

CHAPTER III

RESEARCH METHOD

This chapter presents six topics dealing with the research method. Those are research design, variable, population, sample and sampling, procedure of the research, research instrument, data collection method, data analysis.

A. Research design

This research was conducted in an experimental research design. Experimental research design is a scientific investigation in which the researcher systematically manipulates of one or more independent variable(s) on another variable, and observes the effect of the manipulations of dependent variable. (Ary, Jacob, Sorensen and Razaveah 2010:26).The researcher use experimental research to obtain accurate measurement since it is the right type of research to establish cause and effect relationship among variables.

Moreover, this research was in educational setting and the researcher was unable to random assign the research subject. Marczyk, DeMatteo and Festinger (2005:125) stated that if random assignment is not used and the design use either multiple groups or multiple waves of measurement, the design is considered quasi-experimental. A quasi-experimental design utilized because some factors which made the researcher impossible to use true experimental design. Here are some considerations. This research was carried out in a classroom setting where random assignment for subjects could not be conducted and two groups of

subjects in provided by the school authority, although the selection which group was experimental or control group was selected randomly (Ary, Jacob, Sarensen and Razavieh, 2010). Not only that factor, but also factor that come from the school situation, the schedule could not be disturbed to accommodate this research. Thus, it was necessary to use groups as they were already organized into class.

Basically, the experimental and the control group participated in almost similar teaching and learning activities. The difference between those two groups was on the strategy being used, the experimental group was using CSR and control group was taught by conventional strategy.

In addition to quasi-experimental design, factorial design also applied in this research. A Factorial design is one in which the researcher manipulates two or more variable simultaneously in order to investigate the independent effect of each variable on the dependent variable, as well as the effect caused by interactions among the several variable (Ary, 2010:311). The reason of using factorial design was that this research attempted to investigate the independent and simultaneous effect of the two types of teaching strategies and learner personalities on reading comprehension. The researcher used factorial design to investigate the effect of the treatment in the form of teaching strategy (CSR) at different levels of learner personalities on students' reading comprehension. The design called a two by two-factorial design written 2×2 to indicate the levels involved at each independent variable. The design of this research is show in Table. 3.1

Table 3.1. The factorial quasi-experimental design

Learning Style	Teaching strategy	
	CSR (A ₁)	Conventional Teaching Strategy (A ₂)
Introversion (B ¹)	A ₁ B ₁	A ₂ B ₁
Extraversion (B ²)	A ₁ B ₂	A ₂ B ₂

Notes :

A₁: CSR

A₂: Conventional teaching strategy

B₁: Students with Introversion learning style

B₂: Students with Extraversion learning style

A₁ B₁: Students with Introversion learning style taught by CSR

A₁B₂: Students with Extraversion learning style taught by CSR

A₂ B₁: Students with Introversion learning style taught by Conventional Teaching Strategy

A₂ B₂: Students with Extraversion learning style taught by Conventional Teaching Strategy

Based on the design in Table 3.1, there were four cells involve. They consisted of cell 1 (A₁B₁) shown students with introversion learning style who receive reading instruction by CSR. Cell 2 (A₁B₂) shown students with extraversion learning style taught by CSR. Cell 3 (A₂B₁) describe students with introversion learning style taught reading by using conventional teaching strategy and cell 4 (A₂ B₂) which describe students with extraversion learning style taught

by conventional teaching strategy. Referring to this design, the reading comprehension of students taught by using CSR and those taught by using conventional teaching strategy were first investigate. The investigation conducted by observing the effect of different learner personalities in each students group on their reading comprehension

The procedure of factorial quasi-experiment consisted several stages. Prior to the treatment, learning style questionnaire was administered to the students to find their learner personalities. The result obtained from the questionnaire the students were classified into extroversion and introversion groups. Pretest did not conduct in this research because the data to answer the research problems were only students' reading comprehension scores indicated by the result of posttest.

Then, in the process of the treatment, students in the experimental group received CSR instruction and those in the control group were received conventional teaching strategy. Upon the completion of the treatment, posttest of reading comprehension was done to obtain the data to test whether the independent variables had effect on students' reading comprehension.

1. Treatment

The treatment of CSR conducted to the experimental group while the conventional strategy was conducted in the control group. To optimize the treatment accuracy, the researcher briefing the teacher after the schedule of the treatment established. This decision was taken to avoid personal bias in favor of CSR over the conventional teaching strategy and to avoid either intentional

or unintentional behavior, which could improve the experimental groups' performance. Therefore, it could be a consider that the result of posttest was not influenced by the teachers' characteristics and personal behavior.

To implement the teaching strategies, the lesson plan designed by the researcher for both groups. According to the lesson plan , the experimental and control group received same material which were selected based on the syllabus of Eighth grade which used in MTs Darul Huda, the students should be able to understand texts in the form of recount text, descriptive text, and report text. Among the aforementioned genre of the texts, the researcher select personal recount text. The treatment was done in 8 meetings. Seven personal recount texts were used as the reading materials with various topics. At the first meeting of the treatment, one personal recount text was used. It was as a model text in the explanation of recount text in both groups and the model text explicit instruction of CSR in the experimental group. In the second up to the eighth meetings, one recount text was used as reading text during pre-as well as while reading and the reading text for comprehension task during post reading. Discussion between researcher and the teacher to achieve mutual understanding to design the lesson plans and regulate the classroom condition (see appendix 1 and 2).

The steps to do CSR strategy in teaching reading comprehension of this research was designed based on the adaptation of CSR procedure promoted by Klinger et al. (2001). There were two phases in the eight meeting treatment, explicit instruction of CSR strategy from the first to second meetings and

collaborative application of CSR strategy from the third up to the eight meetings. The treatment done in 8 meetings in order to make students had enough time to grasp explicit instruction and do collaborative application of CSR well. All the four CSR strategies were practiced in each meeting with specific time allotment. The students were scaffolded in the practice of each CSR strategy in the first four meetings of the collaborative application, the seventh and eighth meeting the teacher only monitoring, give assistance and facilitate classroom interaction. The structured steps of the CSR in 8 meetings, shown that the students in the experimental group have sufficient time to learn recount text, learn to apply CSR and practice CSR while reading English texts.

a. Explicit Instruction of CSR strategy

The first step, the teacher distributed recount text and presented the steps of CSR strategies to the whole class using explicit instruction and modeling so the students could get a sense of CSR style strategic reading. The teacher modeled how to do previewing strategy, click-and-clunk strategy, get-the gist strategy and wrap-up strategy to comprehend the text given. In this phase, the students were asked to practice the strategies together to understand the strategies well. While practicing the strategies, students were instructed to fill the learning log that provided with the teacher's (see appendix 1d). The learning log consists of three components, namely before reading covering what the students already know about the topic of the text and what they will learn, while-reading covering clunks the

student face, fix-up strategies they use and gist of the text, and after reading covering what they have learned of the text.

In giving explicit instruction to apply previewing strategy, the teacher modeling how to preview the clues in the giving text, such as title. Students observed the teacher brainstorming what was already known about the topic and predicting ideas which might be learned from the text.

The teacher asked the students to read the text in modeling click-and-clunk strategy, identify “clunk” which was comprehension breakdown and simulated fix-up strategies to face the comprehension breakdown. The fix-up strategies were rereading the sentence and look for the key ideas to help them understand the word, rereading the sentence with the clunk and the sentence before or after the clunk looking for clues, looking for a prefix or suffix in the word and breaking the word apart and look the smaller words. The purpose of clicking and clunking was to teach students to monitor their reading comprehension, identify when they failed to understand and fix comprehension breakdowns.

The third strategy was get the gist. Gist mean that students are able to state the main idea of a paragraph in their own words. The teacher taught and simulated how to identify the most important who or what in the paragraphs and state the main point of the paragraphs in ten words or less.

The last strategy was wrap-up. This strategy apply with formulating questions about what students had learned as well as the answers and

writing summative statement. The teacher simulated how to generate questions about important information in the text by WH questions.

b. Collaborative Application of CSR Strategy

Collaborative application of CSR as the second phase was executed as follows. The students were instructed to work in groups. The group were six groups consist of six five or six members (see appendix 1b). The group were organized by the teacher. The students in each group were assigned the following roles : a leader, a clunk expert, a gist expert and a note taker. Each students was given a cue card illustrating what was required of him or her (see appendix 1a)

The student in groups review the instructional practice of CSR and received worksheet where in recount the teacher provided text (see appendix 3). The groups apply the collaborative application of CSR by practicing previewing, click-clunk with fix-up strategies, get the gist and wrap-up strategies using guidelines provided in their worksheet. The students fill learning log while practicing this strategy. The students do this collaborative work based on the cue cards. After done the wrap-up strategy, the students answer the questions other groups and share their summative statement of the text. The third to eight meeting, selected groups were asked to share some results from the practice of the reading strategies to the whole class. Then, the teacher moved from one group to another group for scaffolding,

providing feedback and asking questions to check for students' understanding.

The procedure of the second phase was continued by assigning group comprehension task about the text and do class discussion of the comprehension task. From the sixth to the eight meeting, individual comprehension task was assigned after the class discussion. The whole procedure was integrated in three phases in the lesson plans, namely pre-reading including previewing strategy, while reading including to click and clunk and get the gist strategy and post reading including wrap-up strategy. Similar to the experimental group, the process teaching and learning in the control group was also conducted in three-phase technique. Table 3.3 summarizes the general procedure of CSR in the experimental group and that of conventional teaching strategy in the control group.

Table 3.3 The General Procedure of Teaching and Learning Process in the experimental and the Control Groups

General Procedure of CSR in the experimental group	General Procedure of Conventional Teaching Strategy in the Control group
A. Explicit Instruction of CSR strategy (Meetings 1-2) 1).Teacher gives brief explanation about personal recount text to the students in the first meeting. 2) Students get explanation of CSR	Pre-Reading 1) Brainstorm the students by ask them to leading questions about the topic of the text learned. 2) Teacher inform reading objective

<p>and the procedure of CSR</p> <p>3) Students get the explicit instruction and modeling on the strategies in CSR to comprehend personal recount text. The students practice the following strategies guided by the teacher :</p> <ol style="list-style-type: none"> Previewing strategy as pre reading. Click and clunk and fix-up strategies and get the gist strategy as while reading activity Wrap-up strategy as post reading activity <p>4) Students practice fill CSR learning log guided by the teacher</p> <p>5) Students discuss guided by the teacher</p> <p>B. Collaborative application of CSR strategy (meeting 3-8)</p> <p>Pre-reading:</p> <ol style="list-style-type: none"> 1) Students grouping based on the list. The teacher explains the role of each member of groups reviews the instructional practice of CSR and distributes the worksheet. 2) Students are introduced the topic that will they learn 3) Students apply previewing 	<p>While Reading</p> <ol style="list-style-type: none"> 3) The first meeting, teacher explain personal recount text and its example. 4) Students listen the teacher reading the personal recount text. 5) Students asked to identify the orientation, events, and reorientation of the text 6) Students reading aloud the text then asked some particular sentences and word meaning in Indonesian. <p>Post Reading</p> <ol style="list-style-type: none"> 7) Students are assigned to answer some questions on the text. 8) Some students write their answer on the whiteboard 9) Teacher and students check the written answer. 10) Students are asked to do individual task for different personal recount text (meeting 3-8) 11) Students submit their individual work (meeting 3-8) 12) Teacher concluded the lesson.
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<p>strategy on the text given, brainstorm, make prediction about the text, and discuss the pre-reading questions based on the guidance in the worksheet. The teacher gives scaffolding and feedback when any group found problems. Students fill learning log for the pre reading activity.</p> <p>4) Some representative of the groups share the result of pre-reading to the class (third and for meetings)</p> <p>While Reading</p> <p>5) Students read the personal recount text. While reading each paragraph, students identify “clunk” and write them in their learning log.</p> <p>6) After reading each paragraph, students return to the clunk and use fix-up strategies taught in previous meetings.</p> <p>7) Students apply get-the gist strategy by restating in their own words the main idea from each paragraph. The activities in while reading are scaffold by the teacher</p> <p>8) Some of groups share the result of get the gist activity to the whole class (meeting 3-6)</p> <p>Post Reading</p> <p>9) Students apply wrap-up strategy by</p>	
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generating questions related to the text and answer them.	
10) Students write the most important ideas from the text in the learning log	
11) Students do comprehension task in-group.	
12) Students discuss to check the task facilitated by the teacher.	
13) Students do individual comprehension task (seven to eight meetings)	
14) Students submit their work.	
15) Students and teacher conclude the lesson.	

The researcher implemented CSR in the experimental group and conventional teaching strategy in the control group for 8 meetings, The researcher give briefing to the teacher who teach in the control group.. The detailed schedule displayed in Table 3.3

Table 3.3 The teaching schedule in the experimental group and the control group

Meeting	Experimental Group	Control Group
1 and 2	Saturday, 6 April 2019	Tuesday, 2 April 2019
3 and 4	Saturday, 13 April 2019	Tuesday, 9 April 2019
5 and 6	Saturday, 20 April 2019	Tuesday ,16 April 2019
7 and 8	Saturday, 27 April 201	Tuesday , 23 April 2019

Before conducting the teaching strategies, the researcher set up the material to support the treatment. The material was in the form of recount text which consisted 3-5 paragraphs. The researcher choose the genre of text based on the syllabus K13 and standard competence for eight grade. The material took from websites in internet, student's activity book and previous national examination handbook. Then, to execute the teaching strategy, the researcher designed the lesson plans for experimental and control groups.

In implementing the experiment, the researcher was helped by the English teacher of MTs Darul Huda Blitar to teach both experimental and control groups. Every meeting in experimental group and control group had different recount texts. Two stages from four strategies of CSR practiced in each meeting with specific allocated time. Particularly in the first to third meetings of the collaborative application, the students scaffold in the practice of each strategy in CSR. The subsequent meetings, six and seven meeting were devoted to the collaborative application of CSR where teacher only monitored, gave assistance if the groups encountered problems and facilitated classroom interaction.

On the first treatment for the experimental group, the researcher used four stages in CSR those are preview, click and clunk, get the gist and wrap-up. In the *preview*, researcher distributed a recount text and divided students into six groups. Every group of students used cue card to implement their roles. The students use CSR learning log to record ideas while applying every technique. The researcher brainstormed the students to express their ideas freely. Then, the students make a prediction about the topic, find clues from the title, headings,

subheadings, or pictures, and chart about what they will learn and skim the text for keywords.

Next, *Click and Clunk*, the researcher ask the students to read all paragraph to find information, identify words and concepts what they know (*click*) and what they did not know (*clunk*) while the process of reading.

Get the gist, the students read again the entire paragraph from the passage to identify the most important person, place or thing in their own words. After that, *Wrap up*, the researcher asked students in groups to learn wrap up by formulating explicit and implicit questions and answers about what they have learned and by reviewing key ideas. The key ideas use WH questions (who, what, when, where, why and how).The students write down the most important ideas they learn from the days reading assignment. The students share their ideas and submit their works. These steps performed the same in each treatment.

For the control group, the researcher distribute the recount text and brainstorm the students to activates and provide background knowledge, students ask some general questions to relate the topic in the text. Then, during reading activities researcher asked the students to read aloud the text and correct on oral reading error. The researcher introduces new vocabulary to the students from the text. The students answer the questions and the researcher discussed text in whole classroom.

B. Variables

This research used two variables namely independent variable and dependent variable. The independent variable was the factor that was controlled or

manipulated by the researcher while an dependent variable was measured by researcher of the effect of the independent variable. There were two independent variables involved in this research: active and attribute variable. Active independent variable as one that researcher can manipulate directly, meanwhile an attribute independent variable was one the researcher cannot actively manipulate. The active variables of this research were Collaborative Strategic reading (CSR) and Conventional teaching strategy. The second attribute independent variable was students' different learner personalities extroversion and introversion. The dependent variable was students reading comprehension that is observed and measured.

Table 3.4. Table of Variables

Variables		
Independent		Dependent
Active	Attribute	
CSR, Conventional Teaching Strategy	Learner personalities (Introversion, Extraversion)	Reading Comprehension

C. Population, Sample and Sampling

1. Population

A population defines as all members of any well-defined class of people, events, or objects (Ary, 2010: 148). The population of this research was the eighth grade students of MTs Darul Huda Wonodadi Sub district, Blitar regency, East Java Province, at the second semester in 2018-2019 academic years. This school was considerate suitable to be the setting of the

study since it was accessible. There were 3 classes available with total number 93 students. The number of students in each class is present in table.3.5.

Table 3.5 The Data of students from Eight Grades.

No	Class	Number of Students		
		Male	Female	Total
1	8A	22	11	33
2	8B	21	11	27
3	8C	16	19	33
	Total	59	41	93

2. Sample

Sample is a portion of population. Latief (2016: 195) states sample is smaller number of the accessible population. It means that a good sample must be representative of the entire as possible, so that the generalization of the sample as true as population. The researcher use purposive sampling to determines sample of this research. VIII-A and VIII-C classes selected to be a sample. Each class consist of 33 students. Prior to the research conduct, preliminary study has been done by observing the students in teaching and learning process. The data from the preliminary research indicated that the classes were almost equal in terms of the student number and the number of male as well as female students.

3.Sampling

Sampling is process to select and decide sample become subject of the research (Sukmadinata,2012:252). The researcher determined the sample of the research used nonprobability sampling with the purposive sampling type. Ary

(2010:149) stated that nonprobability sampling includes methods of selection in which elements are not chosen by chance procedures. It used when the application of probability sampling is feasible. The purposive sampling uses in this research because the researcher consciously selects subjects base on the consideration and purpose of the research herself.

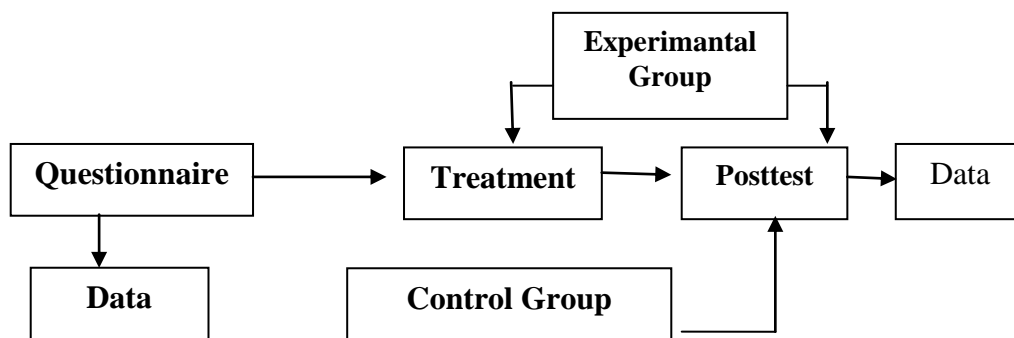
D. Data Collection Method and Research Instrument

1. Data Collection Method

In this research, researcher collecting data through distributing questionnaire to collect the data of learner personalities and administering test for posttest. The process data of data collection before treatment was identification of students' learner personalities, while the process of data collection after treatment was post-testing.

Before the treatment, the learning style questionnaire administered to both groups. The students were classified into two groups namely introversion and extraversion learner personalities. The researcher used scoring system to determined students learner personalities. The scoring process, tabulation and recording of these data obtained from the experimental.

Figure 3.1 The Data Collection Method



The technique of collecting data clarified as follows:

a. Distributing questionnaire

The questionnaire gives before post-test in both experimental and control group. The questionnaire is about the student's learner personalities. The questionnaire consists of twenty questionnaire items to see their learner personalities for completing the data. This questionnaire was validate from the content and construct to the expert before distributed to the students. There was two student's learner personalities; extroversion and introversion.

The students were required to choose the option (A or B) that represent their learning style. There were twenty indicators with two option, "A" refers to extroversion learning style and "B" refers to introversion learning style. In this research, researcher use theories learning style questionnaire adapted from Jung and Briggs Mayer (1986) considered appropriate.

b. Post-Test

Post-test given to the experimental and control groups after the students get treatments taught by CSR in teaching reading comprehension. Post-test done to know the students reading comprehension score. The researcher informed the purpose, procedure and time allocation test. In this case, the researcher gave 25 questions in the form of multiple choices. The result of post-test were compared to see whether the experimental group significantly out performed the control group.

The post-test was done in the eighth (8th) meetings. The experimental group was given treatment using CSR, and the control group was taught with conventional teaching strategy.

2. Research Instrument

The instruments of this research were reading comprehension test and learner personalities questionnaire. The reading comprehension test was utilized to both experimental and control to yield students' reading comprehension post-test score. Then, the second instrument is a questionnaire to classify the students learner personalities. The detailed function of each instrument is summarize in table 3.3

Table 3.6 Research Instruments

No	Instruments	Variable measure	Function
1.	Questionnaire	Students Learning style	To classify students learner personalities based on introversion and extraversion learner personalities
2.	Reading comprehension test (as post-test)	Students' reading comprehension after treatment students' learning style (introversion and extraversion)	To test hypothesis of this research

2.1 Questionnaire

Questionnaire is the primary instrument of this research. The questionnaire was to determine the students learner personalities into introversion and extraversion learner personalities. The concept of these learner personalities refers to learning style model proposed Briggs and

Mayer (1985). The learning style questionnaire is administered to both groups of experimental group and control group.

The researcher constructed blueprint of learning style questionnaire by taking introversion and extraversion learner personalities as the dimension and the characteristics of each learning style as the variable for each dimension. Based on the blueprint, the questionnaire consists of 20 items, 10 related to introversion and 10 items related to extraversion learning style (see appendix 4).

The students were required to choose the options (A or B) that represent their learning style. There were twenty indicators referring to introversion and extraversion learner personalities. In this research, the researcher used personality test center online software then the researcher translated it into Indonesian to make the student easier to answer the questionnaire. To make the students easier to answer the questionnaire, the researcher translated it into Indonesian.

2.2 Reading comprehension test

The second instrument was reading comprehension. Reading comprehension test was used in the posttest to the students in both the experimental and the control groups. Reading comprehension test related to the ability of the students in identifying specific and detailed information, understanding vocabulary in context (antonym, synonym and meaning) understanding references, predicting the effect, solving problem, making

inferences, finding main idea of paragraph, identifying the purpose of the text and making judgment right or wrong based on the text.

The process of reading comprehension test consisted of several stages. These stages namely developing in the test specification (see appendix 6), establishing test blueprint, (see appendix7) constructing reading comprehension test item, analyzing the selection of the reading texts, conducting expert validation, doing first revision, trying out the test, analyzing the test based on the tryout result and doing final revision based on test analysis result to make final form of the test.

Reading comprehension test was a multiple-choice type that has four options for each item in which there is only one correct response (see appendix 8). The researcher used multiple-choice test because has some advantages. The first advantage the scoring can be perfectly reliable. The scoring should also be rapid and economical. The second advantage was possible to included more items than others forms of tests since the test-takers have only to make a mark on the paper (Isnawati,2012:32).

The selection of the texts used in the post-test based on the English syllabus used by the school and the students' familiarity of the text topic. The genre of the text was factual recount text. Nine texts were selected from English books as well as the internet and the topics were those the students were familiar with. The students' familiarity of the topic was also discussed with the English teacher of the eight grade.

The readability of the texts were examined using Flesch Kincaid Formula in online software from <http://readability-score.com>. This formula measures the readability computed using the average number of syllabus per words per sentence. The criteria of the text readability proposed by Flesch (1949,149) in Table 3.4 were used to interpret the result of the obtained reading ease score as the criteria has been commonly used by researcher in various contexts of educational setting.

Table 3.7 Flash-Kincaid Table

Flash-Kincaid reading Ease	Grade Level	Interpretation
90-100	5 th	Very easy
81-90	6 th	Easy
71-80	7 th	Fairly easy
61-70	8 th and 9 th	Standard
51-60	High school students	Fairly difficult
31-50	Collage students	Difficult
0-30	Collage graduate	Very Difficult

(Adapted from Flesch,1949:149)

The readability analysis in the online software indicated that in general the readability of the 9 texts referred to standard and difficult level. Table 3.6 displays the detailed readability of selected 9 texts. included in the final version of the test based on tryout analysis and test amendment. These texts will do on the posttest. The reading comprehension test was in the form of multiple choice formats, the correct answer got a score 1 and incorrect answer got a score 0. The result of Text Readability using Flesh-Kincaid Formula presented on the following table.

Table 3.8 The Result of Text Readability using Flesh-Kincaid Formula

Reading Texts (Selected after try out)	Flesh-Kincaid Reading ease score	Estimating Reading	Interpretation
Terrible Experience	67,4	8 th and 9 th	standard
My holiday in granma	70,7	8 th and 9 th	8 th and 9 th
Camping	55,6	6 th	easy
Marathon	71,54	8 th and 9 th	standard
Accident	68,1	8 th and 9 th	standard
My funny story	87,7	5 th	Very ease
Galileo Galilei	34,7	Collage	difficult
Titanic	62	student	standard
Went to Yogyakarta	67,39	8 th and 9 th 8 th and 9 th	8 th and 9 th

E.Validity and Reliability Testing

1. Validity

Validity refers to the conceptual and scientific soundness of a research study or investigation, and the primary purpose of all forms of research is to produce valid conclusions.(Marczyk, DeMatteo and Festinger ,2005:66) Latief (2010:236) stated that the objective of the validation was to analyze the test validity to enable the instrument to result in valid data. The researcher uses multiple choices and matching test, it means that form both of two groups can measure the skill and component of students. To measure the test has a good validity, the researcher analyzed the test from face, content, construct and criterion validity.

a) Face Validity

The process of obtaining face validity was giving the expert the prototype of the reading comprehension test, the test specification, the test blueprint and expert validation form, asking expert judgment if the test is

appropriate to measure students' reading comprehension. Huges (2002:27) stated a test is said to have face validity if it looks as if it measures what it is supposed to measure. The face validity has fulfilled especially when the format associated with the idea of practically in measuring the reading.

b). Content Validity

In the content validity, the test is reflecting the sub skills and other component on the blueprint. The content of the test should be matched the material learned. Hughes (2002: 26) stated a test is said to have content validity if its content constitutes a representative sample of the language skills, structures, etc. with which it is meant to be concerned. Ary (2010,226) content related evidence is the degree to which the sample items on a test are representative of defined domain of content. (see appendix3)

This research validate the content validity conduct by analyzing the content of the test and the material presented in English syllabus revision K.13. This validity aim was to analyze whether the content of the test represents the reading materials in English syllabus. The description of the test items in reading comprehension test can be clearly seen at following in table.

Table 3.9 Result of Content Validity

Objective	Types	Specific objectives	Items
To evaluate the students' reading comprehension of the text that they read	Literal comprehension	Finding the specific information or facts which clearly stated in the text	25

c). Construct Validity

The construct validity is a test that the items of test measure each of thinking aspects from a variable will be measure through the test. This research conducted construct validity by analyzing the objective of the test and the type in which the students ask to do the task. Since the students' ability on reading comprehension is measured, the test must give in the reading activity. After reading the students ask to answer the questions measuring for comprehension achievement. The construct validity evidence can be seen clearly at following table.

Table 3.10. Result of Construct Validity

Objective	Type of test	Task
Measuring the students' reading comprehension .	Reading comprehension test.	Students ask to answer the reading comprehension questions.

d) Criterion related validity

Another approach to test validity is to see how far results on the agree with those provided by some independent and highly dependable test. This independent test is thus the criterion measure against which the test is validated and called criterion related validity

There are essentially two kinds of criterion related validity: concurrent validity and predictive validity (Huges,1989:22). Concurrent validity is established when the test and the criterion are administered about the same time. Demonstrating concurrent validity usually requires one group of students

to take two kinds of tests. The new test being developed and another well-established test. As a criterion measure, the researcher also administer a well-established test to the same group of students. Then the two sets of scores gotten from both tests are calculated for the correlation coefficient. Then it can be concluded that the new test is as good as the other one. The researcher used *Pearson Product Correlation Coefficient* (PPMC) through SPSS 25.0 version to found the correlation coefficient between the first and second scores. The correlation both scores evidence can be seen from the following table :

Table 3.11 Result of Criterion related Validity (Concurrent validity)

Correlations		Tryout1	Tryout2
Tryout1	Pearson Correlation	1	.969**
	Sig. (2-tailed)		.000
	N	33	33
Tryout2	Pearson Correlation	.969**	1
	Sig. (2-tailed)	.000	
	N	33	33

** . Correlation is significant at the 0.01 level (2-tailed).

The SPSS output shown that the correlation coefficient it was 0.969. It means that there is a positive correlation between try out 1 and try out 2.

2. Reliability

The reliability is an instrument that used as a collecting data that has been already good. Reliability refers to the consistency or dependability of a measurement technique, and it is concerned with the consistency or stability of the score obtained from a measure or assessment over time and across settings or conditions (Marczyk, Matteo, Festinger: 2005:103). The some point with it ,

Latief (2016: 226) stated that reliability refers to the preciseness of the language skill assessment result in representing the actual level of the skill of the examinees.

This research uses Cronbach alpha to estimate the reliability of the test. Cronbach alpha determines the internal consistency or average correlation of items in a survey instrument to gauge its reality. If the result of *Cronbachs' alpha* was higher than 0.05 (reliable index < 0.05), it means that the test was reliable.

Actually, the ideal test should be both reliable and valid. In this research, researcher used SPSS 25.0 for window to know the reliability of test instruments. The criteria of reliability instrument can be divided into 5 classes as follow (Ridwan, 2004), those are :

- a. If the *alpha cronbach* score 0.00-0.20 : less reliable
- b. If the *alpha cronbach* score 0.21-0.40 : rather reliable
- c. If the *alpha cronbach* score 0.41-0.60 : enough reliable
- d. If the *alpha cronbach* score 0.61-0.80 : reliable
- e. If the *alpha cronbach* score 0.81-1.00 : very reliable

The result of reliability testing by using SPSS 25.0 can be seen from the following table

Table 3.12 Result of Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
.779	25

The SPSS output shown that the correlation coefficient it was 0.779. It means that there is a positive correlation between variable.

F. Normality and Homogeneity Testing

1. Normality

Normality testing was aimed to examine whether the data of students' reading comprehension score were normally distributed. The normality test computed in SPSS 25.0 using Shapiro Wilk. The data were stated normally distributed if the p value was greater than 0.05 significance level (p value > sig.0.5). The rules as follow:

- a. H_0 : If the value of significance > 0.05, means data is normal distribution
- b. H_1 : If the value of significance < 0.05, means the distribution data is not normal distribution

Table 3.13 Result of Normality Test

Tests of Normality							
	Group	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Score	1	.154	33	.045	.946	33	.102
	2	.140	33	.097	.951	33	.140

a. Lilliefors Significance Correction

The SPSS output shown that the p value it was 0.102. It means that test distribution was normal.

2. Homogeneity

Homogeneity test intended to know whether the variance of data is homogeneous or not. The researcher wants to know the variance score in

classes sample with employs *Levene's statistic* in SPSS 25.0. The data were considered equal and homogeneous if the observed significance value or p value was greater than 0.05 significance level (p value > sig.05).

Prior to the research conduct, preliminary study has been done by observing the students in the teaching and learning process, interviewing the English teachers of the eight grade and collecting as well as analyzing the students' final English scores, at the end the researcher draw conclusion that the classes chosen were equal particularly in terms of English learning achievement. The data from the preliminary study indicated that the classes were most equal in terms reading achievement and number of students male and female. The brief result of homogeneity test are reported in following table.

Table 3.14 Result of Normality Test

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Value	Based on Mean	.482	1	64	.490
	Based on Median	.278	1	64	.600
	Based on Median and with adjusted df	.278	1	63.807	.600
	Based on trimmed mean	.344	1	64	.559

Based on the p value in table 3.14 the reading comprehension scores of students in the experimental and control group were homogenous. It can be seen from the sig 0,490 that higher than 0,05.

G. Data analysis

The data of this research analyzed quantitatively. It analyses by computing statistically analysis on the obtained empirical data. The first step is

computing descriptive statistic in the mean, maximum score, minimum score, range and standard deviation. To examine the statistical assumptions of homogeneity test using Levene's test, normality test and linearity test using shaphiro wilks test, and to test linearity using regression line. There three test will be computed using SPSS 25.0 program.

If all the statistic assumptions on homogeneity, normality and linearity are fulfill, parametric statistics use to analyze the data for hypothesis testing. If, one of the statistical assumptions' does not fulfill so nonparametric statistics use for hypothesis testing. This research use ANOVA to find significant difference between the experimental and the control group. In factorial design the researcher use the main effect and reciprocal effect from ANOVA (Creswell ,2014:249).

The researcher tests the hypotheses by establish the null hypotheses and the alternative hypotheses are as follows:

Null hypotheses 1

There is no significant difference in reading comprehension between students taught by using CRS and those taught by using conventional teacher strategy.

Alternative hyphoteses 1(Ha)₁:

Students taught by using CSR strategy, have better reading comprehension than those taught by using conventional teaching strategy.

The researcher stopped the research if the students who were taught by using CSR strategy did not achieve better than who were not taught by using

without an CSR strategy, but if it was contrary, the research would be continued to the following null and alternative hypotheses.

Null hypotheses 2 (H_0)₂:

There is no significant difference in reading comprehension between students with introvert learning style by using CSR and conventional teaching strategy, and those with extraversion learning style.

Alternative hypotheses 2 (H_a)₂:

Students with introversion learning style taught by using CSR and conventional teaching strategy have better reading comprehension than those with extroversion learning style.

The last hypotheses was the interaction effect between the strategy and the students' learner personalities on the students' reading comprehension. The formula of the second null and alternative hypotheses were described as follows.

Null hypotheses 3 (H_0)₃ :

There was no interaction between the teaching strategy and the students' learner personalities (introversion and extraversion learner personalities)

Alternative hypotheses 3 (H_a)₃ :

There was an interaction between the teaching strategy and the students' learner personalities (introversion and extraversion learner personalities)

The null hypotheses will be accepted if the result of SPSS shows that the obtained significant level is higher than or equal to the level of significant .05 ($p > \alpha$). However, if the p-value is smaller than or equal to the level of significance .05 ($p < \alpha$) the null hypotheses will be rejected.