**CHAPTER II**

**REVIEW OF RELATE LITERATURE**

In this chapter deal with some literature that is related to the study. The review of related literature consists of: teaching of vocabulary, importance of learning vocabulary, characteristic of young learner, definition if inquiry, use inquiry technique in teaching vocabulary, advantages and disadvantages of inquiry technique.

1. **Teaching Vocabulary**

Teaching is a business teacher to guide, direct or organize learning. Teaching is a series of activities delivery of learning materials to each student so that he can accept , rspond, appreciate, control and develop it. Richard (2002:255) says in the past, vocabulary teaching and learning were often give little priority in second language programs, but resently there has been a renewed interest in nature of vocabulary and its role in learning and teaching. Traditionally, vocabulary learningwas often left to look after itself and recived only incidental attention in many textbook and language programs. Thus, although the course curricullum was often quite specific about aspect of teaching such as grammar, reading, speaking, little specification was given to the role of vocabulary. The status of vocabulary now seems to be changing.

Vocabulary is a core component of language proficiency and provides much of the basis for how well learner speak, listen, read, and write. Without an extensive vocabulary, learner often achieve less than their potential and may be discouraged from making use of language learning opportunities around them such as listening to the radio, using the language in different context, reading, and watching television. Richard(2002:256) hunt and beglar did or listening discuss three approaches to vocabulary teaching and learning:

1. Incidental learning is vocabulary as by product of doing other things such as extensive reading or listening.
2. Explicit intruction deeppens on identifying specific vocabulary acquisition target for young learner.
3. Independent strategy development involves practicing guessing from context and training learners to use dictionary.

In general, emphasizing explicit intruction is probably best for beginning and intermediate students who have limitate vocabularies. On the other hand, extensive reading and listening might receive more attention for more proficient intermediate and advantages. Richard (2002:261) State at the beginner levels, teachers frequently use explain and practice procedures. For example, use media or certain technique is easy. A number of different techniques and strategies were provided that can be used with words that are selected by the teachers as well student selected items.

These techniques and strategies can be used to enrich your oral and written English language program. Caroline (2006:134) State that when a teacher teachers vocabulary to this students, he should know their characteristics so he can choose suitable techniques or methods which make the student enjoy and active in learning vocabulary in the classroom. It will be increase particularly their vocabulary mastery and their English ability in general.

Harmer (1991:156), explains that first to realize about vocabulary items is that they frequently have more than one meaning. Sometimes words have meanings in relation to other words. Thus students need to know the meaning of vegetable as a word to describe any one of a number of other things (e.g., spinach, potatoes, carrot etc). vegetable has general meaning whereas’ carrot’ is more specific. Word have opposite (antonyms): for intance, the meaning goes, then student need to know about meaning in context and they need to know about sense relation.

According to Kindsvatters (1996), vocabulary is word know, learner, used. It names means that vocabulary is important to know, learn and use. Withouth having a good vocabulary, they can not make meaningful sentences in communication. A person’s vocabulary is the set of word which he or she is familiiar with in a language. A vocabulary usely grows and involves with age, and serves as useful and fundamental tool for communication acquiring knowledge. Vocabulary is needed for expressing meaning used in the receptive

Language skill (listening and reading) and the productive language skill (speaking, and writing) in this case, harmer explains that “if language structures make up the skeleton of the language, then it is vocabulary that provides the vital organs flesh”.

Learning English at junior high school is to make students attitude fun in learning English. So our problems as an English teacher of junior high school in how to give vocabulary to our student as much as posible in happy condition. In other word, as an English teacher, our job is not finish if student only has met new vocabulary, but we mush have them to practice to learn, read and use the vocabulary in their reality.

Teaching vocabularies not just conveying the meaning to the students and asking them to learn those words by hearts. Teachers should believe that the words are worth explaining and learning, and then it is imortant that they should do this efficienly. They shoulduse different technique and activities in teaching English vocabulary to motivate the learners, to enrich their vocabulary, and to enable them to speak English properly.

Celce Muria (2003:73), there are many techniques and activities that the teachers can amploy and use in teaching vocabulary, such as presentation, inquiry techniques and practice. We will look at the conveying meaning, checking understanding, consolidation, which Celse murcia recommends every teacher to follow when using the above mentioned techniques. There are some stages of teach vocabulary :

In stage\_ (conveying meaning) the items are presented to the students. In stage\_ (checking for comprehension) exercise test how far the students havegrasped of the items. In stage\_(consolidation), students deepen their understanding of the items though use and creative problem-solving activities. The teaching of vocabulary was neglected in language classroom, despite the importance that learners attach to the task of building and maintaining an adequate vocabulary. Nunan( 1991) says that, teaching English should integrate the four language skills can not be apart from the language components, they are pronounciation, vocabulary and structure which influence the mastery of the four language skills.

1. Definition of word

According to vigotsky, a word is a microcosm of human conscriousness. All language have words. Language emerges first as word, both historically and in terms of the way each of us learned out first and any subsequent languages. The coining of new words never stops. Not does the acquisition of words. Take, fore example, this description of a wine, where familiar words. Take, fore example, this description of wine, where familiar words are being use and adapted to express very specialized meanings. (Carlos 2003:2) states that learning the vocabulary of second language present the learner with following challenges:

1. Making the correct connection, when understanding the second language between the form and the meaning of words (e.g mouth feel, grippy), including discriminating the meanings of closely related words 9 e.g hush and plush),
2. When producing language, using the correct form of a word for the meaning intended (I.e nose not noise) to meet challenges the learner needs to:
3. Acquire a critical mass of use in both inderstanding and producing language.
4. Remember words overtime, and be able to recall them readily.
5. Develop strategies for coping with gaps in word knowledge, including coping with unknown words, or unfamiliar uses of known words.

We can know talk about words as belonging to families. A word family comprises the base word plus its inflexion and its most common derivatives. To take another example, the base forms understand includes the following members in its family: understands, understanding, understood, and understandable, misunderstand, and misunderstood. Research suggests that the mind groups thesedifferent forms of the same word together. Therefore, rather than talk about the number of word families. Many classifying of word are: homonym, polysemy, synonyms, antonym, hyponym etc.

1. **Importance of learning Vocabulary**

Importance of vocabulary is without grammar very little can be conveyed, without vocabulary nothing can be conveyed. Tharton (1975:3)say that where if you spend most of your time studying grammar, your English was not improved very much. But you will see most improvement if you learn more words and expressions. You can see very little with grammar but you can say almost anything with words. Marten, Manser (1996:23) says to achieve vocabulary, the learner needs not only to learn a lot of word, but to remember them. In fact, learning is remembering. Unlike the learning of grammar, which is essentially a rule based system, vocabulary knowledge is largely a question of accumulating individual items.

Linse (2006: 122) states development is an important aspect of language development and research that has been conducted in recent year is very exiting. A variaty of studies have proven that appropiate vocabulary instruction benefit language students, especially school age learner. Hedge, Tricia(2003: 27), it is important to use both formal and informal vocabulary instruction that engages student’s cognitive skill and give opportunities for the learner to actually use the words. Having diferent learning opportunities will help improve learners’ overall language ability by improving their vocabulary. In other words, the goals is for student to become word-savvy, to develop and understanding of how words within the kontet of reading and writing, and to become excited about words as say they learn to manipulate them in playful ways. Brownd, (2000:4) state there four of concept vocabulary learning are:

1. Joining or bringing together, comparing, classifying, and generalizing are example of joining. When you ask student to explaint how words are related of have them short though word cards to group words together, you are involving them in joining.
2. Exluding, student must discriminate among or rejectitems because they don’t belong within conceptual category.
3. Selecting, students simply learn to make choices and to explain why based on why they experience, know, or understand.
4. Implying, that implying such a complex cognitive activity that it actually a combination of joining, excluding, and selecting.

According to Nunan, (2003:135) learner see vocabulary as being a very important part of language learning, so the best way to avoid difficulties in learning vocabulary is a teacher know set of guiding principles that can be applied in variety teaching and learning situation. They are:

1. Focus on the most useful vocabulary first, the most useful vocabulary that every English language learner needs whether they use the language for listening, speaking, reading, writing, or whether they use the language in formal and informal situations, is the most frequent 1000 word families of English.
2. Focus on the vocabulary in the most appropiate way. The first principle looked at what words to teach and learn. We will look at the fours most important vocabulary learning strategies of using word cards, and using dictionaries. We will see that the teachers need to clearly distinguish the way they treat high frequency words from the way they treat low frequency.

Learning how to use a dictionary well is another important strategy in which many learners require training and practice. There are some ways to help learners with low frequency:

1. Direcly teaching high frequency words
2. Getting learners to read and listen to graders containing these words
3. Getting learners to study the words and do exercises based on them
4. Getting learner to speak and write using the words.
5. Give attention to high frequency word across the four stands of learning high frequency vocabulary needs to occur in all for stands of meaning it should get deliberate attention though teaching and study and should be met used in communicating message in listening, speaking, reading and writing.
6. Encourange learners to reflect on take responsibility for learning, unless learnes take control, learning will not be as effective for them. Teachers can help them do this in the following ways:
7. Inform the learners of the different types of vocabulary
8. Train the learners in the range of learning option avalable for them
9. Provide genuine opportunities for choosing what to learn and how to learn
10. Provide encouragement and opportunity for learners to reflect on their learning and evaluate it.

Vacca(1999:314) says learning vocabulary beomes an activity in itself a separate one rather one an integral part of ting academic content. Content area vocabulary must be taught well enough to remove potential barrient to students’ understanding of texts as well as to promote a long them acquisition of the language of a content area. The organizing principle underscore the main premise of the chapter, theaching word well means giving student multiple opportunities to learn how word are conceptually related to one another in the material they are studying.

1. **Vocabulary Mastery**

Vocabulary mastery is one component to master English as a foreign language in elementary, intermediate, and advanced levels. In learning the for language skills (listening, speaking, reading, and writing), vocabulary is one basic component to be mastered. It is reasonable, remembering that the four language skills need knowledge of words because they will get nothing without vocabulary. The larger the student master vocabulary the better they perform their language. By having to limited vocabualry, the students will find diffuclties in mastering reading and other skills.

Vocabulary mastery means the studens having ability in understanding and using vocabulary, vocabulary mastery means the students having ability in understanding and using vocabulary. Vocabulary mastery itself deads with words and meaning. The student are not only hoped to select with what words are suitable to be taught to the students will learn more easily.

According to Thornbury:(2004:27), other factiors that make some words more difficult that other:

1. Pronunciation: Research shows that word that the are difficult to pronounce are more difficult to learn.
2. Spelling: Sound-spelling mismatches are likely to be the cause of errors, either of pronunciation or of spelling, and can contribute to a word’s difficulty.
3. Length and complexity : long words seem to be no more difficult to learn than short ones.
4. Grammar: also problematic is the grammar associated with the word, especialy if this differs from that its L1 equivalent.
5. Meaning: When to ward overlap in meaning, learners are likely to confuse them
6. Range, connotation and idiomaticity: Words that can be used in a wide range of context will generally be perceived as easier than their synonyms with a narrower range.

Tharton (1975: 144) state vocabulary cannot be taught. It can be presented, explained, include in all kinds of activities, and experienced in all manner of associations but, ultimately it is learned by the individual. As language teachers, we must arouse interst and a certain excitement in personal development in this area. We can help our students by giving them ideas on how to learn, but each will finally learn a very personal selection of items, organized into relationship in an individual way.

Learner training- i.e training learners to learn effectively- has been informed by research into the strategies that successful learners use. Studies have shown that good learners do the following things:

1. They pay attention to form- wich, in vocabulary terms, means paying attention to the constituents of word, to their pronountation and to the way they are stressed.
2. They pay attention to meaning- wich means they pay attention to the way word are similar are diffirent in meaning, to the connotations of words, to their style and to their associations.
3. They are good guessers- wich means they work out the meanings of unfamiliar word form their from contextual clues
4. They take risks and are not afraid of making mistakes- which means they make the most of limited resources, and they adopt strategies to cope when the right words simply don’t come forth.
5. They know how to organize their own learning- by, for example, keeping a systematic record of new words, usingdictionaries and other study aids resourcefully, using memorizing techniques, putting time inside for the ‘spade work’ in language learning, such as reppetitive practice.

Richard and Rodger (1986) state that if we master vocabulary, the language skill more easier are studied. For example; if the student have good capacity in mastering vocabulary, their listening, speaking, reading, and writing will be better. In vice verse if their voccabulary mastery is had, their for language skills will be worse too. According to Richard and Rodger (1986) vocabulary is very powerful part of language, approaches and method in language teaching.

1. **Kinds of Vocabulary**

There are two kinds of vocabulary they are active vocabulary and passive vocabulary.

1. Active Vocabulary

The students use their vocabulary when they try to express their ideas, in active class and teacher can support them by presenting the dialogue demonstrated by two or more students or by the teacher and the students. Futhermore, the teacher can ask the students to write a short storyabout their daily activity or about their family. According to Tharton (1975) : 147) active vocabulary is the words that we usually use in speaking and writing everyday.

1. Passive Vocabulary

According to Tharton (1975 : 144) pasive vocabulary is the words that we organize and understand when listening or reading materials. The students usually find some difficulties in understanding the meaning of the new words in listening or reading materials. The teacher can help thir students to find the meaning of the new words by explaining the meaning using, so the students can increase their vocabulary by themselves

Richard (2002: 316) states there types of reading vocabulary in textbooks :

1. General Vocabulary

It consist of everyday words with widely acknowledge in common meanings usage.

1. Special Vocabulary

It is made up of words from everyday vocabulary that take on specialized meaning particular content area.

1. Technical Vocabulary

It consist of words that are used only in particular area.

1. Receptive Versus productive Vocabulary

Celce-Muricia et al (2000:73) states that First, the notion of receptive versus productive vocabulary is very important. Users of many language, including both native and nonnative speakers, have much more receptive than productive vocabulary. So that way we as a teacher should give stronger motivation to our students and to all of learners to be mastery both of productive andreceptive vocabularies, because it very important for their future. Suyanto (2010:15) says that the learner’s characteristics or for children/adult insist the teachers to give different treatment in the process of teaching learning. The children in the process of learning can be insructed to pay attention on the words presented. They still have more or long time to learn the words. The instruction given by the teachers to the children in learning vocabulary above must be different from that of the adult. In learning words, the adult must be forced to memorize the words. In other words. The main reason is that they do not have more or longtime to learn, so they must not be directed to pay attention on the words presented.

1. **Understanding Methods of Inquiry**

Method of inquiry is a series of learning activities that emphasize the process of thinking critically and analytically to see kand find their own answer to a problem that isquestionable. The thought process it self is usually done through a question and answer between the teacher and student susilo herawati,( 2008:193). Inquiry it self is derived from the English language, which means that the question, examination, orinvestigation. Strategies of inquiry mean saseries of learning activities that involve the whole maximally students' ability to see kandinvestigate systematically, critically, logically, analytically, so that they can formulate their own discovery confidently.

According to Kunandar(2007) a method of inquiry is teaching methods that seek to in still the basics of scientific thinking the students, so that students in the learning process is much more to learn them selves, develop creativity in problem solving". Students actually placed as the study subjects. The role of the teacherin learning the method of inquiry is as amentor and facilitator. The task ofthe teacheris to choosea problemthat needs to becommunicated tothe classto solve.Butit is also possiblethat theproblemwill besolvedchosenbythe student. The nexttask ofthe teacheris to providea learning resourcefor studentsin order to solvethe problem. Guidanceandsupervision ofa teacheris still needed, but theinterventionof thestudentsinproblem-solvingactivitiesshould be reduced. InquiryMethodConceptMethod of inquiry departs from the assumption that sinceman is bornintothe world, humanshave theurge to find their own knowledge. Curiosity about thenatural circumstancessurroundingtheman's naturesincehewas bornintothe world, sincehumanshavelittledesire to knowall thingsthroughthe sensesof taste, hearing, vision, andother senses (Kunandar, 2007:193).

1. **Characteristic Method Inquiry**

First, the inquiry stressed to the maximum activity of the student to see kand find, it means learning strategies. Secondly, the whole activity of the studentis directedtoseekandfind theanswers themselvesofsomethingthatis questionable. Third, the purposeofthe use ofthe methodof inquiryisto develop the abilityto think systematically, logically, criticallyordevelopintellectualabilitiesaspartof amental process (Kunandar, 2007:194). Principles ofInquiry Method

1. Oriented to the developmentof intellectual, is the abilityto think, besidesalsoresult orientedlearningprocess orientedlearning.
2. The principle ofinteraction, students interaction between students and student interaction with teachers, and evenstudents' interactionwith the environment.
3. The princip leasked, isthe role of the teacher as questioner. Therefore, the ability of students to answer each question basicallyis already apartof the thought process.
4. The principle of learning to think, learning is notonlyconsidering the number of facts, but learning is the process of thinking(learning how to think) thatthe process of brain development, (Kunandar, (2007:197).
5. **Definition of Inquiry Technique**

Roestiyah (1990:90) states that inquiry approach is a technique or a way is used teachers to teach the class. As for its implementation: the teacher divides the task of researching a problem to the class. Students are divided into several groups and every group get certain task that must be done. Then so they learn, research or discuss its role in the group.

This technique aims to enable students exciting by the task and actively seek their own solutions. Look for own resources and they learn together in groups, hopefully that students are able to express ideas and formulate conclutions. Hoped they can argue, refute, maintaining their opinion, it is contain a haigher mental process level. Such as formulate problems, plan experiments, collect data, make conclusion. A method of inquiry that lead students to realize what has beeb obtained during the study. Inquiry puts learners as subjects of active learning Mulyasa,(2008:234). Although this method is centered on the activities of learners, but teachers need to give explanations, asking questions, make comments, and suggestions to students. Teachers are obliged to facilitate learning though the creation a conductive climate, using the media facilities and learning material are varied.

Inquiry is basically a way of realizing what had happened. Because of that inquiry requires students to think. This method involves them in intellectual activities. This method requires students to process experiences into a meaningful learning in real life. Thus, through this method students are taught to be productive, analytical, and critical. The steps in the process of inquiry is to awaken curiosity about something, estimate answer, and draw conclusions and make a valid decision to answer the problem that is supported by the evidence. Next is the conclusion to analyze the new data (Mulyasa, 2008:235).Inquiry means a question, or inspection, investigation K.E (suyanto,(2007:135). Haury in his article, teachingscience though Inquiry (in Syafaruddin 2008) cite the dewfinition provided by the alfed Novak: inquiry is the behavior invlved in the human effort to rationally explain the phenomena that provoke curiosity. In other words, inquiry relates to activity and active skills which focus on the quest of knowledge or andexsaodrng to satisfy curiosity.

Suyanto (2007:3) stales that the ducovexy is pat of Ac inquiry, or inquiry is an expansion process ttait is used more in-depth (fiscovery. Inquiry as a general process by man to find or understand information suyaanto (2007:3).

staled strategy of inquiry means a series of learmng activities that involve tfae most of the students' ability to search and investigate in a systematic, critical, logical, analytical, so that they can formulate its own findings with confidence

Inquiry is a process that students can learn and experience as they solve problems through reflective In other word, inquiry is an extremely versatile instructional method because it can be used to teach content, problem solving, critical thinking skills, and decision making Many consider inquiry to be synonymous with discovery, inductive teaching, reflective teaching, and problem solving.

The National science note this dichotomy (Alancolburn 2000: 42),

scientific inquiry refers to the diverse ways in which scientists study

the natural world and propose explanations based on the evidence derived from their work. Inquiry also refers to the activities of students in which they develop knowledge and understanding of scientific ideas, as well as an understanding of how scientists study the natural world.

G. Teaching Vocabulary by Using Inquiry Technique

There are seven main components of learning that underlie the application of learning CTL/contextual in class, one of inquiry. Finding a core part of the contextual-based learning activities which argues that the knowledge and skills in getting students not merely recall the facts, but the finding itself.

Steps of inquiry technique based on Dewey's model of reflective thinking an adaptations presented here:

1. Identify and clarify the problem
2. Form hypotheses
3. Collect data
4. Analyze and interpret the data to test hypotheses
5. Draw conclusion.

this approach is the view of the learner as responsible for discovering, constructing, and creating something new, and the view of the teacher

as a resource and facilitator Active learning implies the developmentof a community of learners and supports opportunities for authentic communication rather than rote language drills. (Fern, Anstrom & Silcox, 1995, pp. 1-2).p

Method of inquiiy that requires the active involvement of students proved to increase learning achievements and attitudes of children towards Mathematics and Science Haury in Mulyasa Haury (2008) in his paper states that the method of inquiry, among others, fostering scientific literacy and understanding of scientific processes, vocabulary knowledge and understanding of concepts, critical thinking, and be positive. It may be mentioned that the method of inquiry not only enhance students' understanding of concepts in mathematics, but also form a scholarly attitude in students.

Furthermore, the method of inquiry is a method of learning that seeks to instill the basics of scientific thinking on self-esteem, so that in this learning process more student self-study, develop creativity in solving problems (Syafarudin 2005:315). Students are really positioned as a subject of study. The role of teachers in learning by inquiry method is as mentors and facilitators. The task of teachers is to choose the issues that need to be submitted to the class to solve. But it is also possible that the problem to be solved is selected by the student. The next task is to provide a resource teacher for students to learn in order to solve the problem. Guidance and supervision of teachers are still needed, but the intervention of students in problem solving activities should be reduced.

Although in practice the application of inquiry learning methods vary considerably, depending on the situation and condition of the school, but it may be mentioned that learning by inquiry method in (Kunandar 2007:3) has five components in common: question, student engagement, cooperative interaction, performance evaluation, and variety of resources.

* 1. Question

Learning usually starts with an opening question that provoke curiosity or admiration of students and students will be a phenomenon. To facilitate this process, teachers asked to students about a possible hypothesis. Of all the ideas are there, selected one of the hypotheses that are relevant to a given problem. Students are given the opportunity to ask questions, which are intended as guides to the core questions that will be solved by students. Furthermore, the teachers convey the core question or core problem to be solved by students. To answer this question - according to Bloom's Taxonomy - students are required to perform several steps such as evaluation, synthesis, and analysis. The answers to core questions can not be found for example in the textbook, but must be made or constructed.

* 1. Student Engagement

In the method of inquiry, the active involvement of students is a necessity while the teacher's role is as facilitator. Students are not passivelywriteanswer questions in the field or to answer the questions at the end of thechapter of a book, butclaimed involved in creating a product that shows student understanding of concepts learned or in doing a investigation

* 1. Cooperative Interaction

Students are required to communicate, work in pairs or in groups, and discuss various ideas. In this case, students are not currently compete. The answer to the problems posed teachers can come in many forms, and may have all the right answers.

* 1. Performance Evaluation

In answer to the problem, usually students are asked to create aproduet that can describe the knowledge of the problems being solved Theform of this product may be a slide presentation, charts, posters, essays, and others.

* 1. Variety of Resources

Students can use a variety of learning resources, such as texts, websites, television, videos, posters, interviews with experts, and others.

One inquiry method of learning strategies that allow learners to get the answers themselves. This learning method in the delivery of learning materials is not in final form and not directly. That is, the learners own method of inquiry given the opportunity to seek, investigate and solve the answers, u«ng problem solving techniques. Approaches and learning strategy is currently expected to further emphasize that the students regarded as a subject of study.

This concept is aimed at a more meaningful learning outcomes for students. The learning process took place naturally, students 'work' and experience, not a transfer of knowledge from teacher to student. Education is no longer centered on the institution or teacher who only scored less qualified graduates, but centered on the learner.

Inquiry approach is a teaching approach where students formulate problems, designing experiments, collecting and analyzing data to make their own decisions. Inquiry approach must meet four criteria are clarity, appropriateness, accuracy and complexity. After the teacher invites students to pose problems that are closely related to topics that will be taught, students will engage in inquiry activities with through the 5 phases are:

Phase 1 : Students face problems that are considered by students provides a

challenge to be investigated.

Phase 2 : Students are collecting data to test the conditions, the specific nature of the object of careful examination of the situation and problems encountered.

Phase 3 : Students collect data to separate the relevant variables, hypothesize and experiment to test the hypothesis in order to obtain a causal relationship.

Phase 4 : Formulating the inquiry findings to obtain an explanation, statement,

or a more formal principle.

Phase 5 : An analysis of the process of inquiry, a strategy made by teachers and students. Analysis is needed to help students focus on finding the cause and effect.

As mentioned earlier, the Inquiry, is an extension of discovery that is used in more depth. That is, inquiry contains a higher mental processes level. For example: Formulating problems, design experiments, conduct experiments, collect data, analyze data, make inferences, and so forth.

According to Syafaruddin(2005:170), the role of teachers in strategies inquiry

a. Motivator, which provides stimulation so that students are active and passionate thinking.

1. Facilitator, which shows a way out if there are obstacles in the process of student thinking.
2. Avatar, to sensitize students from mistakes.
3. Administrators, who are responsible for activities in the classroom.
4. Steering, which led the current activities of students thinking that the expected goals.
5. Manager, the process of learning resources, time, and school organization.
6. Rewarder, which reward achievement in reaching students.
   1. Characteristic of Teaching General Inquiry

According to Roestyah (1990:61), all have the typical teaching methods of each, as well as methods of inquiry. In general, assume the character as follows:

1. The teacher tried to stimulate students to think actively by means of, among others:

1) Asking questions of the mind (through question)

1. Encourage students to make explanations and formulate hypotheses interpretation / opinion.
2. Asking students to apply the principles into a variety of situations.
3. Encourage students to process data and information.
4. Exposes students to the problems, contradictions, implications, assumptions about the value (values conflict).
5. The teacher tried to keep the atmosphere free (permissive) and encourages students to dare to break the fruit of his own mind in ways:
   1. Be helpful and open to opinion (supportive and acceptive)
   2. Directing the positive things.
   3. Willing to accept and check / weigh all the effort on the proposed student.
   4. Let the spirit, light heart, and likes to grant (approval).
   5. Giving students the opportunity to act creatively and independently.
   6. Encourage students to dare to exchange opinions and analyze opinions and different interpretations
6. Teaching inquiry involves a wide variety of problem solving, either

individually or in groups.

1. The method of inquiry is open-ended and controversial

Syafaruddin (2005: 169) state has the characteristics of inquiry learning, s follows:

1. To do in a particular case. Here the people to do something and see its effect.
2. Understand the case, so that if a similar situation arise again, one can anticipate the effect.
3. Generalization, understand the general rule does not mean able to express it in a particular symbol, such as writing (verbal symbol).
   1. The Principles of the Use of Inquiry Technique

According to Creswell, (2009:199), the Inquiry technique is a strategy that emphasizes the intellectual development of children. Mental development (intellectual) was influenced by Piaget's four factors: the maturation / maturation, physical experience, social experience, and equilibration. The principles include:

* 1. Oriented on intellectual development.
  2. Principle of Interaction
  3. The principle of asking
  4. The principle of learning to think
  5. Principle openness
  6. Kinds of Inquiry

According to Nunan (1996: 260), there are three form of the inquiry method, are: guided inquiry, open inquiry, and the individualized inquiry investigation,

1. Guided Inquiry

As the teacher becomes more involved, more structure is provided, and this result is less freedom for students to take initiative and direction for their own learning experiences.

1. Open Inquiry

As the teacher provides the data to help students draw conclusion, and students involved in determining the direction of learning process as they start with a problem of concern to them, propose solutions, gather and analyzing data, and draw conclusion.

1. Individualized Inquiry Investigation

involves identifying able and interested students who will benefit from engaging in independent study.

There are four forms of inquiry technique:

1. Structured inquiry

Students are given a step-by-step procedure, including diagrams for making various types of electrical circuits, including series and parallel. Questions prompt students to remove individual bulbs from each circuit and record their observations.

1. Guided inquiry

Students are given batteries, bulbs, wires and other materials. Procedures instruct them to make a bulb light as many ways as they can using the supplies provided. Later, they are instructed to make two bulbs light, again, using different combinations of materials. Finally, students are asked to note what happens when they remove individual bulbs from their circuits.

1. Open inquiry

Students are given batteries, bulbs, wires, and other materials. They are instructed to investigate how bulbs light in electrical circuits.

1. Learning cycle

Students follow guided inquiry procedures, then the teacher discusses their findings. Concepts such as series and parallel circuitlys are introduced at this time. Students have experienced the concepts before their introduction. They eventually return to the lab to apply what they have learned to a new situation. For example, they could be give additional equipment, such as ammeters or voltmeters, to quantitative investigate current and voltage in circuits.

* 1. Strategy of Inquiry Technique

Strategy implementation of inquiry are:

1. The teacher provides explanations, instructions or questions on material that will be taught.
2. Giving the task to students to answer the question, the answer can be found in the learning process experienced by students.
3. The teacher gives an explanation of the problems that might confuse the learner.
4. Recitation to impart the facts that have been studied previously.
5. Students are summarized in the form of the formulation as the conclusions that can be accounted for (Mulyasa2005:236).

Teachers use the technique when has the objective that the students turned on by the task, and actively search for and examine their own solution to the problem. Finding the source of its own, and they learn together in a group. It is expected that students are also able to express ideas and formulate conclusions later. Also they are expected to argue, to refute and defend his opinions. Inquiry contains a higher mental processes level, such as formulating the problem, plan experiments, conduct experiments, collect and analyze data, draw conclusions. In the method of inquiry can be grown objective attitude, honesty, passion curious, open, and so forth. Finally, to achieve a mutually acceptable conclusion. If students do all the above activities mean students are doing inquiry.

Method of inquiry by Roestiyah (1990:75) is a technique or a way that teachers used to teach in front of the classroom, where teachers share the task of researching a problem to the class. Students are divided into several groups and each group gets a specific task to do, then they are studying, researching, or discussing its role in the group. After their work in a group discussion, then made a well-structured reports. Finally, the results reported to the plenary session reports, and there was widespread discussion. From the plenary session the conclusions will be formulated as a continuation of the work group. And the final conclusion that if there is still follow-up should occur, it should be noted.

**H. Advantages and Disadvantages of Inquiry Technique**

1. Advantages of Inquiry Technique

Roestiyah (1990: 76) says that inquiry learning has

advantages as follows:

1. Can establish and develop students' self concept so that they can understand the basic concepts be well.
2. Help in using the memory and transfer in learning situations that new.
3. Encourage students to think intuitively and the hypothesis formulated self.
4. Motivate students to think and work on their own initiative, to be honest and satisfaction.
5. Open situation.
6. Give learning to become more exciting.
7. Able to develop individual talent or skill.
8. Give student freedom to self learn
9. Avoid how to learn and grow objective attitudes, honest, inquiring, open, etc. Finally can achieve conclusion that be agree together. If the students do activity above it means they do inquiry

j. Give sufficient time so that students can assimilate and accommodate information.

According to Syafaruddin (2005: 171), by using a strategy of inquiry, the learners

will have the conceptual skills, problem solving and decision making. This

is very useful in dealing with complex issues in his life.

Inquiry technique has some advantages:

1. Able to establish and develop basic concepts to students, so students can understand the basic concept ideas better.
2. Assist in the use of memory and transfer the new learning situation.
3. Encourage students to think and work on his own initiative, to be honest, objective, and open.
4. To encourage students to think intuitively and formulate their own hypothesis.
5. To provide intrinsic satisfaction.
6. The learning situation more exciting.
7. It can develop individual talents or skills.
8. Giving students the freedom to learn on their own.
9. Avoidance away from traditional ways of learning.

j. Can provide sufficient time to the students so that they can assimilate and accommodate information.

According to Mulyasa (2009: 208), (inquiry learning strategy) is

learning a lot at the recommended because it has several advantages,

among others:

* 1. learning strategy that emphasizes the development of cognitive, affective, psychomotor, in a balanced way so that learning through this strategy is considered more meaningful.
  2. ILS can provide space for students to learn according to their learning styles.

1. ILS is a strategy consistent with the development of modern learning psychology who think learning is a process of behavior change thanks to the experience.

d. Another advantage is this strategy can serve the needs of students who have abilities above the average. This means that students who have good study skills will not be hampered by the weak students in learning.

According to Alma (2009:57), the benefits for students in developing inquiry is to sharpen their skills in designing and using a process of inquiry that is different from other methods that students can make their own decisions / independent.

1. Weakness ILS (Inquiry Learning Strategy)

Besides having the advantage, the ISL also has a weakness, including:

* + 1. If the ILS is used as a learning strategy, it will be difficult to control the activity and student success.
    2. This strategy is difficult to plan because it collided with the learning by students in a learning situation.
    3. Sometimes in implementing them, need a long time so the teacher is difficult to adjust to the time that is specified.
    4. During the study success criteria determined by the ability of students to master the subject matter, then the ILS will be difficult to be implemented by each teacher.