CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter discusses the review of literature related to the study. They are definition of *Preposition of Place and Time (on/in/at) , Brain Based on Learning, Whole Brain Method, and Rule of Whole Brain Method.*

A. Preposition of Place and Time (on/in/at)

According to Lindstromberg (1998) prepositions are traditionally classified into three categories: prepositions of place, of direction (or motion or movement) and of time. These prepositions pose a challenge to the learners as well as teachers of English because of the uniqueness of the problem involved. The learners face difficulties in the proper usage of prepositions in sentences, and therefore, land in trouble. Besides that, each of these prepositions has various meanings and usages that make the learning process equally difficult. In English, many prepositions are used to describe both spatial and temporal relationships (Clark, 1973; Bennett, 1975; Jackendoff, 1983). Both spatial and temporal functions of prepositions may pose challenges on the part of the second language learners (Kemmerer, 2005). Lindstromberg (2010) states that spatial preposition is a physical thing located in relation to another. The meaning of each preposition is spatial to describe these meanings; the trajectory (TR) and the landmark (LM) are defined. For example, The ball is *on* the table. Here, the preposition *on* functions as a preposition of place. The phrase, *the ball* refers to a thing whose location the speaker wants to indicate. It refers to the subject of the preposition. The phrase, *the table* refers to another thing, the Landmark of the preposition. The preposition locates the Subject (the ball) in relation to the Landmark (the table). The category of spatial prepositions is broadly divided into two groups: prepositions

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of static location and prepositions of direction (Bennett 1972; Jackendoff 1983; Zwarts 1997; Zwarts & Winter 2000; Kracht 2002; Zwarts 2005, 2006). When prepositions follow verbs, they become distinct whether they describe the location or direction. For example, the preposition *at* is used to represent a static location of an object in most cases, e.g. *John is waiting for his friend at the store*. There are cases in which *at* represents a direction or a destination, e.g. *The dog jumped at my face or we arrived at the park*. While the number of spatial prepositions is small, the number and variety of spatial relationships denoted by them are many. This provides an insight into the problems and challenges of the inherent ambiguity and vagueness in the usage and understanding of spatial prepositions (Chung, 2011). (Quirk et al., 1972, p. 377) says that the temporal uses of prepositions frequently suggest metaphorical extensions from the sphere of place. In fact, prepositions of time are very regular and easy to understand as compared to prepositions of place (Hill, 1989, p. 224).

The Use of Prepositions of Time and Place (at/on/in)

1. **Prepositions of Time: *at, on*, and *in***

   We use *at* with specific times and festival periods:

   • The train arrives **at** 12:15 p.m. / **at** a quarter past 12.

   • I'm flying home **at** Christmas / at Easter

   • + **at** night/**at** the weekend

   We use *on* with days and dates.

   • My brother is coming **on** Monday.

   • We're having a party **on** St. Joan.

   • Barça are playing Madrid **on** 29th November.

   We use *in* for parts of a day, months, seasons, or years.

   • She likes jogging **in** the morning/afternoon/evening. (not night)

• It's too cold/hot **in** winter/summer to run outside.

• He went to Italy **in** 1988.

• He's going to travel to France **in** August.

2. **Prepositions of Place:** *at, on*, **and** *in*

   We use *at* **for specific addresses.**

   • My parents live **at** 55 Passeig de Gracia.

   We use *on* **to designate names of streets, avenues, etc.**

   • Her house is **on** Passeig de Gracia.

   We use *in* **for the names towns, countries, continents.**

   • She lives **in** Barcelona.

   • Barcelona is **in** Catalonia.

   • Catalonia is **in** Europe.

   And we use in for buildings and closed spaces.

   • I work **in** a clothes shop/museum.

   • We had a picnic **in** the park/garden.

B. Brain Based on Learning

In 1983 Brain based learning was introduced where it established a relationship between how the brain functions and the educational practices. According to brain based learning, "In everything we do our brain is involved, let"s learn more about it and apply that knowledge" (Jensen, 2005).

Brain based learning is based on the theory that each brain is unique and that not all students learn in the same way and that everybody has the ability to learn (Duman, 2006; Tufekci & Demirel, 2009). Advocates of brain based learning have concluded that teaching techniques based on neuroscience of how the brain learns are effective in producing long

term learning (Duman, 2006; Tufekci & Demirel, 2009) and leads to successful academic achievement of the students (Duman, 2010; Duman, 2006; Inci, N & Erten, H. 2009; Tufekci & Demirel, 2009; Tufekci & Demirel, 2009).

Brain based learning is different from traditional method because it emphasizes on meaningful learning instead of memorization (Tufekci & Demirel, 2009). When learning becomes meaningful students develop an interest in the subject and can perform better (Inci, N & Erten, H. 2009; Tufekci & Demirel, 2009).

Brain based learning also helps to increase the recalling level of students (Inci, N & Erten, H. 2009). Educators need to understand of how the brain function in order to produce interesting and relevant teaching styles (Dufford, 2004). The key to academic and vocational success is in understanding about how our brain works since students have their own learning preferences (Porter, 2007). New research also suggest that our brain is designed to forget but if educators makes teaching and learning fun in such a way that it will entertain and build in a positive interest in the child they are bound to hold on to such information (Serrao, 2007). There are countless ways in which schools affect students" brain, for example stress, exercise, nutrition, and social conditions and also brain-based issues like attention, classroom attendance and memory. The brain is involved in everything we do at school and to ignore it would be irresponsible (Jensen, 2005). Hence in 1999 a new method of teaching based on brain research was established by college philosophy instructor Chris Biffle, in Southern California known as the Whole Brain Teaching method (Biffle, 2010).

C. Definition of Whole Brain Method

Whole Brain Method is based on the philosophy of teaching and learning that aims to maximize students" involvement by activating the whole brain in learning (Stearns, 2016) and is based on the principles of cooperative learning (Alford, 2014). Whole brain teaching

emphasize active learning where the whole brain is involved in learning. Chris Biffle collaborates with two of his former students, Jay Vanderfin and Chris Rekstad to develop strategies to improve learning in classroom and hence Whole Brain Teaching emerge as a grassroots educational reform movement after 15 years of classroom application where they combine effective classroom management and pedagogically sound approaches to student engagement that are effective with a wide range of student learning populations (Battle, 2010).

Whole Brain Method is also known as "Power teaching". It is considered as one of the world"s fastest growing education reform movement (Biffle, 2010). It is an approach designed towards increasing student"s involvement, and focusing on the way the brain is really designed to learn (Battle, 2010). Whole Brain Method focus in making learning fun, Biffle and his team believe that students learns best when educational activities are fun and not only that students learns but also such environment helps to decrease challenging behaviours inside the classroom (Biffle, 2013). Chris and his colleague found out that students are more engaged in class when they were emotionally involved in lessons that required students to see, to say, to hear and to move physically (Biffle, 2013). Whole Brain Method is a combination of direct instruction and collaborative learning (Whole Brain Method website). In whole brain teaching students are given the freedom to visualize, draw and act out their learning. It is a very flexible method which can be used for all age group from kindergarten students to college students. The philosophy of Whole Brain Method can be best understood in four words: engagement, involvement, whole brain and principles. In order to make students and engaged in learning, Whole Brain Method is surrounded by seven fun-filled techniques known as The Big Seven.

Whole Brain Method is a set of strategies to create an engaging classroom environment for students and enjoyable workday for teacher. Whole Brain Method is

educational tomfoolery based on brain in learning. Whole Brain Method is more like a large , lively game than a traditional elementary school classroom management system. According to the creator of Whole Brain Method Chris Biffle as "lesson that engage studentd in seeing, hearing, doing, speaking and feeling". Whole Brain Method is as students learn the most when they are having fun. This method is full of task-focused laughter. The classes are highly disciplined and tighly organized because students have more fun following the teacher's rules, than ignoring them.

The purpose of Whole Brain Method is to get students attention for what the teacher explain and to make them more focus to the material that given by the teacher. The more students are getting attention to the teacher instruction, the more information they can catch. To students attention, teacher can give simple greeting or command that students must answer and respond. For exaample, teacher can say "class" then students say "yes". Then the teacher will get the students attention.

D. Rules of Whole Brain Method

The philosophy of Whole Brain Method is surrounded by seven core techniques of teaching referred to as the Big Seven (Biffle, 2013). These seven step provides a collection of highly structured classroom, with a clearly laid out set of teaching strategies and routine classroom management that can be restructured, mixed, matched, and redesigned to fit individual teachers (Heeter & Efird, 2014). It also breaks learning down into small segments with direct instruction leading to cooperative learning and instant feedback.

Technique 1: Class-Yes.

Class-Yes Attention Getter- In order to gain students attention, the teacher begins class with one word by saying "class" any way the teacher likes, and the students are responsible to mimic the teachers" voice by responding

"Yes" (Battle, 2010; Tipton, 2016; Clark, 2016). In Whole Brain Method classroom the teacher uses the attention getter before she/ he begins the class (Tipton, 2016). The attention getter activates the prefrontal cortex which is the brain boss. Learning will not be effective if the prefrontal cortex is not engaged. Class yes is like a readiness switch that prepares students for the days lesson (Biffle, 2013).

Technique 2: Classroom Rules

Classroom Rules The Organizer- To begin with the informative part of the class lesson, the teacher utilized five classroom rules with the entire class that were rehearsed daily. Each rule corresponded to its own gesture and each rule is an intimate part of the classroom learning environment (Battle, 2010; Clark, 2016; Tipton 2016). The gestures activate the student"s motor cortex which is considered as the brain most powerful area for memory retention and also most importantly these gestures makes learning rules entertaining and fun to practice which again helps in activating the limbic system (Biffle, 2013). The five classroom rules are as follows:

a. Follow directions quickly! (Make your hand shoot forward like fish)

b. Raise your hand for permission to speak (raise your hand, bring down to head and make a talking motion)

c. Raise your hand for permission to leave your seat (raise hand, make a walking motion with fingers).

d. Make smart choices!- Kindness, Courage, Invincible Grit, Creativity (tap one finger to your temple as you say each word).

e. Keep your dear teacher happy (hold up each thumb and index finger out like an "L" framing your face; bob your head back and forth with each

word and smile really big!) (Tipton, 2016) ☐ The Diamond rule: Keep your eyes on the target, Please (pointing your eyes with your index finger)

Technique 3: Hands and Eyes

Hands and Eyes The Focusor- When important point is needed to addressed to the students, the teacher said, " Hands and eyes" and the students will respond "Hands and eyes". This technique helps the teacher to get maximum attention from the students (Clark, 2016). This can be used whenever the teacher wants the students to pay extra attention (Tipton, 2016). Hands and eyes gives the teacher an instant silence and instant focussing by eliminating all learning distractions (Biffle, 2013).

Technique 4: Teach- Okay

Teach- Okay Whole brain activator: Once the teacher gets the student attention, the teacher engaged in direct verbal instruction using gestures to represent the lesson concepts (Clark, 2016). Teach-Okay gives students the opportunity to gain confidence and increases students" engagement (Cannon, 2014). Research indicates that students learn best when they are involved in teaching to each other (Biffle, 2013). So while students are teaching to each other, at the same time the teacher can check that all students participate and give them instant feedback (Battle, 2010). During teach okay five areas of the brain are activated like the visual cortex when students look and follow the teacher gestures, motor cortex when the students are making the gestures, Broca"s area when the students start teaching to each other, Wernicke"s area when the students listen to the teacher"s teaching and the Limbic system when the students are showing their emotions to the lesson taught (Biffle, 2013).

Technique 5: Mirror: The class unifier

Mirror: The class unifier It is the simplest and most powerful technique. The teacher say "mirror" and the students will respond "mirror". Then the students will mimic both the speech and gestures of the teacher (Biffle, 2013; Tipton, 2016). As students imitate the teachers words and gestures, their motor cortex, the brain most reliable memory area, is automatically engaged (Biffle,2013). A number of research studies has also shown that accompanying words with gestures results in better memory (Jones, 2014) and also helps in better functioning of the brain where students are able to actively engaged in the learning activities (Davis, 2007).

Technique 6: Switch

Switch The involver: Students should be encouraged to discuss and share their experience of what they have learned with each other in class (Duman, 2010). Hence the next technique in WHOLE BRAIN METHOD is called Switch. In WHOLE BRAIN METHOD students teach their neighbours the instructor"s lesson every minute or so (Biffle, 2013). The class is being divided between those of the Brocaians (the speakers) and the Wernikites (the listeners). One student will teach and the other will listen, the moment the teacher says "Switch" students response "Okay" the students exchange their role. This technique improves the listening skills of the speakers and speaking skills to the listeners (Biffle, 2013).

Technique 7: The Scoreboard

The Scoreboard The Motivator: To support attention and motivation in the classroom the teacher created the scoreboard. The purpose of the scoreboard is not to transform the behaviour of the students, but to unify as

many students as possible behind the teacher‟s leadership (Biffle, 2013). The reward is the main motivator.

These are just a few technique of Whole Brain Method that provide teachers with a method that integrates both effective, fun, low stress classroom management and exciting method that produce enhanced retention and comprehension content (Battle, 2010). These seven techniques have been tested in classroom for over 10 years. The feedback received from hundreds of teachers participating at conference, feedback from Whole Brain Method website or via emails from across the country helps in refining these instructional strategies (Biffle, 2013).

E. Previews of Study

There are some preview studies of using Whole Brain Method strategy to build and improve some skills for the students, they are :

1. The preview study about Whole Brain Method which is used by Saiful Jabar in 2014, his title of his research is "Penerapan Metode Whole Brain Method Pada Pembelajaran Kosa kata Bahasa Jepang" (Kuasi Experimen terhadap Siswa Kelas XI SMAN 16 Bandung). His research about implementation Kosa kata Bahasa Jepang by using Whole Brain Method is effective. Because, mean students' score before using Whole Brain Method is 52,78. And after students taught by using Whole Brain Teachig Strategy, the students mean is 95,28.

2. The next preview study from Iin Dyah Lestari, student of Stain Kediri in 2010 and her title is "Effectiveness of Whole Brain Method to Improve Speaking Skill at the First Grade of SMAN Kras" and her research is success because the students' score of Post-

test is better than students' score of pre-test before taught by using Whole Breain Teaching Strategy.

3. The preview study from Akhmad Fauzul Albab and Sri Astutik about "Penerapan Pendekatan Accelerated Learning dengan Metode Whole Brain Method dalam Pembelajaran Fisika di SMP". And the result of research is success because students' score is higher after using Whole Brain Method than students who are taught using Whole Brain Method.

4. The differences my research with the other researcher is this research using Whole Brain Method to know The Effectiveness Of Whole Brain Method In Teaching Preposition Of Time And Place (On/In/At) at The Ninth Grade Students Of SMP Islam YBWPI Kediri. I choose Whole Brain Method because the most problem of students that make them difficult to understand about English lesson well because they have low of spirit and effort.