises two or more nodes linked in order to
share resources. Nodes may be of varying size and strength, depending on
the concentration of information and the number of individuals who are
navigating through a particular node.

• Knowledge is distributed across an information network and can be stored
in a variety of digital formats. Learning and knowledge “rest in diversity
of opinions” (Simens, 2008, p.5). Learning happens through the use of
both the cognitive and the affective domains, thus providing evidence to
the fact that cognition and the emotions both contribute to the learning
process.

• Skills that contribute to learning are the ability to seek out current
information, and the ability to filter secondary and extraneous information.
“The capacity to know is more critical than what is actually known”
(Siemens, 2008, p.5). The ability to make decisions on the basis of
information that has been acquired is considered integral to the learning
process.

• The learning process is cyclical, in which learners connect to a network to
share and find new information, modify their beliefs on the basis of new
learning, and then connect to a network to share these realizations and find
new information once more (Kop and Hill, 2008, p.1).

• Learning is considered a “... knowledge creation process ... not only
knowledge consumption” (Kop and Hill, 2008, p.1). One’s personal
learning network is formed on the basis of how one’s connection to
learning communities is organized by a learner.

• Peripheries of knowledge fields are porous and allows for the
interdisciplinary connections to be made. Siemens asserts, “The ability to
see connections between fields, ideas, and concepts is a core skill”
(Siemens, 2008, p.5).

Consequently, the connectivist instructional design should,

• Provide for a diversity of opinions;
• Allow students to create connections between specialized nodes and learning sources;
• Foster their capacity to learn (teach metacognitive learning skills);
• Increase their ability to see connections between fields, concepts, and ideas;
• Train students to build networks that will allow them to be updated in their field; and
• Allow students to choose what to learn and how to learn.

2.7 Instructional System Design Model

Instructional design, also called instructional system design (ISD) is the practice of creating “instructional experiences which make the acquisition of knowledge and skill more efficient, effective, and appealing” (Merrill et al., 1996, p.6). Instructional system models offer systematic guidelines for instructional designers to create a workshop, a course, a curriculum, an instructional program, a training session, or the instructional materials and products for educational programs. ISD is a process to ensure that learning does not occur in a haphazard manner, but is developed using a process with specific measurable outcomes. The responsibility of the instructional designer is to create instructional experiences which ensure that learners will achieve the goals of instruction. Some examples of such instructional system design models are ADDIE Model, Dick and Carey Model, Morrison, Ross and Kemp Model, Smith and Ragan’s Model, and so on (Andrews et al., 1980).

Dick and Carey Model (1978) is one of the most widely used instructional design models as it is versatile and requires a ten-step process that incorporates all aspects of design and implementation of a curriculum or program. It addresses instruction as an entire system, focusing on the interrelationships between context, content, learning and instruction.

In the age of information and communication technologies (ICT), with the growing popularity of the use of computers and the internet for education, a need for an exclusive model for e-learning curriculum has been expressed. The same models used
to develop classroom instruction were being used for creating e-learning instruction. “Too often e-learning simply regurgitates pages of text pulled from books and classroom courses. E-learning more often than not amounts to e-reading” (Honey, 2001, p.201). Munro and Rice-Munro (2004) also viewed e-learning as a classroom instruction on the Internet sans the instructor. In this type of instruction, the instructor selects the informational content and presents it for access by the learner; the learner chooses from the information and gets feedback through programmed instruction and does not incorporate interactions at any level. The type of instruction may be suitable for providing reinforcement for whatever had been learnt earlier but will not help in learning and comprehending new information on stand-alone basis. Therefore, an e-learning instruction model should focus on including interactional aspect into instructional design. It should focus on including four levels of interaction: interaction of the learner with the interface, content, instructor and fellow learners.

**Figure 2.1: Adapted from Dick and Carey by Schneiderheinze (2005)**

It has been generally assumed that many of the traditional models of instructional design can be adapted for e-learning instruction by adding steps to incorporate learner interaction into the process of instruction. The Dick and Carey model has been found
to work well for e-learning curriculum with minor modifications (Schneiderheinze, 2005). Taking into consideration the importance of interaction in e-learning, Schneiderheinze’s adaptation (Figure 2.1) included scope for interaction as one of the steps of instructional design. He included interaction with the interface, content, instructor and peers as an additional stage to the ten stages listed by Dick and Carey. The Dick and Carey model is used intact until the ‘Develop and Select Instructional Material’ stage in Schneiderheinze’s adapted version. After developing and selecting the instructional materials, the curriculum should be evaluated for interaction by the learner with the interface, content, instructor and fellow learners. The process should then go back to revision and development until the evaluation fits the objectives outlined.

It is worth mentioning here that developing and selecting instructional materials play a vital role in instructional system design. They enhance, facilitate and make teaching-learning easy, lively and concrete. Therefore, it is necessary for teachers to consider factors like reliability, relevance and cost while selecting instructional materials. Several initiatives have been developed world wide towards open access to educational resources in the form of learning objects. A learning object is “a collection of content items, practice items and assessment items that are combined based on a single learning objective” (Cisco Systems, 1999, p.1). Learning objects go by many names, including content objects, chunks, educational objects, information objects, intelligent objects, knowledge bits, knowledge objects, learning components, media objects, reusable curriculum components, nuggets, reusable information objects, reusable learning objects, testable reusable units of cognition, training components and units of learning. IEEE learning standard committee refers to learning object as “any entity, digital or non-digital, which can be used, reused or referenced during technology-supported learning” (Heng, 2002, p.2). Learning objects are the digital entities deliverable over the internet as any number of people can access and use them simultaneously (Wiely, 2000, p.3). “Such objects range from simple text to video demonstrations and interactive simulations” (Holzinger and Ebner, 2003, p.3).

2.8 Use of Technology for Language Learning
The use of technology in education dates back to the period when radio and television were used and over the years technology instruction has been redefined. Today technology instruction is associated more with instruction using computers and computer-operated equipment. The rise of computer-mediated communication and the Internet reshaped the uses of computers in education, particularly in language learning. The computer has now been transformed from a tool for information processing and display to a tool for information processing and communication. Education has been extended beyond classrooms to homes, libraries, Internet cafes and workplaces, where learners can decide what they want to learn, when they want to learn and how they want to learn.

During the early days of web development, web developers whom Kuwamoto (2002) called ‘hobbyists’ worked individually or in small groups. The next phase was the commercialization of web development dominated by coding specialists and web design teams. The third phase, which stressed increased productivity and reduction in costs, witnessed the evolution of web tools and technologies that were relevant to online distance learning materials. As a result course developers of web-based CALL today have various options of using web tools specifically designed for language learning purposes or adapting general web-based applications for language learning. In other words, trainers now could independently either present their learning content or adapt the material available on the Internet. This dispensable knowledge of technical aspects of computers and the Internet enables learners to opt for online learning.

Online learning is defined as educational material that is presented on a computer (Carliner, 1999) and online instruction as an innovative approach for delivering instruction to a remote audience, using the Web as the medium (Khan, 1997). However, there are mixed views related to the role of the medium in influencing student learning. Media in instruction is a mere vehicle for delivery of course material for some and a platform for active learning for others. The analogy of a delivery truck is used to explain opinion concerning instructional media (Clark, 1983). According to Clark, instructional media are “mere vehicles that deliver instruction but do not influence student achievement” (Clark, 1983, 2001). It has been suggested that learning is influenced more by the content and instructional strategy in
the learning materials than by the type of technology used to deliver instruction (Schramm, 1977). It is argued that the particular attributes of the computer are needed to bring real-life models and simulations to the learner; thus, the medium does influence learning (Kozma, 2001). According to Rovai (2002), the delivery medium is not the determining factor in the quality of learning; rather, the design of the course determines the effectiveness of the learning. Therefore, online learning involves more than just the presentation and delivery of materials using the Web. In other words, it should have an instructional design and material that focuses on the learner and the learning process.

In brief, in online learning web tools are used either as an instructional environment, a major medium or as a delivery system integrated into a major medium. Using these media educators design their instruction, prepare their own content and/or reuse the existing content which can be easily accessed by learners. They can also facilitate learner interaction with the interface, content, instructor, fellow learners and enable the learner to gain support and acquire a rich learning experience. This kind of online learning has been defined as “the use of the Internet to access learning materials; to interact with the content, instructor, and other learners; and to obtain support during the learning process, in order to acquire knowledge, to construct personal meaning and to grow from the learning experience” (Ally, 2004, p.5) could be realized with the use of second generation of web applications.

2.9 Web 2.0 and its Impact on Education

The development of the term ‘Web 2.0’ is usually ascribed to the American media company O’Reilly Media Inc. The term was used by Tim O’Reilly, the founder of O’Reilly Media Inc., to identify common features and business characteristics of a group of innovative Internet companies rather than describe a group of technologies. Different researchers and scholars offer various definitions. To list a few:

- the term Web 2.0 stands for not just a new version of existing Web technology, but that it represents actual “changes in the communicative uses of the underlying Web platform” (Warschauer and Grimes, 2007, p.2).
• the term has come to be associated with ‘social software’ and user generated content (Anderson, 2007).

• Web 2.0 is “a Web technology that aims to enhance creativity, information sharing and collaboration among users” ((Tu, Blocher, and Ntoruru, 2008, p. 336).

• Web 2.0 is a rather loose concept that describes a set of dazzling technologies currently in rapid development (Zhang, 2009).

• “Web 2.0 is both a platform on which innovative technologies have been built and a space where users are as important as the content they upload and share with others” (Cormode & Krishnamurthy, 2008, p.1).

Web 2.0, otherwise called social web or read/write web, has gained increasing popularity in education and has had profound impact on education. Its popularity is due to the following reasons: (1) a significant shift in the nature of contemporary learners, (ii) the nature of Web 2.0 technologies, and (iii) the pedagogical implications of Web 2.0 tools.

A popular characterization of contemporary learners is that they are ‘digital natives,’ who have grown up in a world of computers, mobile telephony and the internet, and now lead lives that rely upon digital media. These ‘digital natives’ are seen to stand in stark contrast to older generations of ‘digital immigrants’ (Prensky, 2001) who adopted digital media later on in their lives, having grown up without them. The young learners are commonly referred to as ‘homo-zappiens’, ‘net savvy’, ‘power users’, ‘internet generation’, ‘generation M’ (media), ‘generation V’ (virtual) or ‘generation C’ (Roberts, Foehr and Rideout, 2005; Veen and Vrakking, 2006) referring to characteristics such as connected, creative and click. These digital natives expect technology-assisted fluidity in all aspects of their lives, including the ways in which they learn and are educated. They have distinct expectations about education that involve learning which is characterized as, accessible on-demand, and available at any time, any place, or any pace.
The nature of web 2.0 technology is advantageous to the present-day educators and learners in several aspects. Firstly, the most important aspect of Web 2.0 is the cloud application. Therefore, no software download is required but only web browser and Internet connection. Secondly, the same application can be accessed on many different devices like desktops, laptops, smart phones, tablets, net books, etc., from anywhere in the world. Thirdly, many tools are available free of cost. Fourthly, most of the tools are asynchronous and do not require the users to be online at a scheduled time. Fifthly, they offer convenience in storage. Sixthly, they require lower-specification hardware, as the application is not run locally and so Internet devices become cheaper. Seventhly, HTML is the common language of the Internet and unites all the different devices. Any application written in HTML is almost certain to run on all devices that have an up-to-date web browser. The users need not use or have knowledge about HTML language while using Web 2.0 tools. Lastly, the technical skills required to use these tools are very limited and Wheeler et.al, (2005) use the term “transparent technology” when referring to tools that are easy to use.

All these make Web 2.0 an easy and popular educational tool that enables communication among students, staff and the wider academic community. It represents a shift to a more social, personalized, open, dynamic, emergent and knowledge-pull model of e-learning. It makes students educational producers and consumers, thereby giving students an active role in their own education (Martin et al., 2011). Bruns (2008) has called such changes a shift toward ‘produsage’, with the distinction between producers and users of content disappearing. Thus, low cost, ubiquity, accessibility and ease of use are all potential affordances making Web 2.0 technologies more attractive than traditional software in teaching and learning environments (Ajjan and Hartshorne, 2008). By using an array of new technologies, teachers have become facilitators and guides, empowering students to self-organize, self-regulate, collaborate, communicate and, perhaps most importantly, become more active participants in the learning process. Web 2.0 tools include Wikis, Blogs, podcasts, social networking sites like My Space, Twitter, Facebook and social bookmarking sites like Delicious, Blogs and Wikis having been the most studied Web 2.0 tools to date (Wang and Vasquez, 2012).

2.10 Web 2.0 Tool, Wiki
Wiki is defined as “a collection of web pages designed to enable anyone who accesses it to contribute or modify content, using a simplified markup language” (Wikipedia, 2008). The term ‘Wiki’ is derived from the Hawaiian phrase, wiki-wiki, which means quick.

Wiki is often described as one of the most popular Web 2.0 technologies (Leslie and Landon, 2008) for a number of reasons, viz., no requirement of specific operating system or applications software, possibility of creating associative hypertext, facility of arranging links as desired by users, feasibility of protecting pages, ability to customize access and the prospects of tracking edits and comparing different versions of edits and ability to rollback to earlier versions. This functionality of editing, tracking and retrieval of information makes Wiki unique among other Web2.0 tools.

A study of the literature on Wiki revealed that the potential use of Wiki in the realm of education was explored and felt only much later than its introduction by Cunningham in 1995. Although Wiki was introduced more than ten years earlier, its use was relatively new in academia (Chao, 2007; Evans, 2006; Schaffert, Bischof, et al., 2006). Higher education has only recently begun to explore the potential educational value of Wikis as a means to promote deeper learning and integration of learning experiences both inside the classroom and outside the classroom (Chen et al., 2005). The popularity of Wikis has begun to attract the attention of educators, who expect that Wikis will facilitate not only communication but also collaborative finding, shaping, and sharing of knowledge, all of which are essential in an educational context (Reinhold, 2006). There is optimism regarding widespread acceptance of Wikis in educational circles. Their advantages over other collaborative tools are that Wikis “capture version changes, allow for distributed administration, and persist – Wikis …[are] a means to organize and share knowledge …. It is likely that given the knowledge distributed among members of an academic community, such a technology could prove useful” (Hemphill and Yew, 2007, p. 274).

Wikis are an exceptionally useful tool and can be productively used for educational purposes. The literature on Wiki also reveals different ways of using them in education. For example Mader’s site (2006) gives a comprehensive list of their possible uses in education, such as its uses as simple webpage creation, project development with peer review, group authoring, tracking group projects, data collection and class/instructor reviews. The site also contains writings by several
authors on topics like integrating a Wiki in instruction, collaborative writing projects, group Wiki projects, using Wikis within course management systems, constructing science knowledge and academic publishing. Wiki can also be used in learning as an information resource, a collaboration tool, a tool for building e-learning content, and as icebreakers (Naish, 2006). The use of Wikis in project-based learning, collaborative story writing, and interdisciplinary and intercultural learning has also been pointed out (Schaffert, Bischof, et al., 2006).

With the demand for education outpacing finite classroom space, Web 2.0 tools like Wiki not only provide richer learning experiences but also offer a means to serve the needs of young learners. According to Liu (2010), the read-write Web - social media - had only two primary applications. Firstly, social media are used as a collaborative teaching and learning resource, augmenting current learning environments. Content management systems have been on the forefront of this trend. Secondly, it might be used to extend the learning environment, providing a secondary learning channel. A common complaint against the traditional course management system is that it only served as a platform for faculty to distribute handouts and students to check grades. “The role that the systems play most often is like that of an advanced photocopier, allowing faculty members to deliver materials to their students with greater ease than was previously possible. That use can be important, but it is only part of what the systems could do” (Maloney, 2007, p.26). Therefore the next generation CMS must be centered on students learning through interaction, communication and collaboration in addition to course administration.

When much of research on Wiki in education focuses on incorporating Wiki as a supplementary tool into both classroom learning and online course using LCMS, the possibility of using Wiki as an alternative means to deliver course content has now become an area of research interest to educators. In recent years, educators have become aware of the LMS option, an array or mash-up of cloud-based tools and services that are accessible to everyone and a Wiki page could be used as a base or hub where course topics and activities could be outlined.

2.11 Implications of the Theoretical Discussions on the Present Study
Considering the importance of teaching reading and writing skills, the researcher limited the training for TOEFL aspirants to reading and writing. Further, she adopted for her training explicit instruction in reading and writing skills and strategies.

The role of new technologies in the digital era, the nature of young learners, the simple technical skills requirement for users of Web 2.0, the educational potentials of Web 2.0, unique features and functionality of Wiki like creation and arrangement of hyperlinks as required by the users, editing content, tracking and retrieving the content edited, facilitating collaboration, communication and interaction were also taken into consideration for providing the training using the Web 2.0 tool, Wiki. It is worthwhile to mention here that the students who participated in the study also wanted an alternative learning environment for additional training courses that would be flexible enough to overcome time and space constraints and that would not affect their regular course of study. In order to cater to students with different learning preferences and abilities, the researcher integrated into the Wiki instructional materials in different formats like video, images, audio, PowerPoint presentations, games and quizzes that are freely available over the internet.

Since the training was planned in a web based environment the researcher felt the need to provide facility for interaction at four levels. Further, taking into account the facility of posting and editing information in Wiki, the researcher facilitated interaction by designing the training programme using Schneiderheinze’s adapted version of Dick and Carey Instructional Design Model.

2.12 Conclusion

Thus, the elaborate description of skills training, the language learning theories, the instructional system model, use of technology for language learning and integration of Web 2.0 particularly Wiki for language teaching have shown the relevance of conducting the current research in the ESL classroom. The next chapter will discuss various research studies conducted so far and their implications for the current research.