CHAPTER II

LITERATURE REVIEW

A. Review

In this chapter, the researcher discusses the related literature, which becomes the basis of the study. This chapter is divided into two parts. The first is the literature review; which involves some important theories related to the research. The second part is the theoretical framework; which provides the summary of the specific theories, which are used as the guideline to answer the problem.

There are some points to be discussed in the literature review. They are perception, mind mapping technique, and reading.

1. Perception

This part presents the discussion of perception. It consists of the definitions of perception, process of creating perception and factors influencing perception

1.1.   Definition of Perception

According to Rao and Narayan (1998:329-330), perception is the set of processes of selecting, organizing, and interpreting the input from individuals' senses (hearing, smell, touch, and vision, taste), in order to give meaning to their environment. Another definition is also stated by Szilagyly and Wallace (1983). They defined perception as the process by which individuals attend to incoming stimuli, organize and then interpret such stimuli into a message that in a turn

Microsoft Encarta world English Dictionary (2011) defines perception or perceiving as the process of the senses to acquire information about the surrounding environment or situation. Mueller gives more specific definition concerning perception. He says,perception is the process by which we obtain first-hand information about the world. As a concept, it overlaps with recognition: but perception involves more – the distinctive effects of experience. Perception also has a responsive aspect; it entails discriminative, selective responses to the stimuli in the immediate environment (Mueller, 1974).

In addition, according to Huffman et. al. (1997) perception is the process of choosing, organizing, and interpreting the sensory data into the mental representation of the real situation or object. In accordance with stimuli to be a perception, there are some steps in the process of perception. According to Huffman et. al. (1997) perception has three steps. The steps are:

Selection:

   a. A person selects the stimuli, which he will pay attention.

   b. Organization: After he has selected the stimuli, he must arrange and organize the stimuli into patterns and principles, which will help him to understand the information on what we pay attention.

   c. Interpretation: this is the final stage of perception. This stage can be influenced by some factors, such as early life experiences, perceptual, expectancy, cultural factors, need and interest, and frames of reference.

Therefore, perception can be concluded as the processes by through the stimuli are selected by sensory receptors to interpret in order to give meaning to something, which exists in people surrounding.

1.2 The Process of Creating Perception

Altman et. al. (1985), explain that the selection of the data from stimulus by individual's sensor is the beginning step of perceptual process. Sensory receptors store are stimulus that are obtained from the surrounding, and then proceed it to brain. They state "the sensor select the data from stimulus and allow individual to interpret sensory message. Then, perception is formed after the brain interprets the stimuli. Finally, the result of individuals' perception leads him to behavior sense.
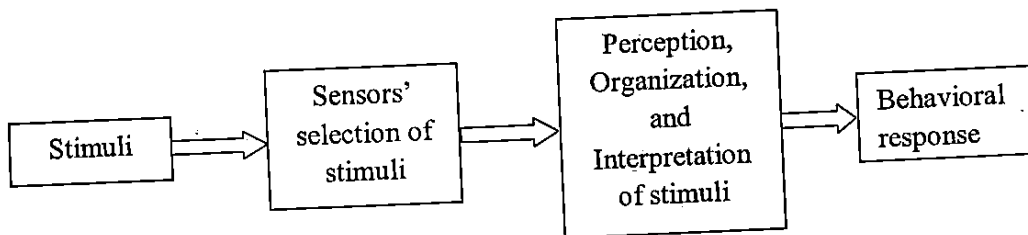
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┌─────────┐    ┌──────────────┐    ┌──────────────┐    ┌──────────────┐
│ Stimuli │ ⇒  │   Sensors'   │ ⇒  │  Perception, │ ⇒  │  Behavioral  │
│         │    │ selection of │    │ Organization,│    │   response   │
│         │    │   stimuli    │    │     and      │    │              │
│         │    │              │    │Interpretation│    │              │
│         │    │              │    │  of stimuli  │    │              │
└─────────┘    └──────────────┘    └──────────────┘    └──────────────┘
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Figure 1.1 the Perceptual Process

Altman et. al. (1985)

1.3 Factors Influencing Perception

According to Altman et. al. (1985) there are number of factors which can affect someone to have perception toward something. They are:

First, selection of stimuli, each person selects certain stimuli. The selection of stimuli will be different from one person to another. The different selection of stimuli because of each person has different interest toward meanings.

Second, organization of stimuli; the selected of stimuli should be organized in order to meaningful. States that perceptual organization of information can help us categorize sensory inputs. The categorization will make the complexity of the information become simpler until a person can interpret the stimuli as meaningful information. Altman et. al. (1985)

Third, the situation; each person has different expectation towards a situation happened around him or her. The expectation toward a situation may affect what he or she perceived. Altman et. al. add the familiarity with the situation and person's past experience also affects what she or he perceived.

The last factor which influences someone's perception is self concept. Self-concept is defined as the way someone perceives his or herself. The way people feel and see themselves will affect their perception of surrounding. Altman et al added that the self-concept is very important

2. Mind Mapping Technique

There are many techniques which can be applied in reading activity. Mind mapping is one of the techniques that have been commonly used in college classrooms. Buzan (2003) states that by using mind mapping technique helps both lecturers and students to organize their new ideas in reading. However, the students should know briefly about mind mapping. This section consists of three parts to be discussed, namely definition of mind mapping, significance, and the use of mind mapping.

2. 1 Definition

According to Buzan (2003) mind mapping is an expression of radiant thinking and is therefore a natural function of the human mind. It is a powerful graphic technique which provides a universal key to unlocking the potential brain. Buzan (1994) also stated that it harnesses the full series of cortical- skills, word, image, number, logic, rhythm, color, and spatial awareness in single, uniquely powerful manner.

Halen (2009) stated that mind mapping is a popular brainstorming tool and learning of visually arranging ideas and their interconnections. It can be used to graphically arrange the linkages of some central concept or issues into memorable tree like diagrams. Hofland (2007) stated that mind mapping is brain- friendly way to study, memorize, and take notes.

Buzan (1994) also stated that mind mapping is a kind of technique to note

cortical skill. It helps the learners to organize and get idea easily from the mind mapping technique. Mind mapping enhances students' thinking skills.

Mind mapping can be described as a web like graphic displays, Johnson and Pearson (1978) developed this mind mapping technique. He stated that mind mapping is graphic arrangement of words and it shows how new words and ideas are related to each other within the text.

From that definition, the researcher comes to a conclusion about definition of mind mapping; it is the concept of our brain like a tree or map by starting a topic in the center and have topic branches to the sub topics. Mind mapping is a method for managing information and the certain ways to plan our ideas.

2.2 Benefits of Mind Mapping

By understanding the concept of mind mapping technique, it is important to know the benefits of mind mapping technique too. It will help the researcher to implement the mind mapping technique and encourage the students' motivation in reading text. Identifying the benefits of mind mapping technique, the researcher exploits the technique to improve the students' skills in reading comprehension.

Readers should obtain benefits in every technique they apply. In mind mapping, readers can attain several advantages which can help them in their

To begin with, mind mapping helps students recall their memory. Mind mapping is likely the most effective way to remember things. The independence and opportunity in mind mapping technique enable students to visualize their notes into particular symbols, signs, pictures, and color that might be as the most effective remembrance. The implementation of picture and color is likely to be effective to remember things since students are free to draw any pictures on their imagination. By visualizing their imagination into real pictures and symbols, students are able to keep their memory longer. Buzan (2003) and Deporter (2003:152) also stated that brain thinks and remembers things in its own way, in the form of color and pictures. Deporter (2003) added further that brain does not proceed information in linear way. Brain does not keep information in a regular and tidy list as the traditional note taking has. Instead, brain keeps various information in a messy, untidy and complicated way. Therefore, by applying a technique as the way brain thinks and remembers things, students memorize any single details unconsciously.

Secondly, mind mapping develops right and left brain. Buzan (2003) stated that the left brain is mostly employed in standard note taking. Hence, right brain does not have any chances to develop itself. Furthermore, mind mapping answers this problem. Mind mapping enables left brain to carry out its functions well by writing out some words and number in linear way. Buzan

Buzan also highlighted, mind map used both left and right cortical skills. It helps the learner organize and get ideas easily from the mind map. Mind map demonstrated by Buzan really enhances students' thinking skills.

Thirdly, mind mapping takes notes better. According to Buzan (2003) mind mapping assists students to focus on main ideas. Mind mapping model facilitates students to concentrate on the most important points. Students could directly go to the major sub-parts after drawing the topic in a big circle in the middle page. Students are then able to go to the details by drawing some branches. By focusing on the central points since the beginning, students are able to organize their ideas more easily. In additional word, students have less chance to think about any other ideas which are not related to the topic.

In addition, Buzan (2003) also stated that the strengths of mind mapping technique are:

Mind mapping technique can help us think creatively, can help us imagine information easily. Mind mapping also can help in comprehend the texts which have been read. We can understand about the texts which have been read if we can write the texts again using the mind mapping. Mind mapping is not the end of the result. There will be someone who doesn't want buy our mind mapping. This is only a technique which helps us inscribe our ideas on paper, make hook or new stripe in our thinking, can manage swiftly, efficient and be more creative project (Buzan, 2003)

According to Buzan (2003) mind mapping also has advantages; mind mapping may be seen as brainstorming. Both mind mapping and brainstorming may be used to encourage the generation of new material, such as different interpretations and viewpoints. Mapping is structure, provides opportunity for convergent thinking, fitting ideas together, as well as thinking up new ideas, since it requires all ideas to be connected to the center and possibly to one another. The result of the brainstorming usually appears on paper as lists or grids, both unavoidably linear structures: top bottom, left to right.

Mind mapping also can be used well to summarize information. To consolidate information from different sources, to think through complex problems and as a way of presenting information that shows to overall structure of the subjects. Maps are also very quick to review. It is easy to refresh information in mind just before it is needed by glancing at once.

Next, mind mapping can provide effective understanding. Remembering the shape and structure of a concept map can provide the cues necessary to remember information contained within them. Maps engage much more of the brain in the process of assimilating and connecting facts than conventional notes.

In another idea the advantages of mind mapping are: make students creative, economize time, help to solve our problems, arrange and make our

2.3 The Use of Mind Mapping

According to Buzan (2003), principally mind mapping simply applies four aspects. They are words, color, lines, and pictures. Instead of making list with some bullets going down in a stripe paper, mind mapping enables students to take notes in tidy branches. On the other hand there were three steps to make mind map.

Firstly, by putting main idea in the middle and draw some branches from it, students are expressing their ideas and they have more spaces to go back and forth from one idea to another since they just add branches. In this case, students employee most of the left brain functions by applying words, logic, numbers and sequence. Thus, to make right brain works proficiently, mind mapping enables students to develop their imagination.

Secondly, putting pictures in the center help students remember thing or represent your main topic. Thirdly, draw some thick curved, connected lines coming away from the picture in the middle of page, one for each of the main ideas you have about your subject. The central branches represent your main sub- topic.

Thirdly, name each of ideas and if you want, draw a little picture of each this uses both side of the brain. Words are underlined throughout mind map. This is because they are keywords, and the underline. As the normal notes, show their importance. The last, from each of these ideas,

Add your thoughts on each of these ideas. These additional branches represent the details.

In addition, Hague (1987) outlines the major steps to mind mapping as below; write the topic on chalk board, have students' brainstorm words related to topic, write/list the words by the categories in form of a map, have the students provide labels for each category, discuss the words on the mind mapping technique and revise map after discussions. Furthermore, mind mapping can be used for the language skills such as reading and writing. It can be used for pre and post writing, for teaching of study skills and for link with reading and writing instructions.

3. Reading

Reading is the skill that becomes the main object of this study. Therefore, it is important to know what reading is and what aspect related to the skills are. This part discusses the definition of reading, the purpose of reading, factors affecting to achievement on reading and the micro-skills of reading.

3.1 Definition of reading

According to Carrell (1988) reading is receptive language process. It is a psycholinguistic process in that starts with a linguistic surface presentation encoded by a writer and ends with meaning which reader construct. There is thus essential interaction between language and thought in reading.

Nunan (2003) propose, that reading is thinking; it is an active process of identifying important ideas, comparing, evaluating, and applying them. In reading readers build a smooth process of combining information from a text

and their background knowledge to build meaning and readers should possess the ability to make sense of written symbols.

Another view on reading comes from Corwin (1982) reading can be defined loosely as the ability to make sense of written or printed symbols. The reader uses the symbols to guide the recovery information from his or her memory and subsequently uses this information to construct a reasonable interpretation of the writers' message.

Based on the explanation of some experts above, it can be concluded that reading is the process to interpret the meaning from the text by combining information from a text with the reader background knowledge to build meaning and making sense to get the idea, information and meaningful from the writer and reading also provides a situation of the readers to analyze what the writers' purpose in text, so they can get meaning, message and information what they are read.

3.2 The Purpose of Reading

The overall goal of reading is to have good grasp of the main ideas and supporting ideas and to relate those main ideas to background knowledge as appropriate Grabe and Stoler (2002)

In addition, there are several purposes of reading as proposed by Grabe and Stoler (2002) those are; reading to search for simple information and reading to skim; it means simple information is a common reading method. In

First, reading to search for information and to skim. Reading to simple information is a common purpose of reading. It is used so often in reading tasks that is probably seen as type of reading ability. In reading to search, we typically scan the text for particular bits of information or specific what we are searching for. This skill means that we do not have to read every word or line. For example, we usually search trough telephone directory to find key information, either or address, and telephone number.

Second, reading to learn from the text. Reading to learn is usually carried out at a reading rate somewhat slower than general reading comprehension. It is primarily due to reading and reflection strategy to help remember information. Furthermore, it makes stronger demands than general comprehension to connect information with background knowledge. For instance, connecting a character, events or concepts, or connecting possible causes to know events, Grabe and Stoler (2002) Reading to learn typically occurs in academic and professional context in which somebody has to learn considerable amount of information from text. Reading to learn from a text requires anilities to: remember main ideas as well as number of details that elaborate the main and supporting ideas in the text.

Third, reading to integrate information, write and critiques texts. These uses require critical evaluation of the information being read so that the reader can decide what information to integrate and how to integrate it for the reader's goal. In this opinion, both reading and write and reading to critique

Fourth, reading for general comprehension. General reading comprehension is actually more complex than commonly assumed. Reading for general comprehension, when accomplished by a skilled fluent reader, requires, very rapid and automatic processing of words, strong skills in informing general meaning represent main ideas, and efficient coordination of many processes under very limited time constrains reveal the complexities of reading for general comprehension. Grabe and Stoler (2002) Because of its demands for processing efficiency, reading for general understanding may, at times, even be more difficult to master than reading to learn, an ability that often is assumed to be more difficult extension of general comprehension abilities.

3.3 Types of Reading

According to Nuttal (2005) Reading has traditionally been divided into two types; intensive and extensive. In broad terms, intensive reading may be described as the practice of particular reading skills and the close linguistic study of text. On other hand, extensive reading can be defined as reading a large quantity of text, where reading confidence and reading fluency are prioritized.

According to Wallace (1992) reading can be divided into two main subs-headings namely; reading for pleasure, means that you choose what you want to read. On the other hand, reading for pleasure is done without other people but based on and individual reader's wished and taste. For example you choose to read a magazine or a book by your favorite author in your free

purpose is done by people want to read. It was because the readers have desire to do so and purpose to achieve.

Another view, types of reading Brown (2000) there three kinds of reading; reading aloud, In reading aloud, the students will get experience in producing the sound, which should be practice as many as possible. Reading aloud is divided into two kinds. They are unison is done with whole group. It is done to check pronunciation, intonation, and the student's ability to read and helps teacher to find out who among his students has difficulty in reading. While silent reading is reinforcing the readers to find out meaning of the words. The kind of reading leads the reader to better comprehension. This kind of reading leads the readers to the better comprehensions. This reading is skill to criticize what is written, to discuss written meaning and to draw inference and conciliation as well to tell new ideas on thesis of what is read. After that, reading fast, reading fast used to improve speed and comprehension in reading. These skills must appropriate with the main purpose of reading that is comprehension it depends on the kinds of the reading material.

3.4 Factors Affecting Achievement in Reading

There are several affective factors which are related to reading comprehension achievement. The first factors include self-concept, second factors autonomy, third factor environmental mastery, the fourt factors are

Other can regard self- concept as self-confidence, liking oneself, and feeling of appreciation. When students feel that is no competent because of other classroom. In such situation, reading achievement may stay at low level since the students cannot or will not concentrate on the task. Another factor that has influence in reading achievement is autonomy. The autonomy refers to the independence in thought and action. Autonomy refers to the teacher/ lecturer' guidance in helping student makes choices among meaningful alternative in texts and tasks to attain the knowledge and learning goals, Bauman (1988).

Environmental mastery is also one of the affective factors. When a student mastered his environmental, he is satisfied that he can affect what happens to him. He has some control over his own providence. A student who has limited environmental mastery will probably read less well than a student who appropriate mastery his environmental.

Another factor that has affective is perception of reality. A student perceives reality when sees himself accurately as an individual and as a person who is relating to is setting. The last factors is anxiety, the role of anxiety in learning to read remains conclusive because students' reaction very so much and since different level of anxiety produces different responses even in one students.Referring to all explanation above, it can be concluded that is not only the students' role to improve their reading comprehension

affective in learning process by using appropriate technique of learning reading comprehensions.

Another achievement of reading according to Anderson and Pearson (1984) contended that the readers comprehend a text by actively meaning internally from interacting with the materials that are read. Basically, comprehension involves a special kind of thinking process. Turner (1998) provides this description of thinking process on comprehensions. *"Successful comprehension involves the reader discovering the meaning needed to achieve the particular purposes set for, or by, him. It may be finding a particular piece of information, solving a problem through reading, working to understand an idea, or following a set of directions.*

3.5 Micro-skills of Reading

At the beginning levels of learning English, one of the difficulties students encounter in learning to read is making correspondence between spoken and written language, so they may need hints and explanation about certain English orthographic rules and peculiarities, base on the good away we can use Micro skills for reading comprehensions; Brown (2000). It can follow the micro- skills of reading;

- Using context to guess meaning of unfamiliar words.
- Understanding relation between parts of the text by recognizing indicators in discourse.
- Recognize grammatical word classes (noun, verb)

- Scanning text to locate specific information, it means that the beginner levels are able to find specific information of certain texts.

B. Review of Related Research Literature

The first previous research is taken from Panat da Sirriphanic's (2010) research about the improvement of reading comprehensions by using mind mapping as written on his article *"Using Mind Mapping Technique to Improve Reading Comprehension Ability of Thai EFL University students.* He conducted the research by using one group pre-post test experimental research design to 35 first year students at Songkhla Rajabhat University, Muang Songkhla where learning "English for communication and reading skills" as compulsory subjects. He found that mind mapping improved students' English reading comprehension as in the post test mean score of students were higher than the pretest mean score at the 0.05 level of significance. Moreover, most of students were satisfied with their own reading comprehensions ability and the last they enjoyed working in group and agreed that mind mapping technique was a useful technique that can be applied to non-English subjects. Finding and implications for further research are discusses. To support his research, there are fifteen students (five highly successful, five who did not show any improvement, and five unsuccessful)

The research above has more differences than the similarity what the researcher has researched. The differences are on the setting and the participants, method, and the analysis of the data.

The second related study is "The Effectiveness of Mind Map Technique in Learning Comprehension of Narrative Text (A Quasi-Experimental Study at The Second Year Students of SMPN 13 Kota Tangerang Selatan)" by Rachma (2012) the objective of this research is to find out the effectiveness of mind map technique in learning reading comprehension of narrative text. It is an experimental study which was conducted by using observation, interview, and test to gather the data. Later, the data was analyzed through t-test. The result shows that mind map is effective to use in teaching and learning process of narrative text. It can be seen from t-test value is higher than t-test table ($t_o > t_t = 6.43 > 2.68$).

The next research related to this research, Gardil and Jitendra (1999) examined the Effect Story Mapping/ Mind Mapping Procedure on students with Learning Disabilities. The result indicates that all six students in the study had improved reading comprehensions scores, with a mean increase of 56% from baseline to generalization. The mind mapping was used to engage the students recognize explicit and inferred information. In order to maintain the consistency of instructional, explicit texts were used. It is followed by reading the passages and completing the story mind mapping. It shows improvement in students reading comprehensions skills
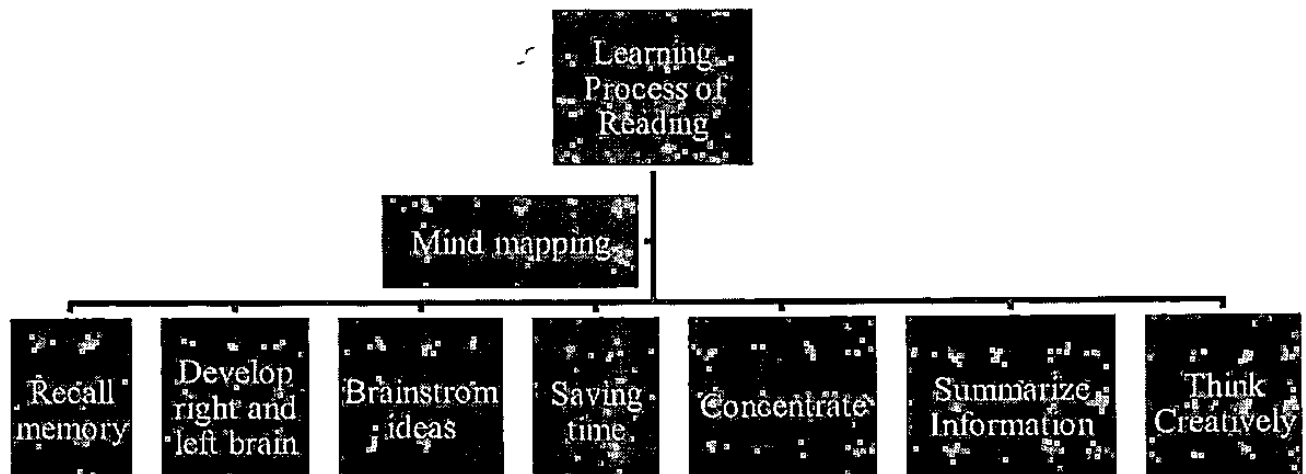
Another research conducted by Boelineau et.al (2004) on Mind Mapping and Story Mapping in Reading Comprehension. The learners were required to read and complete the web organizer. Some questions were asked by teacher during baseline, and it is followed by intervention session. In this session teacher gave instructions on completion of the mapping. During the final base, students continue to use mind mapping without the instructions from the teacher. This research showed that all the students performed better in the intervention phase and were able to continue to achieve high levels.

Meanwhile, L.K. Taylor et al (2002) used story mapping in comparing the efficacy of three conditions on literal and inferential reading comprehensions five elementary students in third through sixth grade. The three conditions were the use of story mapping, a self questioning strategy, and no intervention. The result indicated the students' score is higher in story mapping and self questioning strategy compared to no interventions conditions.

Furthermore, Onachukwu et.al (2007) examines the effect of story mind mapping procedure on the reading comprehensions skill of the eight grade students at the middle school. The researcher used multiple baseline design. There were two conditions in this research; baseline and intervention. The result indicated that the used story mapping procedure improved and

Buzan, (1994) claims that mind mapping is a kind technique to note taking method. Buzan also highlighted, mind mapping used both left and right cortical skill. It helps learner to organize and get ideas easily from the mind mapping. Mind mapping which is demonstrates by Buzan really enhances students thinking skills. Based on the research that has been conducted, it shows those mind mapping are being subject not only for English but also other subjects. From these related researches, the researchers prove that there are positive relations between mind mapping technique and reading comprehensions.

C. Conceptual Framework

Learning Process of Reading

Mind mapping

| Recall memory | Develop right and left brain | Brainstrom ideas | Saving time | Concentrate | Summarize Information | Think Creatively |

This section summarizes the linked theories which are combined from the literature review. The summary of those theories is intended to answer the question of the research as stated in the first chapter. The researcher relates the research matter to the theories.

Learning process in reading can be done using some techniques. One of them is by using mind mapping technique. According to (Halen, 2009) mind mapping is a popular brainstorming tool and learning technique of visually arranging ideas and their interconnections. The process in using mind mapping can be followed easily by its user even its new users. According to Buzan (2003) there are some benefits by using mind mapping technique. To begin with, mind mapping helps students recall their memory. Secondly, develop right and left brain, thirdly mind mapping brainstorm ideas, save time, concentrate, summarize information, and think creatively.

D. Example of Mind Mapping Technique in reading

This is a text a entitled A Viking Invasion. From this text, it will be drawn into a mind mapping.

A VIKING INVANSION

In about 800 AD the Vikings began their infamous raids, spreading terror!

Most raids were carried out by small parties of up to boats, each with 30 warriors on board.
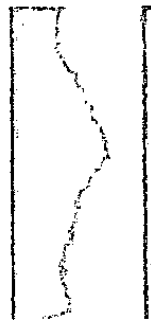
The speed of their boats meant they could make surprise attacks and then get away fast. The Vikings were known to be brave but brutal warriors. Wherever they went, they spread terror and panic.

One of the reasons people were so scared of the Vikings was because they had some of the best armour and weapon in Europe. They fought mainly with swords, spears, bow and axes. The ordinary warriors were tough leather tunics, while the wealthier ones wore armour made from chainmail. As well as this, all Vikings carried a large round shield, which was sometimes covered with leather. The most feared Viking warriors were the berserkers. To make them fiercer, these warriors may have been drugged so they would lose control of themselves. The word "berserk" is still used today to describe someone who has lost control.

At first, the Viking raided rich churches for loot. Later, they started attacking towns, looting and plundering, then burning most of the ground. They showed no mercy to the terrified women or children and a lot were murdered. Many women were tortured before they died. Some were taken prisoner and used or sold as slaves.
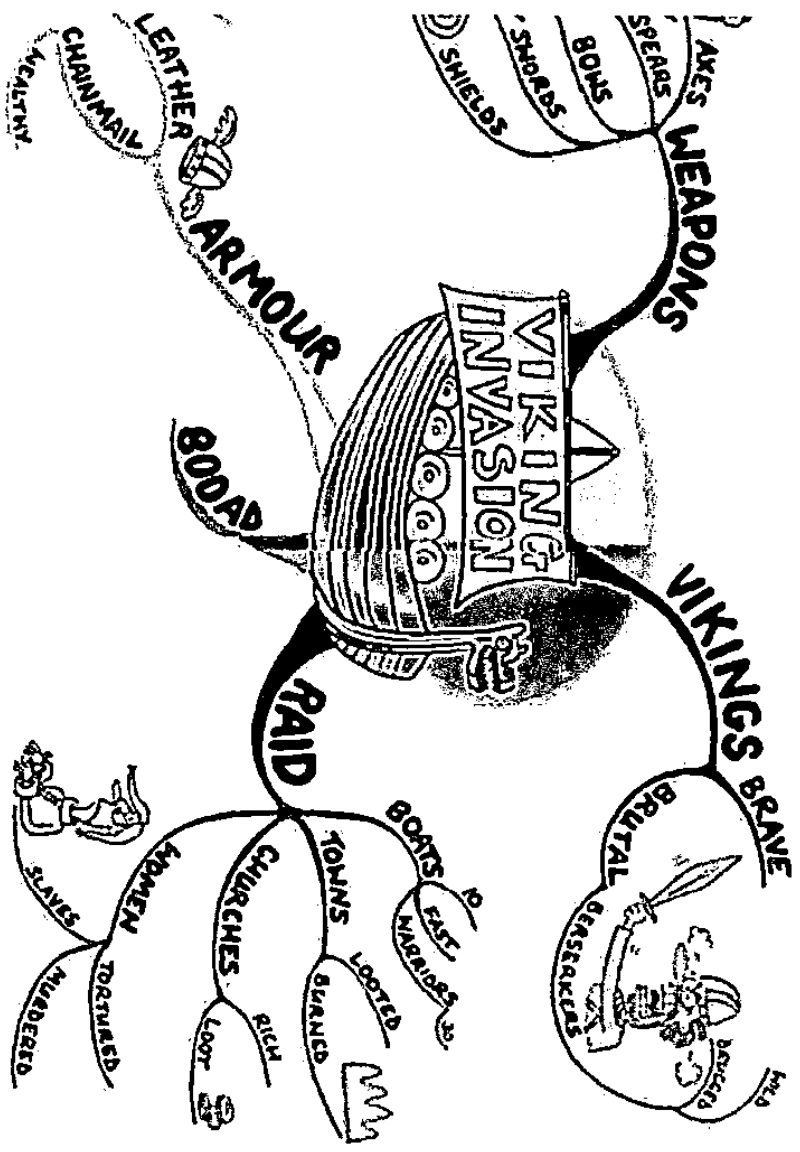

Figure 2.3 example of drawn mind mapping. Buzan (1994)