**CHAPTER III**

**RESEARCH METHODOLOGY**

In this chapter, a set of methodology that was useful for conducted this study was presented. It includes the research design, subject of the study, variable, data and data source, methods and instruments of collecting data, data analysis technique, and hypothesis testing.

**A. Research Design**

This research was conducted in an experimental design using quantitative approach with One-Group Pretest-Posttest design. Experimental research is a scientific investigation in which an investigator manipulates and controls one or more independent variables and observes the dependent variable or variables for variation concominant to the manipulation of the independent variables (Ary, 1985:26). Experimental research can be done in the laboratory, in the class and in the field.

Experimental research is unique in two very important respects . It is the only type of research that directly attempts to influence a particular variable, and when properly applied, it one or more dependent variables. An experimental usually involves two groups of subjects, an experimental group and a comparison group, although it is possible to conduct an experiment with one group (by providing all treatments to the same subjects) or with three or more groups (Frankle and Wallen, 1996:264).

This research used pre-experimental with One –Group Pretest-Posttest design. This research was classified as pre-experimental design because it was little or no control of extraneous variables. In the One-Group pretest-posttest design, a single group was measured or observed not only after being exposed to a treatment of some sort, but also before.

A diagram of One-Group Pretest-Posttest design :

Y1 X Y2

Pretest Treatment Posttest

The procedures of experimental research that use One-Group Pretest-Posttest design:

1. Administering a pretest with a purpose of measuring the speaking achievement of fourth grade students at MI UMMUL AKHYAR

2. Applying the experimental treatment teaching speaking by using puppet media to the subjects (fourth grade students at MI UMMUL AKHYAR)

3. Administering a posttest with a purpose of measuring the dependent variable (speaking achievement) of fourth grade students at MI UMMUL AKHYAR)

Differences attributed to application of the experimental treatment were determined by comparing the pretest and posttest scores. The illustration of this design likes above.

**B. Subject of the Research**

The population of this research was the students of fourth grade at MI UMMUL AKHYAR in academic 2010/2011. There was one class consists of 24 students, 10 boys and 14 girls. In this research, all the students were used as the population of the research due to the fact the number of students in the class are relatively small.

**C. Variable and Data**

1.Variable

A variable is a concept- which means for variation within a class of objects. Variables can be classified in several ways. The most important classification is on the bassis of their use within the research under consideration, when they are classified as independent variables or dependent variables (Ary et al, 1985:30).

a. Independent variable : is variable that consequence of or upon antecedent variables. One independent variable must be the treatment variable. One or more groups receive the experimental manipulation or treatment. In this research independent variable was the use puppet as a media in teaching speaking.

b. Dependent variable : is the response or the criterion variable that is presumed to be caused by or influenced by the independent treatment conditions and any other independent variables. The dependent variable of this research was the students’ achievement of speaking that taught using puppet as media.

2. Data

Data are the kinds of information researchers obtain on the subjects of their research. The data collected in this research were in the form of students’ score in the test of speaking, pre test and post test.

**D. Data Collecting Method and Instrument**

The data collecting methods and instrument were needed to obtain the research data. There was a method of collecting data used in this research. It was administering test.

A test, in simple terms is method of measuring a person’s ability, knowledge or performance in a given domain (Brown,2004:3). Test was used in this research to obtain score of student achievement in speaking ability. The researcher used two kinds of test, they were pre- test and post- test. In this research, to decrease the subjective of the scoring, pre-test and post-test are conducted twice.re-pre test, re-post test, pretest and posttest. Each test consists of 10 questions in 5 minutes by using oral interview technique. Both re-test and test, students got score are relatively similar likes attached in appendix.

Pre- test was given before doing an experimental study or before teaching by using puppet media. It was conducted at May, 19th 2011 to get the speaking score of students before doing treatment. In pre- test, the researcher using oral interview test with 10 questions about calendar (includes the name of days and months) about 5 minutes for each students. The researcher asked 10 questions and the student is asked to answer those questions orally.

Post test was given after doing an experimental study or after teaching by using puppet media. It was conducted at May, 26th 2011 to get speaking score of students after doing treatment. Post-test is conducted through oral interview test. Each students gets 10 questions about calendar (includes the name of days and months) and limited times about 5 minutes. The researcher asked 10 questions and the student is asked to answer those questions orally.

In this research, to get scores from students in pre- test and post- test the researcher used analytical oral language scoring rubric because by using this scoring rubric we know the speaking ability of students completely and specifically.

**Table 3.1 Analytic Oral Language Scoring Rubric (O’malley, 1996: 67)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Focus/Rating | 1 | 2 | 3 | 4 | 5 | 6 |
| Speaking  | Begins to name concrete objects | Begins to communicate personal and survival needs | Begins to initiate conversation; retells a story or experience; asks and response to simple questions | Initiates and sustains a conversation with descriptors and details; exhibits self-confidence in social situation; begins to communicate in classroom settings | Speaks in social classroom settings with sustained and connected discourse; any errors do not interfere with meaning | Communicates competently in social and classroom settings |
| Fluency  | Repeats words and phrases | Speaks in single word utterances and short patterns | Speaks hesitantly because of rephrasing and searching for words | Speaks with occasional hesitation | Speaks with near native fluency; any hesitations do not interfere with communication | Speaks fluently |
| Structure  |  |  | Uses predominantly present tense verbs; demonstrate errors of omission (leaves words out, word endings off) | Uses some complex sentences; applies rules of grammar but lacks control of irregular forms (e.g., runned, mans, not never, more higher) | Uses a variety of structures with occasional grammatical errors | Master a variety of grammatical structures |
| Vocabulary  |  | Uses functional vocabulary | Uses limited vocabulary | Uses adequate vocabulary; some word usage irregularities | Uses varied vocabulary | Uses extensive vocabulary but may lag behind native-speaking peers |
| Listening  | Understanding little or no English | Understands words and phrases, requires repetition | Understands simple sentences in sustained conversation; requires repetition | Understands classroom discussions with repetition, rephrasing, and clarification | Understands most spoken language, including classroom discussion | Understands classroom discussion without difficulty |

**E. Data Analysis Technique**

In this research, the writer used statistical data analysis technique to know the difference between the students’ achievement in speaking ability before and after being taught by using puppet media in teaching speaking process.

To analyze the data, the researcher in this research used T-Test as formulated below (Arikunto:2006:306).

 t : $\frac{Md}{\sqrt{\frac{∑x^{2}d}{N(N-1)}}}$

Notes:

Md : means of different pre-test and post-test

Xd : deviation in every subject (d – Md)

∑x2d : total of quadrate deviation

N : subject of sample

d.b : decide by N-1