CHAPTER II

RIVIEW OF RELATED LITERATURE

This chapter, the writer contains the description of relevant theory concern the correlation between intelligence and the students' achievement. It is Iintelligence and Intelligence Quotien, they are: The meaning of Intelligence and IQ, Theories about Intelligence, The Characteristics of Intelligence Attitude, The Influence Factors of Intelligence, IQ's measuring instrument , The Influence Factors of Intelligence, IQ's measuring instrument, and English Learning achievement, they are: Definition of Learning and Learning Achievement, Previous Study.

A. Intelligence and Intelligence Quotien

1. The meaning of Intelligence and IQ

Ahmadi (2003:88) states, "Intelligence is demonstrable in ability of the individual to make good responses from the stand point of truth or fact". So the individual is intelligence if the response that given by according to stimulus which be accepted because intelligence is to organize, to relate, to bind, together. Meanwhile Lewis Hedison said that intelligence is the ability to carry on abstract thinking.

Acording to suharman (2005:345) stated that Intelligence is one of mental ability, think, or intellectual human. Some people think that person was have high

frequent intelligence at conceive of person which smart or ggenius. Haven't available unity has say definition about Intelligence, but researcher needs to interposed the definition about Intelligence.

Sterm said Intelligence is energy to conform by new situation with use think and way to the aim (Djaali, 2011:63-64). Therefore, if someone was having good score in IQ he was conforming and enjoy with new situation by using his brain.

Bischof, an American psychology also interposes more about definition of intelligence with operational character and functional, intelligence is ability to solve all type of problem like opinion from Heidenrich (Dalyono, 2007:184). He said that According to Heidenrich, intelegensi that concern ability for learned and wields what her/his studied deep effort adaptation to situations that insufficiently been known, or in trouble-shooting. So, if people have a high score or good IQ he was essay to look full in the face of situation.

According to Baharuddin (2007:126) intelligence is soul readiness to do for confront and cope with situations or new problem consciously, by thinks quickly and correctly. So, if someone was have good IQ more and more, he can conform his situation correct and quickly more and more to.

From some definitions of Intelligence, intelligence is ability or individual readiness to do weather the storm and adaptable in new situations and new handicaps by use of tool thinks by the aim that is thinks quickly and correctly.

According to Presetyono (2010:6) stated that Meanwhile IQ or level of *intelligence quotient* is acquired score of one tool of intelligence test. In other

word, IQ is acquired score of essays intelligence, so the essays of intelligence more recognized with IQ.

Although researcher was have defined intelligence in a general way, there are different opinions of the specific knowledge and abilities in which build up the concept of intelligence. Some concepts of intelligence have developed to identify general and specific intelligence. Moreover, to explain the variability in performance described below.

2.   Theories about Intelligence

a.   Theory Uni-Factor

Theoretically, intelligence constitutes common capacity or common ability. That common capacity constitutes studying effect, and use with symbol 'G' (Dalyono, 2007:185). The meaning of this theory, is ways of working Intelligence have the general quality so each someone action to conform against that environmentally and solving a period it have the general quality too.

b.   Theory Two-Factors

According to Suryabrata (1998:127) stated that two factors theory sometimes called spearman theory because Charles Spearman interposed this theory on year 1904. By use of factor analysis method, Spearman interposes that intelligence consisting of two factors. Two factor is common mental factor or *general factor* that symbol with 'G' and special factor or *special factor* that symbol with 'S'. Factor G represent common mental force that functioning deep in each individual mental behavior, meanwhile factors S determines action mental to cope with problems.

This theory explain that intelligence is the ability of general think. Intelligence in the term is not remembering activity, learning by books, mastering academic skill, or smart people who follow the test, but intelligence is a combination of general ability that included the ability of think and conceptual think planning, problem solving, and efficient learning.

c. Theory Burt

According to Nurkancana and Sunartana (1986:178) said that This Burt's theory nearly approaches theory *two-factor* theory interposed by spearman. According to Burt each behavior enabled by three factors, which is g factors, c factor, and S.'s factor. So, the opinion of this theory it besides common mental factor and special factor, there is factor again which is group or *cluster factor* with symbol C. Factor c is functioning factor on to amount to behavior, where this factor is wider of s factor and more narrow of G factor.

d. Theory Primary Mental Abilities

Dalyono (2007:187) stated that like *interposed* Thurstone *Primary Abilities Mental Theory* that these words, according to explain that intelligence constitutes manifestation of sevenths primary ability, which is: Numerical ability, Verbal comprehension, Reasoning, Conceptual speed, Word fluency, Associative memory, and Spatial visualization

From each seventh primary ability that independent and make the function of think that variably or different from the other.

e. Theory Multi-Factor

Theoretically it intelligence consisting of neural's relationship form between stimulus and response. In this special relationship that trained on behavior (Dalyono, 2007:186). While someone get behavior or doing something action because formed connections in nervous system consequent study or training. Therefore, theoretically intelligence is total connection with recent and potential connection in nerve system.

f. Theory Sampling

This theory first time was purpose by Thomson on year 1916 one theory to explain about intelligence. That theory called with *sampling* theory that perfected on year 1935 and 1948. Theoretically of intelligence constitutes various sample of ability (Dalyono, 2007:188). The operating Intelligence is restrictively to sample of variety ability or the real world experience. Explain oneself, in this world available experience area that uncontrollable by think / human mental ability as a whole. Maybe each experience area is just controllable a portion or maybe just one part of experience area.

3. The Characteristics of Intelligence Attitude

Makmur (2003:54) explained that the meaning of intelligence behavioral has correlation with intelligence concept. There is not substance (an object) or force that lays in part of someone body but individual those have points out statement *"intellect put to use"*. Intelligence just gets to detect by identifies indicators that realization in standard intelligence behavior.

Witherington points out indicators of that intelligence behavior for example:

a. *Facility in the use of the numbers*

b. *Language efficiency*

c. *Speed of perception*

d. *Facility in memorizing*

e. *Facility in comprehending relationships*

f. *Imagination*

According to Purwanto (2011:55) stated that there is even an activity can be said intelligence if qualify for example:

a. Matter in hand, there are many and a minimum is a new problem for the person involved

b. Intelligence behavior its matching with the purpose and economical

c. Matter in hand must be contain a difficult step for the person involved

d. The information of trouble-shooter must to accept by society;

e. In intelligence behavior often used an abstract of energy;

f. Intelligence behavior that have character of speed

g. Needing attention concentration and avoids that troubles feel the way of creative problem solving that man must fight

4. The Influence Factors of Intelligence

There are several influences factors that intelligence or intelligence of someone, so there is differences intelligence among one person with another one.

In addition, all of the factors have correlation with one another, some of factor, which is:

a.   *Connate,* connate is characters and criterion already be taken in since are borne.

b.   *Maturity,* maturity is can do or not in each physical body organ and spiritual to carry on each function. In addition, these maturities go together with age.

c.   *Formation, formation* is all situation or outside situation someone self which get influence with intelligence

d.   *Interest and special connate,* interest is a support turned on feat to a purpose. What interesting for someone will support someone to be mug up and better.

e.   *Freedom* , freedom is while someone can be and get to choose something as problem and solution method to the needs

According to Purwanto (2011:156) said that Intelligence is total factor. Call total factor because all of the factors interrelated each other so someone have intelligent or not, we cannot a given by sees one of the factor earlier.

5.   IQ's measuring instrument

The level of *intelligence quotient* or IQ can be someone measure gotten by use test is call intelligence test. That first time person finds to measure IQ is Alferd Binet expert psychology of France and gets a helping hand by Simon. Therefore, these tests call Binet – Simon test though it given being by name 'I. *Chelle matrique de' intelligence* or intelligence measurement scale.

According to Dalyono (2007:191) stated that the test that published on year1908 continually developed and improved by Binet and Simon. Then that

repair result published on year 1911, after few months Binet's dies. Then Binet – Simon test well known where and there are many used and developed according to requirement and region self. Therefore, another Intelligence test was amending too. Nurkancana and Sunartana (1986:184) severally among those as follows:

a. Wechsler test

b. Army alpha and Army beta test

c. Draw a people test

d. Labirin test

e. Progressive matrices test

Many test already be developed there is individual's ability test and group ability test. Binet test and Wechsler test is individual's ability test, the means given to singles individual by examiner those are special through paced. The other way, group ability test can give unto a large number person by an examiner and usually deep on written shaped.

B. English Learning Achievement

1. Definition of Learning and Learning Achievement

This is one of the most important issues in teaching, as to be effective we need to try to teach in a way that reinforces how the people naturally learn.

According to Mason and Au (1990: 17) learning is an external, social process which takes place during the instructions children have with adults. Based on Tomlinson (1998: 4) said that learning is normally considered to be conscious process which consists of the committing to memory of information relevant to

what is being learned. Such as direct learning for example, spelling rules, conventions greeting and vocabulary items can be useful to the language learner. The writer think that studying is an activity, which have made by aware to amount to gets image of material be studied. Djamarah (1994:19) said that studying also was being defined Studying is a process was done by someone to get a new changing behaviors as a whole, as a result own experience in interaction with their environment.

The first major theory of learning called behaviorism that developed in the 1920s and 1930s by psychologist such as Skinner and Pavlov. This theory emphasizes change in behavior as the main outcome of the learning process. Behavioral theorists concentrate on directly observable phenomena using a scientific method borrowed from the nature sciences. Learning according to behaviorist, is something people do in response to external stimuli. The basic mechanism through which this happens is conditioning.

Atmoko (2013:5) explained that learning achievement is one of important indicator that is determining success an education institute. Other function from learning Achievements is absorbing power indicator and student intelligence. Learning achievement can used to arrange and establishing a decision or good wisdom that concerns student, education and institution that brings off to program education. Meanwhile studying is try to get knowledge, exercise, changing behavior or because of comment experience. From two meaning gets to be taken by conclusion studies achievement is yielding already be reached after someone tries to get knowledge and exercise by learned activity.

From some of the meaning we gets a meaning that achievement is measure of the quality and or the quantity of the success one has in the mastery of knowledge, skills, or understandings. References to academic achievement, for example, usually involve performance in such area as reading, mathematics, science, or social studies.

2. Previous Study

Before doing the research, the researcher reviewed the previous research done by Kurniawan (2010). The titled "The Correlation between Student's English Test Score and their IQ Score at second grade of SMA Negeri V Depok" He used two classes as the object contains of 80 students. They are from two classes from nine classes of second year of SMA Negeri V Depok. This study is categorized as quantitative research and use correlation design. He uses a produc moment to calculate the data of students' English achievement and their IQ score. The data in this research is taken from documentation and observation.

Another study was conducted by Habibollah and his friends (2010) the titled "intelligence and academic achievement an investigation of gender differences". He used 153 participant, there 105 is male and 48 female is completed creativity test. Cumulative grade point average (CGPA) was used to select the participants. Intelligence was measured using the Catell Culture fair Intelligence Test (CFIT-3a & b).

The differences of the research by Kurniawan were taking the achievement score was copying by data in their school but in this thesis, the writer was taking the Achievement score by test and then the writer take the score in first grade.

Then the journal focused in gender but in this thesis was focus in achievement and the technique to take sample in journal was used cumulative grade point average but this study used purposive sampling.