# THE USE OF RCT FM ENGLISH RADIO PROGRAM <br> (SUNDAY MORNING CAFE) 

## FOR IMPROVING LISTENING SKILLS

TO THE $11{ }^{\text {TH }}$ GRADE OF SENIOR HIGH SCHOOL
(The Case of the Eleventh Year Students of MAN Purwodadi in the Academic
Year of 2008/2009)
a final project
submitted in partial fulfilment of the requirements for the degree of Sarjana
Pendidikan in english
by
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#### Abstract

Andi Nur, Ahdiyat. 2009. "The Use of English Radio Program RCT FM (Sunday Morning Café) for Improving Listening Skills to the Eleventh Grades of Senior High School." (A Case of the Eleventh Year Students of MAN Purwodadi in the Academic Year of 2008/2009). Final project. English Department. Faculty of Languages and Arts. Semarang Stete University. First advisor: Rohani, S.Pd, MA, Second Advisor: Dra. C. Murni Wahyanti, M.A.


Key Words: English Radio Program, Listening Skills, Eleventh Grade, Action Research.

This final project is an action research. It concerns with the use of RCT FM English radio program for improving listening skills to the $11^{\text {th }}$ grader of senior high school. The sources of the data are the eleventh grader of MAN Purwodadi in the academic year of 2008/2009. In this study, I limit the discussion by stating the problem: to what extent does the RCT FM English radio program (Sunday Morning Cafe) contribute to the improvement of listening skill of students of MAN Purwodadi? What are the difficulties faced by the eleventh grades of senior high school in listening RCT FM English radio program? The aim of the action research is to find out the extent of the students' achievement in listening by the use of an English radio program. It is expected that the result of the study can give contributions to teachers in enriching the teachers' strategy in teaching listening comprehension. Moreover, this study may give an experience to students in improving listening by using English radio program.

There were four steps in conducting this action research: planning, action, observing, and reflecting. In obtaining the data, I carried out three steps. The first step of the activity was giving a pre test. The second step was divided into two activities with an assessment in each activity. In conducting those activities, I adopted English radio program. In the first activity, I taught the students to listen to the English radio program. In the second activity, I did the activity the same as the first one. Finally, the last activity was doing the post test.

Based on the data analysis, it can be found that there is a significant difference in the result of the students' pre and post test. The average achievement of the students was $64 \%$ and $72 \%$ in the post-test. Based on the criterion provided by KKM (Kriteria Ketuntasan Belajar Minimal) of MAN Purwodadi, the result of conducting the action research was successful, because it achieved over 70\%. The main factor affecting this improvement was the students' interest in the English radio program given. It can be found from the field notes that the students were satisfied and enjoyed listening to the English radio program.

Referring to my experience in conducting the action research, I offer several suggestions. First, I suggest the use of English radio program (Sunday Morning Café) to the teachers to teach senior high school students for improving in learning English listening comprehension. Second, hopefully there would be further studies on teaching English using other listening media which apply other techniques.

## APPROVAL

This final project has been approved by the board of examiners of the English Department of Languages and Arts faculty of Semarang State University on March $8^{\text {th }}, 2009$.

Board of examiners

## Chairman



Prof. Dr. H. Rustono, M.Hum
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## Dedication

This final project is proudly dedicated to:
My parents (Bapak Masnuri and Ibu Sujatmi S.Pd), with deepest gratitude for their love and encouragement My beloved Brothers and sisters thank for your full support,

My special thanks go to my love of my live (Khoirida Alfu laila) and to all my friends (SMG plus) who help and give support in my study.


## PERNYATAAN

Dengan ini saya
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Menyatakan dengan ini sesungguhnya bahwa skripsi/ tugas akhir/ final project yang berjudul:

The Use of RCT FM English Radio Program (Sunday Morning Cafe) for Improving Listening Skills to the 11th Grade of Senior High School (The case of the Eleventh Year Students of MAN Purwodadi in the academic year of 2008/2009
yang saya tulis dalam memenuhi salah satu syarat untuk memperoleh gelar sarjana ini adalah benar-benar merupakan karya saya sendiri, yang saya hasilkan setelah melalui penelitian, pembimbingan, diskusi, dan pemaparan/ ujian. Semua kutipan, baik yang langsung maupun yang tidak langsung, baik yang diperoleh dari sumber kepustakaan, wahana elektronik, wawancara langsung, maupun sumber lainnya, telah disertai keterangan ilmiah. Dengan demikian, walaupun tim penguji dan pembimbing penulisan skripsi/ tugas akhir/ final project ini membubuhkan tanda tangan sebagai tanda keabsahannya, seluruh isi karya ilmiah ini tetap menjadi tanggung jawab saya sendiri. Jika kemudian ditemukan ketidakberesan, saya bersedia menerima akibatnya. Demikain, harap pernyataan ini dapat digunakan seperlunya.

Semarang, 15 April 2009
Yang membuat pernyataan,

Nur Andi Ahdiyat
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## CHAPTER I

## INTRODUCTION

### 1.1 Background of the Study

In daily life, people communicate with others from the time they wake up
till they go to bed. Communication is a basic human activity. And the basis of human communication is called language. By means of language, people are able to convey messages and feelings so they can interact to one another. Language gives people a way to communicate easier and helps the people socialize in the society.

Recently English has become the most popular language in the word. It is used not only to communicate with any foreigner coming from any other country but also to do business with other countries as well. Consequently, Indonesian people have to learn English because English language plays a role in the international communication. Due to the fact that English is very important, it is taught as the first foreign language in Indonesia for all levels of school and language courses. English is taught at Elementary School as a local content. It is taught at Junior High School and Senior High School. The program of English teaching in elementary school is different from that of English at Junior High School and Senior High School. There are four basic skills in teaching English, they are listening, speaking, reading, and writing. Listening is one of the skills to be taught. So, in order to make teaching listening to Senior High School students be successful and joyful, we have to
consider some factors such as quality of teachers, students' interest, students' motivation and other supporting factors. Moreover, teachers have to modify the way of their teaching. In this case, teachers can use a method in giving materials by using the media in order to attract students' attention and interest as stated by Hamalik (1993: 18) "Media are used to motivate in learning." Radio as one of the news media, has played an important role in transmitting messages (Effeendy, 1978:57). As a source of information, the radio broadcast has several advantages compared to other news media such as newspaper, magazines, television and the internet. Moreover, radio as one of technology products plays an important role in achieving development of a country.

English radio program can be one of alternative ways to teaching listening.
It is a good method to develop students' ability in listening. The writer is interested in using English radio program as a media to improve the mastery of the students' listening skills. Some listening skills, such as suspending judgment, dealing with biases, and avoiding daydreaming take time to develop because of the mental self-discipline students require. In this study the writer focuses on teaching listening comprehension to the eleventh grades of senior high school by using English radio program called The Sunday Morning Cafe on RCT FM. It is quite clear that listening is the basic skill that the children acquire first before they learn to read or write. Based on this assumption, the researcher considers that to start a foreign language teaching from listening is very important. However, it does not mean that it's a must because, when English as a foreign language starts to be taught, they have learned reading and writing in their own language. But, both skills are considered more difficult
because spelling and pronunciation of their own language is very interesting to seek. To what method is good for teaching listening comprehension to the eleventh grade of senior high school student can be using English radio program (Sunday Morning Cafe). English radio program (Sunday Morning Cafe) will help the students to increase their attention in learning English. It carries messages or information and emphasizes other elements. Thus, English radio program can attract the students' attention in learning listening. Students will feel something new and different

### 1.2 Reasons for Choosing the Topic

RCT FM, a private commercial radio station in Semarang, broadcasts an English conversation program every Sunday morning. The program is to interacting listeners. A number of considerations are proposed to show some importance of conducting this study. They are as follows:
(1) Listening is an important component of a language in conducting communication. So, it is necessary to find suitable techniques and media to draw student's interest and to create cheerful atmosphere in learning listening.
(2) Most of English teachers at Senior High School get some difficulties or problems in teaching listening.
(3) English radio program is a media in teaching English which has benefit in the instructional process, especially, in improving listening skills / accept messages or lesson materials.
(4) The writer wants to help teachers and Senior High School students in learning and improving listening skills since they have difficulties to listen what the teacher has said.

### 1.3 Statements of the Problem

The study is conducted to answer the following problems:
(1) To what extent does the RCT FM English radio program (Sunday Morning Cafe) contribute to the improvement of listening skill of students of MAN Purwodadi?
(2) What are the difficulties faced by the eleventh grades of senior high school in listening English radio program?

### 1.4 Significance of the Study

(1) This study is expected to give contribution to teachers how to enrich the teachers' strategies in teaching listening.
(2) This study is expected to give an experience to students in learning listening by using RCT FM English radio program (Sunday Morning

## UNNES <br> Cafe).

(3) This study is expected to make another way of learning English for Senior High School students by using English radio program.

### 1.5 Limitation of the Study

Observation is held in the teaching and learning process to the eleventh grades of MAN Purwodadi. The study covers the process of teaching listening
comprehension by using the English radio program (Sunday Morning Cafe), the mastery of the material given, and procedure of investigation.

### 1.6 Outline of the Report

Basically, the final project report is divided into five chapters. It is arranged in such a way so that readers who are interested in this topic can easily
know the content of the study. The outline of the study as follow: Chapter I is introduction which contains background of the study, reason for choosing the topic, statement of the problem, object of the study, significant of the study, limitation of the study, out line of the study. Chapter II presents review of related literature, deals with students in senior high school, foreign language learning, definition of listening, teaching listening comprehension, teaching listening to the second graders of senior high school, general concept of media, English radio program, general concept of English radio program, definition of English radio program, the advantages of English radio program applied in teaching listening, applying RCT FM English radio as a media in teaching listening, action research. Chapter III contains method of investigation, data collection, subject of the study, instruments of the study, research activity, the criterion of the assessment. Chapter IV presents description of the result. Chapter V presents conclusion of the study. It also presents the suggestion for the improvement of teaching of English at senior high school.

## CHAPTER II

## REVIEW OF RELATED LITERATURE

In this chapter explains about (1) Students in Senior High School (2)
General Concept of Media (3) General Concept of English Radio Program (4) Applying RCT FM English Radio (Sunday Morning Café) as A Media in Teaching Listening (5) Action Research (6) Previous Studies.

### 2.1 Foreign Language Learning

Since we need to communicate and cooperate with other people from other countries for some different purposes, such as in politics, business, tourism, science, technology, and educational development. Furthermore, now day the world has no limits and the communication technology develops very fast. This condition forces people around the world to have knowledge of a foreign language that is used for international communication. English is different from their native language. They have known the foreign language system but they still make a mistake to use it event they have learn it from elementary school. Students of senior high school use their native language in the society since they speak for the first time, even though they have not known how to use it in the written form. They use their native language without any curiosity in the things they learnt. The students of senior high school are in the age of fifteen to twenty one years. When they are introduced to a foreign language, they may find some similarities and differences between learning their mother tongue and learning the
foreign language. One of the differences is that the native language is used a means of communication at home, school and in the society, while the foreign
language is not used as a means of communication.
Learning of foreign language is not easy as we think. To learn a foreign language, the learner will meet all kinds of learning problem dealing with vocabulary, sound system and how to arrange words into sentences that are quite different from those of the native language. In line with this, Ramelan (1999: 4)

If someone wants to learn a foreign language, he will obviously meet with all kind of learning problem. These difficulties have to do with the learning of the new sound system, the learning of the new vocabulary items, and the learning of the unfamiliar ways of arranging the foreign words into sentences.

Indonesian learners also meet difficulties in learning English, since their native language is quite different from English. Consequently, the learners should have a great attention. They should be serious in learning English because learning language actually needs a total physical, intellectual and emotional

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### 2.2 Definition of Listening

Language has been divided into four main skills, namely listening, speaking, reading, and writing, (Negaraj, 1990: 99). Therefore, English language teaching in Indonesia also involves these four skills. As the four main skills, listening is one of way to learn a new language. By listening, people can study
more about the components of language such as vocabulary, pronunciation, grammar and others. We can use many sources to improve our listening, such as television, tape, radio, and many more. Listening is the key to success for anyone who wants to be an educated person. (2008)

Now let's define what listening is. Listening is an active process because we have to identify and understand what other people saying. (Howati and Dakin, 1974), A speaker's accent or pronunciation, grammar and vocabulary are involved
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it.
We can readily assimilated and respond to the sounds of our won language without conscious effort. We can also hear the sounds of on unknown language, but we can not assimilate them further unlike we have as commanded our ears to distinguish between them and to organize them into words. Listening to a new language as opposed to first hearing that someone is making a peculiar sounds, involves the hearer in adopting his or her exiting mental machinery in learning rules and concept. Dakin, (1973: 13)

Anything we hear, of course can be input (Helgesen and Brown 2007: 6). To go back to our hearing or listening distinction, we hear a lot of things but we do not pay attention or listen to. When we pay attention to what we hear, we begin to process the input. However, to understand listening, we have to know people PERPU\$TAKAAN
process this input. This is what we called bottom-up and top-down processing.
(1) Bottom-up processing

Try to make sense of what we hear by focusing on different parts: the vocabulary, the grammar, sounds, etc. but it is difficult to get good overall parts. And when you try to understand what the speaker say by only looking at the grammar or vocabulary that you do not understand since you are learning a new language or foreign language then you can not focus on what
(2) Top-down processing

It starts with background of knowledge called schema. Schema is classified into two. First, content schema that is general knowledge based on life experience and previous learning. Second, textual scheme that is the knowledge of language and contact that used in the particular situation. Richards and Schemiads (2002: 313) listening comprehension is the process

> of understanding speech in a first or second language.

According to Havmer (2002: 201) listening skills are divided into six skills. They are:
(1) Identifying the topic
(2) Predicting and guessing
(3) Listening for general understanding
(4) Listening for specific information
(5) Listening for detailed
(6) Inferencing

Students can improve their listening skills through a combination of extensive listening and intensive listening. It is important because provides the opportunity to hear voices other that the teacher's enables students to acquire good speaking habits as a result of the spoken English they absorb, and help to improve their pronunciation.

## (1) Extensive Listening

Where the teacher encourages students to choose what they listen to and to do so for pleasure and general language improvement. It usually takes place outside the classroom. The motivational power of such kind of activity increases when students make their own choices about what they are going to listen to.

Materials for extensive listening can be found from many sources. Students can also listen to audio of authentic material, if it is comprehension.
(2) Intensive Listening

Intensive listening using taped material. The advantages of taped material
are: it allows students to hear a variety of different voices apart from just their own teachers. It gives them an opportunity to find a range of different characters where real people talking, however, when taped material contains written dialogues or extracts from plays, they often a wide variety of situations and voices. Moreover, tapes are cheep and machine to play them are inexpensive to.

### 2.3 Teaching Listening Comprehension

Comprehension is often considered to be the first-order of listening, the highest priority of the listener and sometimes the sole purpose of listening. Although the term of listening comprehension is widely used to refer to all aspects of listening, the term comprehension will discussed more specific here. According to Rost (2002:59), comprehension is the process of relating language to concepts in one's memory and to reference in the real world. Comprehension is the sense of understanding what the language used refers to in one's experiences or in the outside world. Complete comprehension then refers to the listener having clean concepts in memory for ever referent used by the speakers.

Richards and Schmitdts (2002: 313) define listening comprehension is the process of understanding speech n a first or second language learning focuses on the role of individual linguistic unit(e.g., phonemes, words,
grammatical structure) as well as the role of the listener's expectations, the situation and context, background knowledge and topic.

In teaching listening there are three main stages that we should construct.
It is the same as we teach listening comprehension. They are:

## (1) Pre-listening

Pre-listening is the warming up activity before the students have the real listening tasks. Pre-listening is how we can help learners achieve the balance between the top-down and bottom-up processing. In many warm-up activities, learners do task to activate their schemata. When learners use both top-down and bottom up processing, this is called interactive processing. Pre-listening activity is most the same as brainstorming in reading or writing. In real life it is usual for people to listen to something without having some idea of what they are going to hear. Rees in his article at teachingenlish.org.uk quoted from Tri (2008:13) explain that pre-listening task aim to deal with:
(1) Setting the context

Give an idea about who is speaking, where and why.
(2) Activating current knowledge
$\mathbb{P} E$ Asking questions related to the context.
(3) Acquiring knowledge

Providing knowledge input to the students.
(4) Activating vocabulary or language

Providing vocabulary found in the context.
(5) Checking or understanding the listening tasks.

Give students plenty of time to understand the main listening comprehension tasks.
(2) Listening Tasks

There are three types of listening activity for beginners' level. They are listening for specific information, listening for gist or global listening intervening.
(3) Post-listening

The range of post listening activities is at as wide as listening tasks themselves. At times, post-listening maybe as simple as checking the
answers to comprehension question

### 2.5 Teaching listening to the Second Graders of Senior High

In every language, listening is importance to delivery messages to the
others in communication so we can express wants, desires, and feeling. Teaching to the second graders of senior high school is considered as teaching adult. In here, listening is important to be mastered first because listening is the fist skill of language skill. For this reason, teacher should pay more attention to the teaching listening to senior high school. Teacher should try to give clear explanations of PERPUSTAKAAN.
|l| the meaning of the word being taught. URNRE

In line with this idea, Bright (1982:5) stated that the teacher should create the enjoyable atmosphere in his teaching and learning process. He said that the enjoyment ought to be the good aims which hopefully will have good effects on education, particularly in school.

Instructional media play a key role in the design and use of systematic instruction. A medium, broadly conceived, is any person, material, or event that establishes conditions which enable the learner to acquire knowledge, skill, and attitudes. Gerlach and Elly (1980:241) say that media will define as the graphic, photographic, electronic, or mechanical means for arresting, processing, and reconstituting visual or verbal information.

Those media are useful for the teacher to achieve the instructional goals of teaching and learning process and they can also be easily found in our daily lives. English radio program as the media in this research includes an audio media that mean contain sound. Through this media, students can hear the characters said and they can study what the word about which are probably not found in their classroom. That is why the writer chooses this media in his final project. 5

### 2.7 General Concept of English Radio Program

2.7.1 Definition of English Radio Program

One of the media that can be used to improve listening skills for senior high school is by using radio. There are several definitions dealing with English radio program: English radio program is radio program that is broadcast in English language. Program that provided by radio station in English to participant that want to practice English by phone, and by short messages service in English
2.7.2 The Advantages of English Radio Program Applied in Teaching

## Listening

An English radio program is a good instrument to help the students in mastering of listening. It has strength as an instructional media to help the senior high school teachers in guiding their students to master listening. An English radio program has some advantages. Here are the advantages: First is as a media to teaching listening. Second, one of alternative media for teachers. Third, make students more interesting in English especially in listening. Fourth, it can be studied at home by not only students but also people that join in that program.

### 2.8 Applying RCT FM English Radio (Sunday Morning Café) as <br> A Media in Teaching Listening

There are so many English radio programs that can be applied in teaching Senior High School students as an instructional media to master Listening skills. In this case the writer uses English radio programs because it is familiar for the Senior High School students. English radio program is a popular Program. It needs a technique and procedure in order to make the teaching activity to be PERPU\$TAKAAN


There are three definitions of action research. The first is by Wallace (1998: 4); action research is a process, which is done by systematically collecting data on teacher's everyday practice and analyzing it in order to come to some decisions about what her future practice should be. The second is by Hopkins (1985: 32) action combines a substantive act with a research procedure; it is action disciplined by inquiry, a personal attempt at understanding whilst engaged in a process of improvement and reform. The last is by Kemmis as quoted by Hopkins (1985:32), he defines that action research is a form of self reflective inquiry under taken by participants in social (including educational) situations in order to improve the rationality and justice of their social or educational situations in which the practice are carried out.

### 2.8.2 Aims of Action Research

Nowadays, our society grows very fast. It also causes the demand on educational service, which must be done by teachers. They have to solve the problems a head of them in education. In solving the problems, they should not use trial and error methods. They should use an appropriate method such as action

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research.
Here are three aims of action research. The first is stated by Hopkins (1985:
41) who writes
......is to give the teachers an introduction to the variety of methods available to them as a means of extending their repertoire of professional behaviours and of encouraging flexibility in personal development. These are methods and approaches that teachers can put into use, which empower them, and make them increasingly competent and autonomous in professional judgment.

The seconds is by Mc Taggart as quoted by David Nunan (1993:63). He


#### Abstract

.... This result is improvement in what happens in the classroom and school, and better articulation and justification of the educational rationale of what goes on. Action research provides a way of working which links theory and practice into the one whole: ideas-in-action.


The third is by Carr and Kemmis as quoted by Mc Niff (1992:2) who state: To improve the rationality and justice of their own social or educational practice, their understanding of these practices, and the situations and institution in which these practice are carried out.

According to those statements above, the writer concludes that action research is one of strategies in improving or increasing the practice of learning. It can be achieved by doing such reflection in order to diagnose condition, then, try it systematically as an alternative way to solve learning problems that is being faced


### 2.8.3 Benefits of Conducting Action Research

Conducting an action research in the classroom has many advantages.
According to Hook (in Richard and Nunan, 1990: 76), there are a lot advantages
for the teacher who conducts an action research. They are:
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(1) The ability to monitor and describe both their own and their pupils' activities and behaviours.
(2) An understanding of instructional methods and materials and their applications.
(3) An awareness of the relationship between classroom behaviours and pupils' growth.
(4) The ability to modify or change their behaviour on the basis of their understanding in the classroom settings.

Talks about the steps in action research means discussing the way to conduct an action research. Kemmis (cited in Hopkins, 1985) quoted from Pedoman teknis Pelaksanaan Classroom Action Research DEPDIKNAS (2003: 6) states that the activities in action research comprise:
(1) Planning

Plan means identify the problem area. Here, teacher as researcher should narrow it down so that it is manageable. Then he has to investigate the problem. He thinks about what might be causing the problems and then tries to find out the solutions by talking to other teachers to get the idea. He also has to think about the evidence that he will collect to decide whether his action is successful or not.
(2) Action

Building the frame work for action research is accomplished by developing an action research plan. In fact, reality can be messy and unpredictable. In carrying out your plan, things will rarely go precisely as expected. Furthermore, in this phase the new insights are likely to arise. These can either be incorporate into your current project or recorded for future research.
(3) Observing

It is time to gather evidence, which he will analyze to decide whether solution was successful or not.
(4) Reflecting

The teacher has to analyze the evidence that he has gathered. Has the problem solved or not? If not, what steps will he tries next? If yes, what problem will
he tries to solve now? At the end of this period of reflection, ideas will usually arise for further cycle of action research.

If in the first cycle or in the first action plan there is no any significance improvement in the result of research, the researcher is able to renew is method by doing the second cycle to get the better result till he go the satisfied one.


Many studies on listening have been conducted. The studies find that there are many aspects that influence to teachers and those researchers who are interested in researching and teaching listening. The aspects are the subject of the study, the material for teaching listening and others. The following are some studies which have been conducted:

Listening is one of primary channel to access the L2. Rost (2002:116) said,
in the late 1960s and early 1970s, applied linguistic begin to recognise that listening was the primary channel by which the learner gains access to L2 'data',
that listening, therefore, serves as the trigger for acquisition.
In order to have a good input of listening, we need a various media.
According Tomlinson in 1998 (Rost 2002:150), multimedia is needed to achieve multi-dimensional representation of the text in order for us to give it meaning and for it to achieve durable impression on our minds".

Audio visual is one of media we can use. Here are some studies that use the audio visual as media. Rost (2002: 151) argued:
... the use of video for listening instruction has been widely discussed among teachers. The most compelling reason for using video is its immediate possibilities for engagement: it can provide high quality, authentic listening and viewing material for a range of teaching purposes.

Sirojun (2008:75) in his studies at eighth grade students MTs Riyadlotul
Ulum Kunir Dempet Demak in the academic year of 2007/2008 said:
After conducting the experiment, I found out the different between the mean scores of the experimental group and control group. The experimental group was taught the video 'fun Learning English' and the control group was taught by using conventional technique. The result was the students who taught by the video 'fun Learning English' had higher scores better than not.

Those studies could increase the quality in teaching listening, but they
need more equipment to play the CD or DVD. Moreover, it needs a special room or place like laboratory. Audio is one of alternative media. We can use audio because easer to play it and we do not need complicated equipment to play it.

However, we just need player to play the audio.

Tri (2008: 47) used audio to conduct his research. He used Hoobastank's
Song untitled The Reason. It Said, there is a significant difference in achievement between the students who are taught listening comprehension using the Hoobastank's song 'the reason' as a media and those who are taught by using conventional technique, the case of eleventh grader of senior high school of SMU

N1 Bojang Pekalongan in the 2007/2008 academic year.
Here is another audio media which we can apply that is radio. It is cheaper and easier than previous media; therefore, the radio can be accessed wherever we are. Margaretha (2001:58) added on her research:

The result of the study is that the most frequently-used is ' I which is classified into content word. This word was the frequently-used word that it depended on two variables: topic and language mastery. After doing the interpretation on the data, the writer finds out that there is a relation between the words often used by listeners of RCT FM Semarang and those in the Birmingham corps. It can be seen in the ranking of words made by the writer that the word ' $a$ ' is in the same position both in the ranking of words made by the writer and those in the Birmingham corpus. (2001: 58).

From thus, the writer can made the reader be sure that many studies on listening have been conducted. It also becomes one of references that can be used

PERPUST/for other researcher to do the research.


## CHAPTER III

## METHODS OF INVESTIGATION

In chapter three explains about Methods of Investigation, Data Collection,
Subject of the Study, Instruments of the Study, Test, The Construction of the Test, Trying out of the Test, Condition of the Test, Discriminating Power (DP), Validity, Reliability, The Difficulty Level, Finding the Mean, Field Notes.

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### 3.1 Data Collection

In conducting the action research, the writer uses several appropriate techniques and methods to gather some information. In carrying out the study, the writer has to collect the data containing some information needed for the research.

Mc Niff (1997: 76) stated:
There is a list of techniques which can be used to gather the evidence in the reconnaissance and monitoring phases of action research. They are field notes, audio tape recording, pupil diaries, interviews and discussions, video tape recording, questionnaires, etc.

In this study, in order to collect the data, the writer will use try out, pretest, post test and field notes. Try-out is used to measure validity, reliability, the difficulty level and discriminating power of the test which was used as instrument for collecting data. The aims of using pre and post test are to know the students' responses during the activities. Meanwhile, the aim using field notes is to have the document about the situation of the class where the writer is conducting the action

### 3.2 Subject of the Study

The research held at MAN Purwodadi. The class taken for this study is the second graders at language class. There are 30 students, consisting of 14 boys and 16 girls in the class. The English material to be conducted to the eleventh graders of senior high school is RCT FM English radio program (Sunday Morning Café).

### 3.3 Instruments of the Study

In final project, the instrument plays an important role, because it is a mean of collecting data. The instruments that will be used to know the extending to which the students have mastered the material given are an English radio program, test and field notes.


### 3.3.1 Test

The type of the test applied in the research was an achievement test. It used to measure the students' improvement in achieving listening comprehension
skill through English radio program. Harris (1969: 2) asserted: "Achievement test scores are used in evaluating the influences of courses of study, teachers teaching methods and factors considered to be significant in educational practice". In addition, the writer marked the test objectively in the form of multiple
choice tests. The choice of the test was based on the following:
(1) Multiple choice test type is economical in term of the number of items that could be answered in a short period of testing time;
(2) Students' test papers could be easily and quickly scored; and
(3) Since the correct answers are limited in number, objective test type will not make examiners have different interpretation of students' test papers.

In addition, the writer also uses three assessment tests type in each treatment activities. One of the purposes is to know how far the students understand lesson material given during the action research.

### 3.3.1.1 The Construction of the Test

As a mentioned above, this research uses an achievement test to measure
the students' achievement in mastering listening comprehension. According to Harris (1969: 3) Achievement tests are used to indicate group or individual progress toward the instructional objective of a specific study or a training

program.
The tests are pre test and post test. The purpose of giving a pre test is to know the students' ability in improving listening ability before conducting this study. Students will be given TOEIC test listening section as the pre test.

## PERPUSTAKAA 3.3.1.2 Trying out of the Test

The purpose in conducting the try out test is to measure the validity and reliability of the test items before applied to be a pre test. All of them are used to decide which items should be tested in making the instrument. The try out held at SMU 1 Godong. There are 100 items of the test. Result of the try out test can be found in appendix.

### 3.3.1.3 Condition of the Test

3.3.1.3.1 Discriminating Power (DP)

The trial test was carried out on Monday, $13^{\text {th }}$ October 2008. In the activity, 26 students were taken as the respondents to do the test consisted 100 multiple choice items. The items consisted of 100 TOEIC tests listening section. After finishing the test, the students' result was collected to be scored. Based on the result, an analysis was made to find out the discriminating power of each item. In order to find the discriminating power (DP) of each item, the writer will select $50 \%$ of the upper group and $50 \%$ of the lower group. The Discriminating Power (DP) of an each item can be calculated by applying the following procedure recommended by Heaton (1975: 174):
(1) Arranged the student's result in rank order of total score and divided them into two groups of equal size (i.e. a half of the top and the other half of the bottom).
(2) Counted the number of the students in the upper and the lower group, who answered correctly.
(3) Subtracted the number of the correct answers in the lower group from the number of the correct answer in the upper group.
(4) Divided the difference by the number of he students in one group.

The procedure of calculating the DP can be expressed by the following

## PERPUSTAKAAN <br> UNNES <br> formula: <br> $\mathrm{H}+\mathrm{L}$ and $\mathrm{H}-\mathrm{L}$ <br> Where

> : number of highs who answer correctly
> : number of lows who answer correctly
> : total number who answer correctly (success)
: How many more highs than lows answered correctly (discrimination) H-L

Generally, the most appropriate and most effective are those who answered correctly by 60 to 70 percent of the class, but on classroom tests this might range 30 to 90 percent. A figure under 30 percent indicates an item is probably too difficult; on over 90 percent that is too easy. (Valette ( 1970:64))

The Discriminating Power classification is as follows:
(1) $\leq$ D $\leq 0.20=$ poor
(2) $0.20 \leq \mathrm{D} \leq 0.40=$ sufficient
(3) $0.40 \leq \mathrm{D} \leq 0.70=$ good $\mathrm{C} E \mathrm{E}$
(4) $0.70 \leq \mathrm{D} \leq 1.00=$ excellent

If D is negative, all of the items are not good. So if all items which have the D value are negative, it will be better to throw them away. The result of the computation of the discriminating power of the try out test can be seen in


A good test has to be valid. Validity refers to the precise measurements of the test. According to Best (1981: 254): A test is said to be valid to degree that it

PERPUSTAl measures what it claims to measure. Moreover, Heaton (1975:153) said:

The validity of the test is extending to which it measures what it is supposed to measure and nothing else. Every test whether it be a short, informal classroom test or a public examination should be as valid as the constructor can make it. The test must aim to provide a true measure of the particular skill knowledge and other skills at the same time.

Harris distinguishes validity into three kinds. They are face validity, content validity and empirical validity (1969:19). Face validity refers to the items
which should look right to examine, test administrators, educators, and the like. Content validity depends on a careful analysis of the language being tested and of the particular course objectives. A test is said to have high content validity if each item used to collect data has relevance to establish criteria and covers representative materials. Harris (1969:20) also explains that empirical validity is of two general kinds, predictive and concurrent validity, depending on whether test scores are correlated with subsequent or concurrent criterion measures. In measuring the validity of the test, the researcher will use the Pearson

Product Moment Formula (Best, John W, 1981: 248-249) as follows:
 for the same students. The validity computation is consulted with the r table of Product Moment by determining the significant level of $5 \%$ and $n$ which is according to the data. If $r_{x y}>r$ table so the instrument of the test is valid. The validity of the try out test can be seen in Appendix.

### 3.3.1.3.3 Reliability

Reliability of the test shows the stability or consistency of the test scores when the test is used.

According to Heaton (1975:155) he stated that:
Reliability is a necessary characteristic of any good test: for it to be valid at all, a test must first be reliable as a measuring instrument. If the test is administered to the same candidates on different occasion (with no language practice work taking place between these occasions), then, to the extent that it produces difference results, it is not reliable. $(1975: 155)$

In short, in order to be reliable, a test must be consistent in its measurement. This research will use the formula of Spearman- Brown as cited by Best (1981: 254) the formula as follow:

$$
r_{11}=\frac{2 r_{1 / 2112}}{1+r_{112112}}
$$


$=$ the correlation of the scores on the halves of the test $r_{1121 / 2}$ PERPUSTAKAAN
The result of the computation of $r_{11}$ can be seen in appendix.

### 3.3.1.3.4 The Difficulty Level

Difficulty level is a number that shows the easy and difficulties of an item.
A good test is a test which is not too easy and difficult. To compute this difficulty level, this research will use the formula:

$$
P=\frac{B}{J S}
$$

Where:
$\mathrm{B}=$ the number of the students who answered the item correctly
$\mathrm{Js}=$ the number of the students in a class The difficulty level of an item as follows:
(1) Item with P 0.00- 0.30 is a difficult item,
(2) Item with P 0.30- 0.70 is a sufficient item
(3) Item with P 0.70-1.00 is an easy item

The result of the computation of difficulty level of the try out test can be seen in appendix.
3.3.1.3.5 Finding the Mean

$\mathbb{P E R P U S T A l =}$ the number of the students
n
((Valette (1970:51))

### 3.3.1.3.6 Field Notes

The purpose of using field notes in this study is to know the activities during the teaching learning process, such as what the students' response while researcher is presenting the material in the classroom, and what are the difficulties faced by the eleventh grades of senior high school in listening comprehension. By using field notes, the writer could systematically keep notes the class situation,
either while the lesson is in progress or immediately after the teaching learning process is conducted.


## CHAPTER IV

## DATA ANALYSIS

### 4.1 Description of the Result

In this chapter the writer would like to present each of the data found from the activities above. It explains the computation of the data analysis and about the result. First, the analysis of try-out score including the validity, reliability, and item analysis of the try-out test. Second, the analysis of the activities is started from pre-test up to post-test. The third is the overall analysis, and the fourth is the field note activity. In order to assess the student's achievement, the writer used evaluation. According to the Department of Education and Culture (Depdikbud) evaluation can be defined as follows:
... is a series activity to gain, analyze, and explain data about a process in teaching and learning done, so systematic and continues that it becomes significant to take decision (Depdikbud, 1994: 2)

From the statement above, it means that evaluation is used to determine the achievement of teaching and learning process.

In order to assess the students' achievement, the writer used criterion evaluation issued by KKM (Kriteria Ketuntasan Belajar Minimal) of MAN Purwodadi. Teaching learning process is successful if it achieved 70 of the KKM.

As mentioned in the previous chapter, the writer used a pre test, a post test, and three assessment tests in each activities, and field notes to collect the data.

### 4.1.1 Analysis of Try-out Test

The purpose in conducting the try out test is to measure the validity and reliability of the test items before applied to be a pre test. All of them are used to decide which items should be tested in making the instrument. The try out held at SMU 1 Godong. There are 100 items of the test.

### 4.1.1.1 Validity

To know the validity of the test, the writer used the person product moment formula. The item was valid if $r_{x y}>$. With $\mathrm{N}=26$, it would be obtained $r$ table $=0,388$.
$r_{x y}=\frac{n \cdot \sum_{x y}-\left(\sum_{x}\right) \cdot\left(\sum_{y}\right)}{\sqrt{\left(n \cdot \sum_{x^{2}}-\left(\sum_{x}\right)^{2}\right) \cdot\left(n \cdot \sum_{y^{2}}-\left(\sum_{y}\right)^{2}\right)}}$
$r_{x y}=$ the coefficient of the correlation between x variable and y variable
$n \quad=$ number of the students
$\sum_{x}=$ sum of the x scores
PERPUSTAKAAN
$\sum_{y} \quad=$ sum of the y scores

$\sum_{x^{2}}=$ sum of the squared $x$ scores
$\sum_{y^{2}}=$ sum of the squared $y$ scores
$\sum_{x y}=$ the sum of the product of each x score with it's corresponding x score for the same students.

From 100 items, it was obtained that 53 were valid, they were $8,10,11$, $12,15,16,17,18,19,21,22,23,24,26,27,32,34,35,36,37,41,42,43,44,46$, $47,48,51,52,53,57,58,61,65,67,68,69,70,71,72,73,74,75,76,77,79,82$, $90,93,94,98,99,100$; and 47 items were invalid, they are $1,2,3,4,5,6,7,9,13$, $14,20,25,28,29,30,31,33,38,39,40,45, ~ 49,50,54,55,56,59,60,62,63$, $64,66,78,80,81,83,84,85,86,87,88,89,91,92,95,96,97$. The complete computation can be seen in appendix.

### 4.1.1.2 Reliability

A god test must be valid and reliable. Reliability of the test shows the stability or consistency of the test scores when the test is used. The writer was used the formula of Spearman- Brown.
$r_{11}=\frac{2 r_{1 / 2112}}{1+r_{112112}}$
$r_{11}=$ the instrument reliability
$r_{1121 / 2}=$ the correlation of the scores on the halves of the test

The result of the computation of $r_{11}$ can be seen in appendix.

### 4.1.1.3 Item Analysis

The index of item difficulty shows how easy or difficult the item is. If the index of difficulty is high, an item will be considered as an easy item. If it is low, it will be considered as difficult. From the computation of the item difficulty it was found that 96 items were medium, and 4 items were difficult. (see appendix)

### 4.1.1.4 Discrimination Power

To know the level of Discriminating Power of the items, the writer will consult score D that will be gained from the computation.

The procedure of calculating the DP can be expressed by the following formula:

$$
\mathrm{H}+\mathrm{L} \text { and } \mathrm{H}-\mathrm{L}
$$

Where
H : number of highs who answer correctly
L : number of lows who answer correctly
$\mathrm{H}+\mathrm{L}$ : total number who answer correctly (success)
$\mathrm{H}-\mathrm{L}$ : How many more highs than lows answered correctly (discrimination)
Generally, the most appropriate and most effective are those who answered correctly by 60 to 70 percent of the class, but on classroom tests this might range 30 to 90 percent. A figure under 30 percent indicates an item is probably too difficult; on over 90 percent that is too easy. (Valette ( 1970:64)) The Discriminating Power classification is as follows:
(5) $\leq \mathrm{D} \leq 0.20=$ poor
(6) $0.20 \leq \mathrm{D} \leq 0.40=$ sufficient $\mathbb{R} P U S T A K A A N$
(7) $0.40 \leq \mathrm{D} \leq 0.70=$ good

d. $70 \leq \mathrm{D} \leq 1.00=$ excellent

If D is negative, all of the items are not good. So if all items which have the D value are negative, it will be better to throw them away. The result of the computation of the discriminating power of the try out test can be seen in Appendix.

### 4.1.1.5 Finding the Mean

The formula used for computing the mean is as follow:
$\mathrm{m}=\frac{\sum s}{n}$
Where
$\mathrm{m} \quad=$ the mean
$\sum s=$ the sum of item scores
n $\quad=$ the number of the students ((Valette (1970:51))

### 4.1.2 The Analysis of the Pre Test

The pre-test was conducted on Tuesday 28 October 2008. It was followed by the 30 students. The test can be found in appendix. In here, the writer gave 50 multiple choice items. The purpose of this test was to check whether the students were familiar and able to do the tests. The test was consumed 30 minutes. The result can be seen in appendix.

The average of the students result in the pre test was 1930: $30=64 \%$. According to the criterion provided by KKM (Kriteria Ketuntasan Belajar Minimal) of MAN Purwodadi, this result was really lower than the criterion. The writer concluded that the students were not familiar with the words presented. Thus, the treatments in each activity were necessary to improve the students' result.

### 4.1.3 The Analysis of the Action

### 4.1.3.1 The Analysis of the First Step of the Activity

The first activity was conducted on Tuesday, $4^{\text {th }}$ November 2008. Before conducting the teaching activity, the writer had prepared media (cassette player) very well. Hereafter, the writer checked attendance list to make sure all students had been present. The writer then played the recorded of English radio program. The aim was to interest them in the class activity. He asked them to pay attention because in the end of this activity, the writer would give a test.

After listening the recorded (English radio program), the writer tried to discuss about the materiel. During this activity, some of the students did not listen to his explanation. Therefore, most of them were listening carefully and seriously. Hence, the writer gave motivation to ensure that seeing listening English radio program is more than entertainment and it could take some lesson from it.

Next, the writer asked some questions to them. In order to attain the lesson material, the writer played the record for about 15 minutes. In the end of the activity, the writer gave an assessment test in order to know how far they had mastered the lesson given. It was listening test (Question - response) consisting 10 items. The result of the test can be seen in appendix.

The average of the students result in the $1^{\text {st }}$ activity was 2080: $30=69 \%$. According to the criterion provided by KKM (Kriteria Ketuntasan Belajar Minimal) of MAN Purwodadi, learning process can be said to be successful if students' achievement is $70 \%$ and above.

### 4.1.3.2 The Analysis of the Second Step of the Activity

The second activity was conducted on Tuesday, $18^{\text {th }}$ November 2008. The activity was to listening English radio program. All students had been present in the second activity. They were 30 students. First of all, he reviewed the last material for about 5 minutes to help the students remembered the lesson. Before playing the recorded of English radio program, the writer discussed about what was the material about. Moreover, he also asked each student to write down on their books what they heard on. Most of the students were enthusiastic.

Before played the record, the writer asked the students to listen carefully and paid attention on it. The record was played for about 20 minutes. It was the same as the first activity but continuance other part of the record. The writer asked them to write down what they heard if necessary.

As the first activity conducted, the writer renewed some key words related to the topic and explained clearly, because some students might be confused about the material. He wrote down on the whiteboard. The students were carefully listening what he talked about. Then the writer plays the record for the last time.

In the end of the activity, in order to check the students' ability to attain the lesson, the writer gave an assessment test. It was listening test (Question response) consisting 10 items. The result of the test in the second activity can be seen in the appendix.

The average of the students result in the $2^{\text {nd }}$ activity was $2170: 30=72 \%$. According to the criterion provided by KKM (Kriteria Ketuntasan Belajar Minimal) of MAN Purwodadi, learning process can be said to be successful if
students' achievement is $70 \%$ and above. If we compare the previous activity, there was any significance difference between the first activity (69\%) and the second activity ( $72 \%$ ).

### 4.1.4 The Analysis of the Post Test

A post test was given to the students after second treatments accomplished. It was conducted on Tuesday, $25^{\text {th }}$ November 2008 and followed by 30 students. In this activity, the writer gave 30 minutes to the students for doing the test. The test items were similar to the pre test items. The writer asked the students not to cheat. The result can be seen in the appendix.

The average achievement of the students result in the post test was $2158=$ $72 \%$. The score was higher than the pre test that was only $64 \%$. According to the criterion provided by KKM (Kriteria Ketuntasan Belajar Minimal) of MAN Purwodadi, this result was higher than the criterion. The writer concluded that the students were able to done the test and understand the material they have got. Thus, the treatments in each activity were not necessary because the result was higer than the criterion provided by KKM (Kriteria Ketuntasan Belajar Minimal) of MAN Purwodadi.

### 4.1.5 Field Notes

The purpose of using field notes in this study is to know the activities during the teaching learning process, such as what the students' response while the researcher is presenting the material in the classroom, and what are the
difficulties faced by the eleventh grades of senior high school in listening comprehension. By using field notes, the writer could systematically keep notes the class situation, either while the lesson is in progress or immediately after the teaching learning process is conducted.

From taking the field note, the writer found that the activities during the teaching learning process went well. At the first time, the students were complaining the number of the test at pre-test. There were 50 test items. From the time being, there were no difficulties faces by the writer or the students. The students enjoyed the activity till the end. Most of them were enthusiastic about the media that the writer use because they didn't know that there was a radio station broadcast an English program of a radio station broadcast. Meanwhile, other situation of each cycle (Step of the Activity) would be presented here.

### 4.1.5.1 First Step of the Activity

The first activity was conducted on Tuesday, $4^{\text {th }}$ November 2008. The aim was to interest the students in class activity. In the end of the activity, the writer gave an assessment test in order to know how far they had mastered the lesson PERPUSTAKAAN given. It was listening test (Question - response). The writer found some responses that students did when they are being observed. They are positive and negative response. Each response will be divided into several parts,

### 4.1.5.1.1 Positive Responses:

There are some positive responses that the writer got from the first activity, for example:
(1) Most of students paid attention to the lesson that teacher (the researcher) delivered.
(2) Some of them ask to the teacher about the lesson they have heard.
(3) Most of students gave good response with the media that teacher had given.
(4) All the students did the tasks that the teacher gave to them.

### 4.1.5.1.2 Negative Responses:

Negative responses that students did also written by the writer, they are:
(1) Less of students didn't pay attention to the teacher (the researcher).
(2) Some of them played around in the class.
(3) Some student saw the other students' task.
(4) Less of students didn't give good respond with the media teacher gave.

The writer observed that the students in the teaching learning process did not only learn new media in listening, but also they could study the words the radio's announcer said. Most of them were active in the classroom. They were satisfied and enjoyed to listening the English radio program that was given by the researcher. Besides, they look happy when doing the activity. They always follow the researcher's direction given to them.

The room that the writer used was English laboratory so the material delivered was easy to learn. Moreover, it was more comfortable to them to study English radio program. The difficulties faced by the students on the first activity were the sound of the record was not clear enough, unfamiliar words the
announcer said, limited vocabularies, and the difference of students' comprehension about the material.

### 4.1.5.2 Second Step of the Activity

The second activity was conducted on Tuesday, $18^{\text {th }}$ November 2008. The activity was to listening English radio program. In the end of the activity, the writer gave an assessment test in order to know how far they had mastered the lesson given.

In this activity the writer used the same method like the first activity. In the second activity, the lesson went well because the students were already costumed with the activity and media that it used. There was no difficulty faced by the students in the second activity.

### 4.1.5.2.1 Positive Responses:

Positive responses that students did also written by the writer in the second activity, they are:
(1) Most of students paid attention to the lesson that the teacher delivered.
(2) Some of them asked to the teacher about the lesson they have heard.
(3) Most of students gave good respond (happy) with the media that teacher gave.
(4) All the students did the tasks that the teacher gave to them.

### 4.1.5.2.2 Negative Responses:

There are some Negative responses that the writer got from the second activity, for example:
(1) Less of students didn't pay attention to the teacher.
(2) Some of them still talked each others.
(3) Some students saw other students' works that was done by others students.
(4) Less of students gave bad response with the media that teacher gave.

## CHAPTER V

## CONCLUSIONS AND SUGGESTIONS

The end of the study is giving conclusions of the study and suggestion for the reader and who are interested in the study.

### 5.1 Conclusions

The results of the analysis in the previous chapter the writer conclude that:
(1) The students' mastery of listening comprehension and daily activities during the teaching and learning activities by using the RCT FM English radio program (Sunday Morning Café) was good. It was supported by the significance different result of the Pre test $(64 \%)$ and the result of the Post test (72\%).
(2) Most of the students said that the activities using English radio program could help them in mastering listening. Besides, the English radio program can increase the students' attention in learning listening.
(3) The students difficulties faced in the study were the non-native author, unrecognized words, and the use of mother tongue language by the participant.

### 5.2 Suggestions

Based on the conclusions above, the writer would like to offer some suggestions:
(1) I suggest the teacher to use English radio program (Sunday Morning Café) teach senior high school students to improved learning English listening comprehension
(2) The use of English radio program (Sunday Morning Café) in teaching listening comprehension should be related to topic material.
(3) A teacher should be smart in creating conducive situation by applying other teaching strategies, so that the class becomes alive.
(4) Hopefully there would be further studies on teaching English using other listening media which apply other techniques.

Finally, the writer wants to say that the use of English radio program (Sunday Morning Café) in teaching listening is not the best one, but it can be one of alternative way to the teacher to teach listening.

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## List of the Students’ Try Out

| No | Name |
| :---: | ---: |
| 1 | Achir Joko Yulianto |
| 2 | Aditya Eka Afiryanto |
| 3 | Andini Sulustyawati |
| 4 | Aprilia Mega Puspita Dewi |
| 5 | Azmita Diana. R |
| 6 | Devi Erma. S |
| 7 | Dwi Haryanto |
| 8 | Febrina. N |
| 9 | Febrina .N |
| 10 | Fitri .W |
| 11 | Fransiska D. E |
| 12 | Gita Neppy .S |
| 13 | Hendy Chandra |
| 14 | Imam Agus .S |
| 15 | Joan Vivi. M |
| 16 | Lisdariati |
| 17 | Melsa .M |
| 18 | Yusup. H |
| 19 | MUH. Fadly |
| 20 | Nawang Wulan |
| 21 | Oktavia dewi .s |
| 22 | Retno. W |
| 23 | Trina Setyawan |
| 24 |  |

PERPUSTAKAAN

## List of the Students in Action Research

| No | Name |
| :---: | ---: |
| 1 | Abda'u Asip |
| 2 | Ana Haryani |
| 3 | Andi Setiawan |
| 4 | Dzakwan Ulwan |
| 5 | Farikha Mina Mufida |
| 6 | Ana Nurjanah |
| 7 | Fitri Sugiyanti |
| 8 | Istrianah |
| 9 | Ika Qibtiyah |
| 10 | Kurniati |
| 11 | Muhamad Chairul Anam |
| 12 | Maya Puji Janasti |
| 13 | Puji Lestari |
| 14 | Nurul Hidayah |
| 15 | Nur Kolik |
| 16 | Putri Dwi Ayu Cahyani |
| 17 | Saikul Hadi |
| 18 | Saiful Amri |
| 19 | Yuni Asmawati |
| 20 | Wahyu Abdul Ghoni |
| 21 | Saifudin Zuhri |
| 22 | Yudhiyanto Pranoto |
| 23 | Sefti Mulyasari |
| 24 | Sofwatun Nisa |
| 25 | Umi Sarofah |
| 26 | Nur Aminatulkholifah |
| 27 | Adelia Lispriyanti |
| 28 | PIERTP |
| 29 |  |

ANALYSIS OF VALIDITY,RELIABILITY,DESCRIMITATING POWER,DIFFICULTY INDEX

| No. | Kode.Resp. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | R-04 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| 2 | R-12 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 3 | R-09 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 4 | R-17 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| 5 | R-01 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| 6 | R-10 | 1 | 0 | 1 | 1 | 1 | 0 | 0 |
| 7 | R-21 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 8 | R-11 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| 9 | R-19 | 1 | 1 | 0 | 0 | 1 | 0 | 1 |
| 10 | R-03 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| 11 | R-20 | 1 | 1 | 0 | 1 | 0 | 1 | 1 |
| 12 | R-02 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| 13 | R-06 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 14 | R-07 | 0 | 1 | 0 | 1 | 1 | 1 | 0 |
| 15 | R-25 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 16 | R-13 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| 17 | R-24 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| 18 | R-23 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 19 | R-16 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 20 | R-14 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| 21 | R-05 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 22 | R-08 | 1 | 1 | 0 | 1 | 1 | 0 | 0 |
| 23 | R-15 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| 24 | R-18 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |
| 25 | R-22 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| 26 | R-26 | 1 | 1 | 1 | 1 | 0 | 1 | 0 |
|  | $\Sigma \mathrm{X}$ | 18 | 14 | 16 | 16 | 12 | 15 | 15 |
|  | $\sum \mathrm{X}^{2}$ | 18 | 14 | 16 | 16 | 12 | 15 | 15 |
|  | $\Sigma X Y$ | 1144 | 907 | 1011 | 1039 | 788 | 937 | 1014 |
|  | $r_{\text {xy }}$ | 0,109 | 0,163 | 0,062 | 0,203 | 0,192 | 0,003 | 0,386 |
|  | Criteria | Invalid | Invalid | Invalid | Invalid | Invalid | Invalid | Invalid |
| Level | P | 0,43 | 0,33 | 0,38 | 0,38 | 0,29 | 0,36 | 0,36 |
| Difficulty | Criteria | Medium | Medium | Medium | Medium | Difficult | Medium | Medium |
|  | BA | 10 | 8 | 9 | 9 | 7 | 8 | 10 |
|  | BB | 8 | 6 | 7 | 7 | 5 | 7 | 5 |
|  | JA | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
|  | JB | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
|  | D | 0,15 | 0,15 | 0,15 | 0,15 | 0,15 | 0,08 | 0,38 |
|  | Criteria | Poor | Poor | Poor | Poor | Poor | Poor | Sufficient |
|  | p | 0,056 | 0,071 | 0,063 | 0,063 | 0,083 | 0,067 | 0,067 |
|  | q | 0,944 | 0,929 | 0,938 | 0,938 | 0,917 | 0,933 | 0,933 |
|  | pq | 0,052 | 0,066 | 0,059 | 0,059 | 0,076 | 0,062 | 0,062 |
|  | $\Sigma \mathrm{pq}$ | 5,870 |  |  |  |  |  |  |
|  | $\mathrm{s}^{2}$ | 2.548.938 |  |  |  |  |  |  |
|  | $\mathrm{r}_{11}$ | 0,96 | $\mathrm{r}_{11}>\mathrm{r}_{\text {tabel }}=$ | Reliabel |  |  |  |  |
| Criteria |  | Unused | Unused | Unused | Unused | Unused | Unused | Unused |


| 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| 15 | 16 | 15 | 18 | 15 | 17 | 21 | 15 | 18 | 19 |
| 15 | 16 | 15 | 18 | 15 | 17 | 21 | 15 | 18 | 19 |
| 1044 | 1019 | 1022 | 1215 | 1039 | 1068 | 1335 | 1045 | 1199 | 1273 |
| 0,535 | 0,102 | 0,426 | 0,486 | 0,510 | 0,035 | 0,150 | 0,540 | 0,401 | 0,482 |
| Valid | Invalid | Valid | Valid | Valid | Invalid | Invalid | Valid | Valid | Valid |
| 0,36 | 0,38 | 0,36 | 0,43 | 0,36 | 0,40 | 0,50 | 0,36 | 0,43 | 0,45 |
| Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium |
| 10 | 9 | 10 | 12 | 10 | 9 | 11 | 10 | 11 | 12 |
| 5 | 7 | 5 | 6 | 5 | 8 | 10 | 5 | 7 | 7 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 0,38 | 0,15 | 0,38 | 0,46 | 0,38 | 0,08 | 0,08 | 0,38 | 0,31 | 0,38 |
| Sufficient | Poor | Sufficient | Good | Sufficient | Poor | Poor | Sufficient | Sufficient | Sufficient |
| 0,067 | 0,063 | 0,067 | 0,056 | 0,067 | 0,059 | 0,048 | 0,067 | 0,056 | 0,053 |
| 0,933 | 0,938 | 0,933 | 0,944 | 0,933 | 0,941 | 0,952 | 0,933 | 0,944 | 0,947 |
| 0,062 | 0,059 | 0,062 | 0,052 | 0,062 | 0,055 | 0,045 | 0,062 | 0,052 | 0,050 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Used | Unused | Used | Used | Used | Unused | Unused | Used | Used | Used |


| 2799 | 526 | 2227 | 2376 | 2669 | 177 | 627 | 2825 | 1960 | 2261 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 27337365 | 26508960 | 27337365 | 23858064 | 27337365 | 25349193 | 17396505 | 27337365 | 23858064 | 22035573 |
|  |  |  |  |  |  |  |  |  |  |
| 5228,5146 | 5148,6853 | 5228,5146 | 4884,4717 | 5228,5146 | 5034,7982 | 4170,9118 | 5228,5146 | 4884,4717 | 4694,2063 |


| 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 |
| 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | 16 | 18 | 18 | 17 | 17 | 17 | 18 | 17 | 17 |
| 15 | 16 | 18 | 18 | 17 | 17 | 17 | 18 | 17 | 17 |
| 1048 | 1084 | 1170 | 1199 | 1150 | 1155 | 1159 | 1189 | 1164 | 1160 |
| 0,555 | 0,430 | 0,247 | 0,401 | 0,459 | 0,484 | 0,505 | 0,348 | 0,531 | 0,510 |
| Valid | Valid | Invalid | Valid | Valid | Valid | Valid | Invalid | Valid | Valid |
| 0,36 | 0,38 | 0,43 | 0,43 | 0,40 | 0,40 | 0,40 | 0,43 | 0,40 | 0,40 |
| Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium |
| 10 | 10 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 5 | 6 | 7 | 7 | 6 | 6 | 6 | 7 | 6 | 6 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 0,38 | 0,31 | 0,31 | 0,31 | 0,38 | 0,38 | 0,38 | 0,31 | 0,38 | 0,38 |
| Sufficient | Sufficient | Sufficient | Sufficient | Sufficient | Sufficient | Sufficient | Sufficient | Sufficient | Sufficient |
| 0,067 | 0,063 | 0,056 | 0,056 | 0,059 | 0,059 | 0,059 | 0,056 | 0,059 | 0,059 |
| 0,933 | 0,938 | 0,944 | 0,944 | 0,941 | 0,941 | 0,941 | 0,944 | 0,941 | 0,941 |
| 0,062 | 0,059 | 0,052 | 0,052 | 0,055 | 0,055 | 0,055 | 0,052 | 0,055 | 0,055 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Used | Used | Unused | Used | Used | Used | Used | Unused | Used | Used |


| 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |
| 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 |
| 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | 19 | 11 | 14 | 17 | 18 | 17 | 17 | 15 | 17 |
| 15 | 19 | 11 | 14 | 17 | 18 | 17 | 17 | 15 | 17 |
| 979 | 1230 | 738 | 942 | 1144 | 1176 | 1166 | 1143 | 1035 | 1177 |
| 0,212 | 0,243 | 0,255 | 0,335 | 0,428 | 0,279 | 0,541 | 0,422 | 0,491 | 0,598 |
| Invalid | Invalid | Invalid | Invalid | Valid | Invalid | Valid | Valid | Valid | Valid |
| 0,36 | 0,45 | 0,26 | 0,33 | 0,40 | 0,43 | 0,40 | 0,40 | 0,36 | 0,40 |
| Medium | Medium | Difficult | Medium | Medium | Medium | Medium | Medium | Medium | Medium |
| 9 | 11 | 7 | 9 | 11 | 11 | 11 | 11 | 10 | 11 |
| 6 | 8 | 4 | 5 | 6 | 7 | 6 | 6 | 5 | 6 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 0,23 | 0,23 | 0,23 | 0,31 | 0,38 | 0,31 | 0,38 | 0,38 | 0,38 | 0,38 |
| Sufficient | Sufficient | Sufficient | Sufficient | Sufficient | Sufficient | Sufficient | Sufficient | Sufficient | Sufficient |
| 0,067 | 0,053 | 0,091 | 0,071 | 0,059 | 0,056 | 0,059 | 0,059 | 0,067 | 0,059 |
| 0,933 | 0,947 | 0,909 | 0,929 | 0,941 | 0,944 | 0,941 | 0,941 | 0,933 | 0,941 |
| 0,062 | 0,050 | 0,083 | 0,066 | 0,055 | 0,052 | 0,055 | 0,055 | 0,062 | 0,055 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Unused | Unused | Unused | Unused | Used | Unused | Used | Used | Used | Used |


| 1109 | 1143 | 1335 | 1770 | 2153 | 1362 | 2725 | 2127 | 2565 | 3011 |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 27337365 | 22035573 | 27337365 | 27834408 | 25349193 | 23858064 | 25349193 | 25349193 | 27337365 | 25349193 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 5228,5146 | 4694,2063 | 5228,5146 | 5275,8324 | 5034,7982 | 4884,4717 | 5034,7982 | 5034,7982 | 5228,5146 | 5034,7982 |  |


| 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
| 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 13 | 9 | 13 | 16 | 17 | 18 | 17 | 13 | 16 | 17 |
| 13 | 9 | 13 | 16 | 17 | 18 | 17 | 13 | 16 | 17 |
| 816 | 583 | 853 | 1087 | 1153 | 1206 | 1146 | 854 | 1076 | 1178 |
| 0,022 | 0,109 | 0,204 | 0,446 | 0,474 | 0,439 | 0,438 | 0,209 | 0,390 | 0,603 |
| Invalid | Invalid | Invalid | Valid | Valid | Valid | Valid | Invalid | Valid | Valid |
| 0,31 | 0,21 | 0,31 | 0,38 | 0,40 | 0,43 | 0,40 | 0,31 | 0,38 | 0,40 |
| Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium |
| 7 | 5 | 7 | 10 | 11 | 11 | 11 | 7 | 10 | 11 |
| 6 | 4 | 6 | 6 | 6 | 7 | 6 | 6 | 6 | 6 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 0,08 | 0,08 | 0,08 | 0,31 | 0,38 | 0,31 | 0,38 | 0,08 | 0,31 | 0,38 |
| Poor | Poor | Poor | Sufficient | Sufficient | Sufficient | Sufficient | Poor | Sufficient | Sufficient |
| 0,077 | 0,111 | 0,077 | 0,063 | 0,059 | 0,056 | 0,059 | 0,077 | 0,063 | 0,059 |
| 0,923 | 0,889 | 0,923 | 0,938 | 0,941 | 0,944 | 0,941 | 0,923 | 0,938 | 0,941 |
| 0,071 | 0,099 | 0,071 | 0,059 | 0,055 | 0,052 | 0,055 | 0,071 | 0,059 | 0,055 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Unused | Unused | Unused | Used | Used | Used | Used | Unused | Used | Used |

$\begin{array}{llllllllll}117 & 551 & 1079 & 2294 & 2387 & 2142 & 2205 & 1105 & 2008 & 3037\end{array}$
$\begin{array}{lllllllllll}28000089 & 25349193 & 28000089 & 26508960 & 25349193 & 23858064 & 25349193 & 28000089 & 26508960 & 25349193\end{array}$ $5291,5115034,79825291,511 \quad 5148,6853 \quad 5034,79824884,4717 \quad 5034,7982 \quad 5291,511 \quad 5148,6853 \quad 5034,7982$

| 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |
| 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 |
| 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 17 | 14 | 20 | 15 | 17 | 16 | 15 | 16 | 17 | 17 |
| 17 | 14 | 20 | 15 | 17 | 16 | 15 | 16 | 17 | 17 |
| 1139 | 902 | 1272 | 1037 | 1172 | 1080 | 957 | 1039 | 1111 | 1163 |
| 0,402 | 0,138 | 0,137 | 0,501 | 0,572 | 0,410 | 0,103 | 0,203 | 0,257 | 0,526 |
| Valid | Invalid | Invalid | Valid | Valid | Valid | Invalid | Invalid | Invalid | Valid |
| 0,40 | 0,33 | 0,48 | 0,36 | 0,40 | 0,38 | 0,36 | 0,38 | 0,40 | 0,40 |
| Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium |
| 11 | 7 | 11 | 10 | 11 | 11 | 8 | 9 | 10 | 11 |
| 6 | 7 | 9 | 5 | 6 | 5 | 7 | 7 | 7 | 6 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 0,38 | 0,00 | 0,15 | 0,38 | 0,38 | 0,46 | 0,08 | 0,15 | 0,23 | 0,38 |
| Sufficient | Poor | Poor | Sufficient | Sufficient | Good | Poor | Poor | Sufficient | Sufficient |
| 0,059 | 0,071 | 0,050 | 0,067 | 0,059 | 0,063 | 0,067 | 0,063 | 0,059 | 0,059 |
| 0,941 | 0,929 | 0,950 | 0,933 | 0,941 | 0,938 | 0,933 | 0,938 | 0,941 | 0,941 |
| 0,055 | 0,066 | 0,048 | 0,062 | 0,055 | 0,059 | 0,062 | 0,059 | 0,055 | 0,055 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Used | Unused | Unused | Used | Used | Used | Unused | Unused | Unused | Used |


| 2023 | 730 | 612 | 2617 | 2881 | 2112 | 537 | 1046 | 1295 | 2647 |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 25349193 | 27834408 | 19881720 | 27337365 | 25349193 | 26508960 | 27337365 | 26508960 | 25349193 | 25349193 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 5034,7982 | 5275,8324 | 4458,8922 | 5228,5146 | 5034,7982 | 5148,6853 | 5228,5146 | 5148,6853 | 5034,7982 | 5034,7982 |  |


| 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 |
| 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 |
| 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 |
| 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 |
| 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 17 | 12 | 13 | 17 | 13 | 16 | 15 | 17 | 18 | 17 |
| 17 | 12 | 13 | 17 | 13 | 16 | 15 | 17 | 18 | 17 |
| 1171 | 807 | 828 | 1149 | 831 | 1044 | 963 | 1143 | 1196 | 1148 |
| 0,567 | 0,285 | 0,081 | 0,453 | 0,096 | 0,228 | 0,133 | 0,422 | 0,385 | 0,448 |
| Valid | Invalid | Invalid | Valid | Invalid | Invalid | Invalid | Valid | Invalid | Valid |
| 0,40 | 0,29 | 0,31 | 0,40 | 0,31 | 0,38 | 0,36 | 0,40 | 0,43 | 0,40 |
| Medium | Difficult | Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium |
| 11 | 7 | 7 | 11 | 7 | 9 | 8 | 11 | 11 | 11 |
| 6 | 5 | 6 | 6 | 6 | 7 | 7 | 6 | 7 | 6 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 0,38 | 0,15 | 0,08 | 0,38 | 0,08 | 0,15 | 0,08 | 0,38 | 0,31 | 0,38 |
| Sufficient | Poor | Poor | Sufficient | Poor | Poor | Poor | Sufficient | Sufficient | Sufficient |
| 0,059 | 0,083 | 0,077 | 0,059 | 0,077 | 0,063 | 0,067 | 0,059 | 0,056 | 0,059 |
| 0,941 | 0,917 | 0,923 | 0,941 | 0,923 | 0,938 | 0,933 | 0,941 | 0,944 | 0,941 |
| 0,055 | 0,076 | 0,071 | 0,055 | 0,071 | 0,059 | 0,062 | 0,055 | 0,052 | 0,055 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Used | Unused | Unused | Used | Unused | Unused | Unused | Used | Unused | Used |


| 2855 | 1506 | 429 | 2283 | 507 | 1176 | 693 | 2127 | 1882 | 2257 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 25349193 | 27834408 | 28000089 | 25349193 | 28000089 | 26508960 | 27337365 | 25349193 | 23858064 | 25349193 |
|  |  |  |  |  |  |  |  |  |  |
| 5034,7982 | 5275,8324 | 5291,511 | 5034,7982 | 5291,511 | 5148,6853 | 5228,5146 | 5034,7982 | 4884,4717 | 5034,7982 |


| 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 |
| 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |
| 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | 17 | 17 | 15 | 17 | 17 | 17 | 15 | 16 | 18 |
| 17 |  |  |  |  |  |  |  |  |  |


| 2725 | 2179 | 2751 | 2331 | 2205 | 2257 | 2699 | 2097 | 2138 | 2402 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 25349193 | 25349193 | 25349193 | 27337365 | 25349193 | 25349193 | 25349193 | 27337365 | 26508960 | 23858064 |
|  |  |  |  |  |  |  |  |  |  |
| 5034,7982 | 5034,7982 | 5034,7982 | 5228,5146 | 5034,7982 | 5034,7982 | 5034,7982 | 5228,5146 | 5148,6853 | 4884,4717 |


| 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 |
| 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 |
| 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
| 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 13 | 15 | 16 | 13 | 17 | 12 | 17 | 20 | 19 | 18 |
| 19 |  |  |  |  |  |  |  |  |  |


| 1429 | 2409 | 682 | 247 | 2101 | 414 | 567 | -168 | 363 | 1050 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 22035573 | 27337365 | 26508960 | 28000089 | 25349193 | 27834408 | 25349193 | 19881720 | 22035573 | 23858064 |
| 4694,2063 | 5228,5146 | 5148,6853 | 5291,511 | 5034,7982 | 5275,8324 | 5034,7982 | 4458,8922 | 4694,2063 | 4884,4717 |


| 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 |
| 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 |
| 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 |
| 19 | 17 | 15 | 17 | 18 | 16 | 18 | 16 | 14 | 15 |
| 19 | 17 | 15 | 17 | 18 | 16 | 18 | 16 | 14 | 15 |
| 1189 | 1069 | 1021 | 1097 | 1136 | 1095 | 1225 | 1032 | 882 | 949 |
| 0,016 | 0,040 | 0,421 | 0,185 | 0,066 | 0,486 | 0,540 | 0,168 | 0,040 | 0,063 |
| Invalid | Invalid | Valid | Invalid | Invalid | Valid | Valid | Invalid | Invalid | Invalid |
| 0,45 | 0,40 | 0,36 | 0,40 | 0,43 | 0,38 | 0,43 | 0,38 | 0,33 | 0,36 |
| Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium | Medium |
| 10 | 9 | 10 | 10 | 10 | 11 | 11 | 10 | 8 | 8 |
| 9 | 8 | 5 | 7 | 8 | 5 | 7 | 6 | 6 | 7 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 0,08 | 0,08 | 0,38 | 0,23 | 0,15 | 0,46 | 0,31 | 0,31 | 0,15 | 0,08 |
| Poor | Poor | Sufficient | Sufficient | Poor | Good | Sufficient | Sufficient | Poor | Poor |
| 0,053 | 0,059 | 0,067 | 0,059 | 0,056 | 0,063 | 0,056 | 0,063 | 0,071 | 0,067 |
| 0,947 | 0,941 | 0,933 | 0,941 | 0,944 | 0,938 | 0,944 | 0,938 | 0,929 | 0,933 |
| 0,050 | 0,055 | 0,062 | 0,055 | 0,052 | 0,059 | 0,052 | 0,059 | 0,066 | 0,062 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Unused | Unused | Used | Unused | Unused | Used | Used | Unused | Unused | Unused |


| 77 | 203 | 2201 | 931 | 322 | 2502 | 2636 | 864 | 210 | 329 |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 22035573 | 25349193 | 27337365 | 25349193 | 23858064 | 26508960 | 23858064 | 26508960 | 27834408 | 27337365 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 4694,2063 | 5034,7982 | 5228,5146 | 5034,7982 | 4884,4717 | 5148,6853 | 4884,4717 | 5148,6853 | 5275,8324 | 5228,5146 |  |


| 98 | 99 | 100 | Y | Y2 |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 1 | 82 | 6724 |
| 1 | 1 | 1 | 81 | 6561 |
| 1 | 1 | 1 | 80 | 6400 |
| 1 | 1 | 1 | 79 | 6241 |
| 0 | 0 | 1 | 77 | 5929 |
| 1 | 1 | 1 | 76 | 5776 |
| 1 | 1 | 1 | 76 | 5776 |
| 1 | 1 | 1 | 75 | 5625 |
| 1 | 1 | 1 | 75 | 5625 |
| 1 | 1 | 1 | 75 | 5625 |
| 1 | 1 | 1 | 72 | 5184 |
| 0 | 1 | 0 | 72 | 5184 |
| 1 | 1 | 1 | 72 | 5184 |
| 0 | 0 | 0 | 70 | 4900 |
| 1 | 1 | 1 | 67 | 4489 |
| 1 | 1 | 1 | 54 | 2916 |
| 1 | 1 | 0 | 50 | 2500 |
| 0 | 1 | 1 | 48 | 2304 |
| 1 | 0 | 0 | 48 | 2304 |
| 1 | 0 | 1 | 45 | 2025 |
| 0 | 0 | 1 | 45 | 2025 |
| 0 | 1 | 1 | 45 | 2025 |
| 1 | 0 | 0 | 43 | 1849 |
| 0 | 0 | 0 | 43 | 1849 |
| 0 | 1 | 0 | 37 | 1369 |
| 0 | 0 | 0 | 36 | 1296 |
| 17 | 18 | 18 | 1623 | 107685 |
| 17 | 18 | 18 |  |  |
| 1150 | 1216 | 1224 |  |  |
| 0,459 | 0,492 | 0,534 |  |  |
| Valid | Valid | Valid |  |  |
| 0,40 | 0,43 | 0,43 |  |  |
| Medium | Medium | Medium |  |  |
| 11 | 12 | 12 |  |  |
| 6 | 6 | 6 |  |  |
| 13 | 13 | 13 |  |  |
| 13 | 13 | 13 |  |  |
| 0,38 | 0,46 | 0,46 |  |  |
| Sufficient | Good | Good |  |  |
| 0,059 | 0,056 | 0,056 |  |  |
| 0,941 | 0,944 | 0,944 |  |  |
| 0,055 | 0,052 | 0,052 |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Used | Used | Used |  |  |

## $23092402 \quad 2610$

$25349193 \quad 23858064 \quad 23858064$
$5034,79824884,47174884,4717$

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 82 | 82 | 82 | 82 | 82 | 0 | 82 | 82 | 82 | 82 |
| 0 | 0 | 0 | 81 | 0 | 81 | 81 | 81 | 0 | 81 |
| 80 | 80 | 80 | 80 | 80 | 80 | 0 | 80 | 0 | 0 |
| 79 | 0 | 79 | 79 | 0 | 79 | 79 | 79 | 79 | 79 |
| 0 | 77 | 77 | 0 | 77 | 0 | 77 | 77 | 0 | 77 |
| 76 | 0 | 76 | 76 | 76 | 0 | 0 | 0 | 76 | 76 |
| 76 | 76 | 76 | 76 | 0 | 76 | 76 | 76 | 76 | 76 |
| 75 | 0 | 75 | 75 | 0 | 75 | 75 | 0 | 75 | 0 |
| 75 | 75 | 0 | 0 | 75 | 0 | 75 | 75 | 75 | 75 |
| 75 | 75 | 75 | 0 | 75 | 75 | 0 | 75 | 75 | 75 |
| 72 | 72 | 0 | 72 | 0 | 72 | 72 | 72 | 72 | 72 |
| 0 | 72 | 72 | 72 | 72 | 0 | 72 | 72 | 72 | 72 |
| 72 | 0 | 0 | 0 | 0 | 72 | 72 | 0 | 0 | 0 |
| 0 | 70 | 0 | 70 | 70 | 70 | 0 | 70 | 70 | 0 |
| 67 | 0 | 67 | 0 | 0 | 0 | 67 | 67 | 0 | 67 |
| 0 | 54 | 0 | 54 | 54 | 0 | 0 | 0 | 0 | 54 |
| 50 | 0 | 0 | 50 | 0 | 0 | 50 | 50 | 50 | 0 |
| 48 | 0 | 0 | 0 | 0 | 48 | 0 | 0 | 0 | 48 |
| 48 | 48 | 48 | 48 | 0 | 48 | 48 | 0 | 48 | 0 |
| 45 | 45 | 0 | 0 | 45 | 0 | 0 | 0 | 45 | 0 |
| 0 | 0 | 45 | 0 | 0 | 45 | 45 | 45 | 45 | 45 |
| 45 | 45 | 0 | 45 | 45 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 43 | 0 | 0 | 43 | 0 | 43 | 0 | 43 |
| 43 | 0 | 43 | 43 | 0 | 0 | 43 | 0 | 43 | 0 |
| 0 | 0 | 37 | 0 | 37 | 37 | 0 | 0 | 0 | 0 |
| 36 | 36 | 36 | 36 | 0 | 36 | 0 | 0 | 36 | 0 |
| 1144 | 907 | 1011 | 1039 | 788 | 937 | 1014 | 1044 | 1019 | 1022 |


| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 |
| 81 | 81 | 81 | 81 | 81 | 0 | 81 | 81 | 0 | 81 |
| 80 | 80 | 80 | 80 | 0 | 80 | 80 | 0 | 80 | 80 |
| 79 | 0 | 0 | 79 | 79 | 79 | 79 | 79 | 79 | 0 |
| 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 |
| 76 | 76 | 0 | 76 | 76 | 76 | 76 | 0 | 76 | 76 |
| 0 | 0 | 76 | 76 | 76 | 0 | 76 | 76 | 76 | 0 |
| 75 | 75 | 75 | 75 | 0 | 75 | 75 | 75 | 0 | 75 |
| 75 | 75 | 0 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |
| 75 | 0 | 75 | 0 | 75 | 75 | 0 | 75 | 75 | 75 |
| 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 |
| 72 | 72 | 0 | 0 | 0 | 72 | 72 | 72 | 0 | 72 |
| 72 | 72 | 72 | 72 | 72 | 72 | 72 | 0 | 72 | 72 |
| 0 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 67 | 67 | 0 | 67 | 67 | 67 | 67 | 67 | 67 | 0 |
| 54 | 0 | 54 | 54 | 0 | 0 | 0 | 54 | 0 | 54 |
| 0 | 50 | 0 | 0 | 50 | 0 | 50 | 0 | 50 | 0 |
| 48 | 0 | 0 | 48 | 0 | 48 | 0 | 48 | 0 | 48 |
| 48 | 0 | 48 | 0 | 48 | 48 | 0 | 0 | 0 | 0 |
| 45 | 45 | 45 | 45 | 0 | 0 | 45 | 0 | 45 | 0 |
| 0 | 0 | 0 | 45 | 0 | 45 | 0 | 0 | 0 | 0 |
| 0 | 45 | 45 | 45 | 45 | 0 | 45 | 45 | 45 | 45 |
| 0 | 0 | 0 | 43 | 0 | 43 | 0 | 0 | 0 | 0 |
| 0 | 0 | 43 | 0 | 0 | 43 | 43 | 0 | 43 | 43 |
| 37 | 0 | 37 | 37 | 0 | 0 | 0 | 0 | 0 | 37 |
| 0 | 0 | 36 | 36 | 0 | 0 | 36 | 0 | 0 | 36 |
| 1215 | 1039 | 1068 | 1335 | 1045 | 1199 | 1273 | 1048 | 1084 | 1170 |


| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 0 | 82 |
| 81 | 81 | 81 | 81 | 81 | 81 | 81 | 0 | 81 | 0 |
| 80 | 80 | 80 | 80 | 80 | 80 | 0 | 80 | 80 | 80 |
| 79 | 79 | 0 | 79 | 79 | 0 | 79 | 79 | 79 | 79 |
| 77 | 0 | 77 | 77 | 77 | 77 | 77 | 0 | 77 | 77 |
| 0 | 76 | 76 | 76 | 0 | 76 | 76 | 76 | 0 | 76 |
| 76 | 76 | 0 | 0 | 76 | 76 | 76 | 0 | 76 | 0 |
| 75 | 75 | 75 | 75 | 75 | 75 | 0 | 75 | 75 | 0 |
| 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 0 |
| 75 | 75 | 75 | 0 | 0 | 75 | 75 | 0 | 75 | 75 |
| 72 | 0 | 72 | 72 | 72 | 0 | 72 | 72 | 72 | 0 |
| 0 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 |
| 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 0 |
| 70 | 70 | 70 | 70 | 0 | 70 | 70 | 0 | 70 | 70 |
| 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 0 |
| 0 | 0 | 54 | 0 | 54 | 0 | 0 | 54 | 0 | 0 |
| 0 | 0 | 0 | 50 | 0 | 50 | 50 | 0 | 50 | 0 |
| 48 | 0 | 0 | 0 | 48 | 0 | 0 | 48 | 48 | 0 |
| 0 | 0 | 0 | 0 | 48 | 48 | 48 | 0 | 0 | 48 |
| 45 | 45 | 45 | 45 | 0 | 0 | 0 | 45 | 0 | 0 |
| 0 | 0 | 0 | 0 | 45 | 45 | 45 | 45 | 45 | 0 |
| 45 | 45 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 43 | 0 | 0 | 43 | 43 | 43 | 43 | 0 | 43 | 0 |
| 0 | 43 | 0 | 43 | 43 | 0 | 0 | 0 | 0 | 43 |
| 37 | 37 | 37 | 0 | 0 | 0 | 0 | 37 | 37 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 36 |
| 1199 | 1150 | 1155 | 1159 | 1189 | 1164 | 1160 | 979 | 1230 | 738 |


| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 0 | 82 | 82 | 82 | 82 | 82 | 82 | 0 | 0 | 0 |
| 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 |
| 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 0 | 80 |
| 79 | 79 | 0 | 79 | 0 | 79 | 79 | 79 | 0 | 0 |
| 0 | 77 | 77 | 0 | 77 | 0 | 77 | 77 | 0 | 77 |
| 76 | 0 | 76 | 76 | 76 | 76 | 76 | 0 | 76 | 0 |
| 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 0 | 76 |
| 75 | 0 | 75 | 75 | 0 | 75 | 75 | 0 | 75 | 0 |
| 75 | 75 | 75 | 75 | 75 | 75 | 0 | 75 | 0 | 75 |
| 75 | 75 | 75 | 75 | 75 | 0 | 75 | 0 | 75 | 0 |
| 0 | 72 | 72 | 0 | 72 | 72 | 0 | 72 | 0 | 72 |
| 72 | 72 | 0 | 72 | 72 | 0 | 72 | 0 | 72 | 0 |
| 0 | 72 | 72 | 72 | 72 | 72 | 72 | 0 | 0 | 72 |
| 70 | 70 | 0 | 70 | 70 | 70 | 70 | 0 | 70 | 70 |
| 0 | 0 | 67 | 67 | 0 | 67 | 67 | 67 | 0 | 67 |
| 0 | 54 | 0 | 0 | 54 | 0 | 54 | 0 | 0 | 54 |
| 50 | 0 | 50 | 50 | 0 | 0 | 50 | 0 | 50 | 0 |
| 0 | 0 | 48 | 0 | 0 | 48 | 0 | 48 | 0 | 48 |
| 0 | 48 | 0 | 48 | 48 | 0 | 48 | 0 | 48 | 0 |
| 45 | 0 | 45 | 0 | 45 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 45 | 0 | 0 | 45 | 0 | 45 | 0 | 0 |
| 45 | 45 | 0 | 45 | 45 | 0 | 0 | 0 | 0 | 45 |
| 0 | 43 | 43 | 0 | 43 | 0 | 43 | 43 | 0 | 0 |
| 43 | 43 | 0 | 43 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 37 | 0 | 0 | 37 | 0 | 37 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 36 | 36 |
| 942 | 1144 | 1176 | 1166 | 1143 | 1035 | 1177 | 816 | 583 | 853 |


| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 82 | 82 | 82 | 82 | 0 | 82 | 82 | 82 | 0 | 0 |
| 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 |
| 80 | 80 | 80 | 80 | 0 | 80 | 80 | 80 | 80 | 80 |
| 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 0 |
| 77 | 77 | 77 | 77 | 0 | 77 | 77 | 77 | 0 | 77 |
| 76 | 76 | 76 | 0 | 76 | 0 | 0 | 0 | 76 | 76 |
| 0 | 0 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 |
| 75 | 75 | 75 | 75 | 0 | 75 | 75 | 0 | 0 | 75 |
| 75 | 75 | 0 | 75 | 75 | 0 | 75 | 75 | 0 | 75 |
| 75 | 0 | 75 | 0 | 75 | 0 | 75 | 75 | 75 | 75 |
| 0 | 72 | 0 | 72 | 0 | 72 | 72 | 72 | 0 | 72 |
| 72 | 72 | 72 | 72 | 72 | 72 | 0 | 72 | 0 | 72 |
| 0 | 72 | 72 | 72 | 0 | 72 | 72 | 72 | 72 | 72 |
| 70 | 70 | 70 | 0 | 70 | 70 | 70 | 0 | 70 | 70 |
| 67 | 0 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| 0 | 54 | 0 | 54 | 54 | 0 | 54 | 0 | 54 | 0 |
| 50 | 50 | 0 | 0 | 0 | 0 | 50 | 50 | 0 | 50 |
| 0 | 48 | 48 | 48 | 48 | 48 | 48 | 0 | 48 | 48 |
| 48 | 0 | 0 | 48 | 0 | 0 | 0 | 48 | 0 | 0 |
| 0 | 45 | 45 | 0 | 0 | 0 | 0 | 45 | 0 | 0 |
| 0 | 0 | 0 | 45 | 45 | 0 | 0 | 0 | 45 | 45 |
| 0 | 45 | 45 | 0 | 0 | 45 | 45 | 45 | 0 | 45 |
| 43 | 0 | 43 | 43 | 0 | 43 | 0 | 0 | 43 | 0 |
| 0 | 0 | 43 | 0 | 0 | 0 | 0 | 43 | 0 | 43 |
| 37 | 0 | 0 | 0 | 0 | 37 | 0 | 0 | 0 | 37 |
| 0 | 0 | 0 | 0 | 36 | 0 | 0 | 0 | 36 | 36 |
| 1087 | 1153 | 1206 | 1146 | 854 | 1076 | 1178 | 1139 | 902 | 1272 |


| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 82 | 82 | 82 | 0 | 82 | 82 | 82 | 82 | 0 | 0 |
| 81 | 81 | 0 | 81 | 81 | 81 | 81 | 81 | 81 | 81 |
| 0 | 80 | 80 | 80 | 0 | 0 | 80 | 80 | 80 | 80 |
| 79 | 0 | 0 | 79 | 79 | 79 | 79 | 79 | 0 | 79 |
| 77 | 77 | 77 | 0 | 77 | 77 | 0 | 77 | 77 | 0 |
| 0 | 76 | 76 | 76 | 0 | 76 | 76 | 76 | 76 | 76 |
| 76 | 76 | 76 | 0 | 76 | 76 | 76 | 76 | 0 | 0 |
| 75 | 75 | 75 | 75 | 0 | 75 | 75 | 0 | 75 | 75 |
| 75 | 0 | 75 | 0 | 75 | 0 | 0 | 75 | 0 | 75 |
| 75 | 75 | 75 | 0 | 0 | 75 | 75 | 0 | 75 | 0 |
| 72 | 72 | 72 | 72 | 72 | 0 | 72 | 72 | 0 | 72 |
| 0 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 0 |
| 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 0 | 0 |
| 70 | 70 | 0 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 67 | 67 | 67 | 67 | 0 | 67 | 67 | 67 | 67 | 0 |
| 0 | 54 | 0 | 0 | 54 | 0 | 0 | 54 | 0 | 0 |
| 0 | 50 | 0 | 50 | 0 | 0 | 50 | 50 | 50 | 0 |
| 48 | 0 | 48 | 0 | 48 | 48 | 0 | 0 | 48 | 48 |
| 0 | 48 | 0 | 0 | 48 | 0 | 48 | 0 | 0 | 48 |
| 45 | 0 | 45 | 45 | 45 | 0 | 0 | 45 | 0 | 0 |
| 0 | 0 | 45 | 0 | 0 | 45 | 45 | 0 | 0 | 0 |
| 0 | 45 | 0 | 45 | 45 | 0 | 0 | 0 | 0 | 45 |
| 43 | 0 | 43 | 0 | 0 | 43 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 43 | 0 | 43 | 43 | 0 | 43 |
| 0 | 0 | 0 | 37 | 0 | 37 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 36 | 0 | 36 | 0 | 0 | 36 | 36 |
| 1037 | 1172 | 1080 | 957 | 1039 | 1111 | 1163 | 1171 | 807 | 828 |


| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 82 | 0 | 82 | 0 | 82 | 82 | 82 | 82 | 82 | 82 |
| 81 | 81 | 0 | 81 | 81 | 81 | 0 | 81 | 81 | 81 |
| 80 | 0 | 80 | 0 | 80 | 80 | 80 | 80 | 80 | 80 |
| 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 0 | 79 |
| 77 | 77 | 0 | 0 | 77 | 77 | 77 | 77 | 77 | 77 |
| 76 | 0 | 76 | 76 | 0 | 76 | 76 | 76 | 76 | 76 |
| 76 | 76 | 76 | 0 | 76 | 76 | 76 | 0 | 76 | 0 |
| 75 | 0 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |
| 0 | 75 | 0 | 75 | 75 | 75 | 0 | 0 | 75 | 75 |
| 75 | 75 | 75 | 75 | 75 | 0 | 75 | 75 | 75 | 75 |
| 0 | 0 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 |
| 72 | 72 | 0 | 0 | 72 | 0 | 72 | 72 | 72 | 0 |
| 72 | 0 | 72 | 72 | 0 | 72 | 72 | 72 | 0 | 72 |
| 0 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 67 | 0 | 67 | 0 | 0 | 0 | 0 | 67 | 0 | 67 |
| 54 | 54 | 0 | 54 | 54 | 54 | 54 | 0 | 54 | 0 |
| 50 | 0 | 0 | 50 | 0 | 0 | 50 | 50 | 50 | 50 |
| 0 | 48 | 48 | 48 | 48 | 48 | 0 | 48 | 0 | 0 |
| 0 | 0 | 48 | 48 | 0 | 48 | 48 | 0 | 48 | 48 |
| 45 | 45 | 0 | 0 | 45 | 0 | 0 | 0 | 45 | 0 |
| 0 | 0 | 45 | 0 | 0 | 45 | 45 | 45 | 0 | 45 |
| 45 | 0 | 0 | 45 | 45 | 0 | 45 | 45 | 0 | 0 |
| 0 | 43 | 43 | 0 | 0 | 43 | 0 | 0 | 0 | 0 |
| 43 | 0 | 0 | 43 | 0 | 43 | 0 | 0 | 0 | 43 |
| 0 | 0 | 0 | 0 | 37 | 0 | 0 | 0 | 37 | 0 |
| 0 | 36 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1149 | 831 | 1044 | 963 | 1143 | 1196 | 1148 | 1166 | 1145 | 1167 |


| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 | 82 |
| 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 0 |
| 80 | 80 | 0 | 80 | 80 | 0 | 80 | 80 | 80 | 80 |
| 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 |
| 77 | 0 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 0 |
| 0 | 76 | 0 | 76 | 0 | 76 | 76 | 76 | 0 | 76 |
| 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 |
| 75 | 75 | 75 | 75 | 0 | 75 | 0 | 0 | 75 | 75 |
| 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 0 | 75 |
| 75 | 75 | 75 | 0 | 0 | 0 | 0 | 75 | 75 | 0 |
| 0 | 0 | 72 | 72 | 72 | 72 | 72 | 0 | 72 | 72 |
| 72 | 72 | 72 | 0 | 72 | 72 | 72 | 72 | 0 | 72 |
| 0 | 72 | 72 | 72 | 72 | 0 | 72 | 72 | 72 | 0 |
| 70 | 70 | 70 | 70 | 0 | 70 | 70 | 70 | 0 | 70 |
| 0 | 0 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 0 |
| 54 | 54 | 0 | 0 | 54 | 0 | 54 | 0 | 54 | 54 |
| 0 | 0 | 50 | 50 | 0 | 0 | 50 | 50 | 0 | 0 |
| 48 | 0 | 0 | 0 | 0 | 48 | 0 | 48 | 48 | 0 |
| 0 | 48 | 0 | 0 | 48 | 0 | 0 | 0 | 48 | 0 |
| 45 | 0 | 45 | 45 | 0 | 0 | 45 | 0 | 0 | 45 |
| 0 | 0 | 0 | 45 | 45 | 0 | 45 | 45 | 0 | 45 |
| 0 | 45 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 45 |
| 0 | 43 | 0 | 43 | 0 | 43 | 0 | 43 | 43 | 0 |
| 0 | 43 | 43 | 0 | 0 | 43 | 43 | 0 | 0 | 43 |
| 37 | 0 | 37 | 0 | 37 | 0 | 0 | 37 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 0 | 36 |
| 1026 | 1146 | 1148 | 1165 | 1017 | 1081 | 1216 | 1241 | 1029 | 1025 |


| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 82 | 82 | 0 | 82 | 0 | 82 | 82 | 0 | 82 | 82 |
| 0 | 81 | 0 | 81 | 81 | 81 | 0 | 81 | 81 | 81 |
| 0 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 0 | 0 |
| 79 | 79 | 0 | 79 | 79 | 79 | 79 | 79 | 0 | 79 |
| 77 | 77 | 77 | 0 | 77 | 77 | 77 | 77 | 77 | 77 |
| 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 |
| 76 | 0 | 76 | 76 | 76 | 0 | 76 | 76 | 76 | 0 |
| 0 | 75 | 0 | 75 | 75 | 75 | 75 | 75 | 0 | 75 |
| 0 | 75 | 0 | 0 | 75 | 75 | 0 | 75 | 75 | 75 |
| 75 | 75 | 0 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |
| 72 | 0 | 72 | 0 | 0 | 0 | 72 | 0 | 72 | 0 |
| 0 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 |
| 0 | 72 | 72 | 72 | 72 | 72 | 0 | 0 | 0 | 72 |
| 0 | 0 | 0 | 0 | 0 | 0 | 70 | 70 | 70 | 0 |
| 67 | 67 | 0 | 0 | 0 | 0 | 67 | 0 | 0 | 67 |
| 0 | 0 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| 50 | 50 | 50 | 50 | 50 | 50 | 0 | 0 | 50 | 0 |
| 0 | 48 | 0 | 0 | 48 | 0 | 48 | 48 | 0 | 0 |
| 0 | 0 | 48 | 48 | 48 | 48 | 0 | 0 | 48 | 48 |
| 0 | 45 | 45 | 0 | 0 | 0 | 0 | 45 | 0 | 0 |
| 45 | 0 | 0 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| 0 | 45 | 0 | 0 | 45 | 0 | 0 | 0 | 45 | 0 |
| 43 | 0 | 43 | 0 | 43 | 43 | 43 | 0 | 43 | 0 |
| 43 | 43 | 0 | 0 | 43 | 43 | 0 | 43 | 0 | 0 |
| 0 | 0 | 0 | 37 | 37 | 37 | 37 | 37 | 37 | 0 |
| 36 | 0 | 0 | 36 | 36 | 36 | 36 | 36 | 36 | 0 |
| 821 | 1142 | 765 | 1083 | 1242 | 1200 | 1164 | 1189 | 1069 | 1021 |


| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 82 | 82 | 82 | 82 | 82 | 82 | 0 | 82 | 82 | 82 |
| 0 | 81 | 81 | 81 | 0 | 0 | 81 | 81 | 81 | 81 |
| 80 | 0 | 80 | 80 | 80 | 0 | 80 | 80 | 80 | 80 |
| 79 | 79 | 79 | 79 | 0 | 0 | 0 | 79 | 79 | 79 |
| 77 | 77 | 77 | 77 | 77 | 77 | 0 | 0 | 0 | 77 |
| 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 |
| 0 | 0 | 0 | 76 | 76 | 76 | 76 | 76 | 76 | 76 |
| 0 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |
| 75 | 0 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |
| 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |
| 72 | 72 | 72 | 0 | 72 | 0 | 72 | 72 | 72 | 72 |
| 72 | 72 | 72 | 0 | 0 | 0 | 0 | 0 | 72 | 0 |
| 72 | 72 | 0 | 72 | 72 | 72 | 0 | 72 | 72 | 72 |
| 70 | 0 | 0 | 70 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 67 | 67 | 67 | 0 | 0 | 67 | 67 | 67 | 67 |
| 0 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| 50 | 0 | 0 | 50 | 0 | 50 | 0 | 50 | 50 | 0 |
| 48 | 0 | 48 | 0 | 0 | 0 | 0 | 0 | 48 | 48 |
| 0 | 48 | 0 | 48 | 48 | 48 | 48 | 48 | 0 | 0 |
| 45 | 45 | 0 | 45 | 45 | 0 | 45 | 45 | 0 | 45 |
| 45 | 0 | 45 | 0 | 45 | 0 | 0 | 0 | 0 | 45 |
| 0 | 45 | 0 | 0 | 0 | 0 | 45 | 0 | 45 | 45 |
| 0 | 0 | 0 | 0 | 43 | 43 | 43 | 43 | 0 | 0 |
| 43 | 43 | 0 | 43 | 0 | 43 | 0 | 0 | 0 | 0 |
| 0 | 37 | 37 | 0 | 37 | 0 | 37 | 0 | 37 | 0 |
| 36 | 36 | 0 | 0 | 0 | 36 | 0 | 0 | 0 | 0 |
| 1097 | 1136 | 1095 | 1225 | 1032 | 882 | 949 | 1150 | 1216 | 1224 |

## Perhitungan Validitas Soal

Berikut ini perhitungan Validitas soal pada butir nomor 1

| No. | X | Y | $\mathrm{X}^{2}$ | $\mathrm{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 27 | 1 | 729 | 27 |
| 2 | 0 | 26 | 0 | 676 | 0 |
| 3 | 0 | 26 | 0 | 676 | 0 |
| 4 | 1 | 26 | 1 | 676 | 26 |
| 5 | 0 | 25 | 0 | 625 | 0 |
| 6 | 1 | 25 | 1 | 625 | 25 |
| 7 | 1 | 25 | 1 | 625 | 25 |
| 8 | 1 | 25 | 1 | 625 | 25 |
| 9 | 0 | 23 | 0 | 529 | 0 |
| 10 | 1 | 23 | 1 | 529 | 23 |
| 11 | 0 | 21 | 0 | 441 | 0 |
| 12 | 0 | 21 | 0 | 441 | 0 |
| 13 | 1 | 21 | 1 | 441 | 21 |
| 14 | 0 | 19 | 0 | 361 | 0 |
| 15 | 0 | 19 | 0 | 361 | 0 |
| 16 | 0 | 19 | 0 | 361 | 0 |
| 17 | 1 | 18 | 1 | 324 | 18 |
| 18 | 0 | 18 | 0 | 324 | 0 |
| 19 | 1 | 18 | 1 | 324 | 18 |
| 20 | 1 | 18 | 1 | 324 | 18 |
| 21 | 0 | 18 | 0 | 324 | 0 |
| 22 | 1 | 18 | 1 | 324 | 18 |
| 23 | 0 | 18 | 0 | 324 | 0 |
| 24 | 1 | 18 | 1 | 324 | 18 |
| 25 | 0 | 18 | 0 | 324 | 0 |
| 26 | 0 | 17 | 0 | 289 | 0 |
| 27 | 1 | 17 | 1 | 289 | 17 |
| 28 | 0 | 16 | 0 | 256 | 0 |
| 29 | 0 | 16 | 0 | 256 | 0 |
| 30 | 0 | 15 | 0 | 225 | 0 |
| 31 | 1 | 15 | 1 | 225 | 15 |
| 32 | 0 | 15 | 0 | 225 | 0 |
| 33 | 0 | 15 | 0 | 225 | 0 |
| 34 | 1 | 14 | 1 | 196 | 14 |
| 35 | 0 | 14 | 0 | 196 | 0 |
| 36 | 1 | 14 | 1 | 196 | 14 |
| 37 | 1 | 11 | 1 | 121 | 11 |
| 38 | 0 | 11 | 0 | 121 | 0 |
| 39 | 0 | 11 | 0 | 121 | 0 |
| 40 | 0 | 10 | 0 | 100 | 0 |
| 41 | 0 | 10 | 0 | 100 | 0 |
| 42 | 0 | 10 | 0 | 100 | 0 |
| Jml | 17 | 764 | 17 | 14878 | 333 |

DATA NILAI TEST KELOMPOK EKSPERIMEN DAN KONTROL

| Eksperimen |  |  | Kontrol |  |
| :---: | :---: | :---: | :---: | :---: |
| No. | Kode | Nilai | Kode | Nilai |
| 1 | E-1 | 8,95 | K-1 | 4,74 |
| 2 | E-2 | 7,89 | K-2 | 7,89 |
| 3 | E-3 | 8,42 | K-3 | 7,37 |
| 4 | E-4 | 5,26 | K-4 | 6,84 |
| 5 | E-5 | 8,95 | K-5 | 5,79 |
| 6 | E-6 | 7,89 | K-6 | 8,95 |
| 7 | E-7 | 5,79 | K-7 | 5,26 |
| 8 | E-8 | 8,95 | K-8 | 6,32 |
| 9 | E-9 | 8,42 | K-9 | 6,32 |
| 10 | E-10 | 7,89 | K-10 | 5,79 |
| 11 | E-11 | 7,89 | K-11 | 5,79 |
| 12 | E-12 | 5,79 | K-12 | 7,89 |
| 13 | E-13 | 7,89 | K-13 | 4,74 |
| 14 | E-14 | 8,42 | K-14 | 7,37 |
| 15 | E-15 | 7,89 | K-15 | 7,37 |
| 16 | E-16 | 7,89 | K-16 | 5,26 |
| 17 | E-17 | 6,84 | K-17 | 10,00 |
| 18 | E-18 | 7,89 | K-18 | 7,89 |
| 19 | E-19 | 7,37 | K-19 | 4,74 |
| 20 | E-20 | 7,37 | K-20 | 5,26 |
| 21 | E-21 | 6,84 | K-21 | 8,42 |
| 22 | E-22 | 7,37 | K-22 | 8,42 |
| 23 | E-23 | 6,84 | K-23 | 8,42 |
| 24 | E-24 | 5,79 | K-24 | 7,37 |
| 25 | E-25 | 7,37 | K-25 | 8,95 |
| 26 | E-26 | 7,37 | K-26 | 7,89 |
| 27 | E-27 | 6,84 | K-27 | 9,47 |
| 28 | E-28 | 5,79 | K-28 | 7,89 |
| 29 | E-29 | 5,79 | K-29 | 7,37 |
| 30 | E-30 | 6,32 | K-30 | 7,89 |
| 31 | E-31 | 10,00 | K-31 | 6,84 |
| 32 | E-32 | 6,32 | K-32 | 8,42 |
| 33 | E-33 | 7,37 | K-33 | 6,84 |
| 34 | E-34 | 6,32 | K-34 | 5,26 |
| 35 | E-35 | 6,32 | K-35 | 8,95 |
| 36 | E-36 | 9,47 | K-36 | 6,32 |
| 37 | E-37 | 7,89 | K-37 | 4,21 |
| 38 | E-38 | 7,89 | K-38 | 4,74 |
| 39 | E-39 | 7,89 | K-39 | 5,26 |
| 40 | E-40 | 10,00 | K-40 | 6,32 |
| 41 |  |  | K-41 | 6,84 |
| 42 |  |  | K-42 | 7,37 |
| $\Sigma$ |  | 299,47 |  | 291,05 |
| $\mathrm{n}_{1}$ |  | 40 |  | 42 |
| $\overline{\mathrm{x}}$ |  | 7,49 |  | 6,93 |
| $S^{2}$ |  | 1,385 |  | 2,188 |
| S |  | 1,177 |  | 1,479 |


| 17 | 9 |
| ---: | ---: |
| 15 | 15 |
| 16 | 14 |
| 10 | 13 |
| 17 | 11 |
| 15 | 17 |
| 11 | 10 |
| 17 | 12 |
| 16 | 12 |
| 15 | 11 |
| 15 | 11 |
| 11 | 15 |
| 15 | 9 |
| 16 | 14 |
| 15 | 14 |
| 15 | 10 |
| 13 | 19 |
| 15 | 15 |
| 14 | 9 |
| 14 | 10 |
| 13 | 16 |
| 14 | 16 |
| 13 | 16 |
| 11 | 14 |
| 14 | 17 |
| 14 | 15 |
| 13 | 18 |
| 11 | 15 |
| 11 | 14 |
| 12 | 15 |
| 19 | 13 |
| 12 | 16 |
| 14 | 13 |
| 12 | 10 |
| 12 | 17 |
| 18 | 12 |
| 15 | 8 |
| 15 | 9 |
| 15 | 10 |
| 19 | 12 |
|  | 13 |
|  | 14 |

## Result first activity

| No | Students' Code | First Activity |  |
| :---: | :---: | :---: | :---: |
|  |  | Score | \% |
| 1 | R-1 | 6 | 60 |
| 2 | R-2 | 7 | 70 |
| 3 | R-3 | 7 | 70 |
| 4 | R-4 | 7 | 70 |
| 5 | R-5 | 7 | 60 |
| 6 | R-6 | - 6 | $\square 60$ |
| 7 | R-7 | - 7 | $\square 70$ |
| 8 | R-8 | 6 | 60 |
| 9 | R-9 | 7 | 70 |
| 10 | R-10 | 6 | 60 |
| 11 | - R-11 | 7 | 70 |
| 12 | R-12 | 7 | 70 |
| 13 | R-13 | 7 | 70 |
| 14 | R-14 | 6 | 60 |
| 15 | R-15 | 8 | 80 |
| 16 | R-16 | 7 | 70 |
| 17 | R-17 | 6 | 60 |
| 18 | R-18 | 7 | 70 |
| 19 | R-19 | 8 | 80 |
| 20 | R-20 | 6 | 60 |
| 21 | R-21 | 7 | 60 |
| 22 | R-22 | 8 | 80 |
| 23 | R-23 | 7 | 70 |
| 24 | R-24 | 6 | 60 |
| 25 | R-25 | RP\| 8 | CAMN 80 |
| 26 | R-26 | 6 | $\square-60$ |
| 27 | R-27 | 7 | $=70$ |
| 28 | R-28 | 8 | -80 |
| 29 | R-29 | 6 | 60 |
| 30 | R-30 | 6 | 60 |
| Total of the Students:$30$ |  | 208 | 2080 |

## Result second activity

| No | Students' Code | Second Activity |  |
| :---: | :---: | :---: | :---: |
|  |  | Score | $\%$ |
| 1 | R-1 | 6 | 70 |
| 2 | R-2 | 7 | 70 |
| 3 | R-3 | 7 | 70 |
| 4 | R-4 | 7 | 70 |
| 5 | R-5 | 7 | 60 |
| 6 | R-6 | 8 | 80 |
| 7 | R-7 | 7 | 70 |
| 8 | R-8 | 8 | 80 |
| 9 | R-9 | 7 | 70 |
| 10 | R-10 | 6 | 60 |
| 11 | R-11 | 7 | 70 |
| 12 | R-12 | 7 | 70 |
| 13 | R-13 | 7 | 70 |
| 14 | R-14 | 6 | 60 |
| 15 | R-15 | 7 | 70 |
| 16 | R-16 | 7 | 70 |
| 17 | R-17 | 6 | 60 |
| 18 | R-18 | 7 | 70 |
| 19 | R-19 | 8 | 80 |
| 20 | R-20 | 8 | 80 |
| 21 | R-21 | 7 | 60 |
| 22 | R-22 | 8 | 80 |
| 23 | R-23 | 7 | 70 |
| 24 | R-24 | 6 | 60 |
| 25 | R-25 | $P R E S$ | 90 |
| 26 | R-26 | 6 | 60 |
| 27 | R-27 | 7 | 70 |
| 28 | R-28 | 7 | 70 |
| 29 | R-29 | 8 | 80 |
| 30 | R-30 | 6 | 60 |
| Total of the Students:30 | 217 | 2170 |  |
|  |  |  |  |

A. Year : XI
B. Semester : 1
C. Time allotment :90 minutes
D. Basic Competence : Listening
E. Indicators $\quad:$ By the end of the lesson, students are able to identify the conversation they have heard.
F. Media
G. Teaching and learning activities:

## 1. Opening

Time: 10 minutes

- Teacher opens the lesson by greeting the students and checks the roll.
- Teacher tells the students about the material

2. Main activity

Time: 30 minutes

- Teacher plays the record.
- Teacher asks the student to listen it.


## PERPUSTAKAAN

- After they finish, teacher asks some questions to the students about what they have heard.
- Teacher explains about the content of the material.
- Teacher explains the difficult words, how to pronounce.
- Teacher plays the record.


## 3. Closing

Time: 10 minutes

- Teacher gives motivation to the student.
- Teacher gives assignment to students to listen the radio in RCT FM.
H. Assessment Test:

Time: 20 minutes

- 10 items of listening test.
- Scoring.
A. Year : XI
B. Semester : 1
C. Time allotment :90 minutes
D. Basic Competence : Listening
E. Indicators $\quad:$ By the end of the lesson, students are able to identify the conversation they have heard.
F. Media
G. Teaching and learning activities:


## 1. Opening

Time: 10 minutes

- Teacher opens the lesson by greeting the students and checks the roll.
- Teacher asks some questions about last study.
- Teacher tells the students about the material

2. Main activity

Time: 30 minutes

- Teacher plays the record.
- Teacher asks the students to listen it.
- After they finish, teacher asks some questions to the students about what they have heard.
- Teacher explains about the content of the material.
- Teacher explains the difficult words, how to pronounce.
- Teacher plays the record.

3. Closing

Time: 10 minutes

- Teacher gives motivation to the student.
H. Assessment Test:

Time: 20 minutes

- 10 items of listening test.
- Scoring.


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## The Result of the Pre Test

| No | Student' Code | Score | \% |
| :---: | :---: | :---: | :---: |
| 1 | R-1 | 30 | 60 |
| 2 | R-2 | 27 | 54 |
| 3 | R-3 | 32 | 64 |
| 4 | R-4 | 37 | 74 |
| 5 | R-5 | 35 | 70 |
| 6 | $\mathrm{R}-6$ | 31 | 62 |
| 7 | R-7 | 35 | -70 |
| 8 | R-8 | -37 | 74 |
| 9 | R-9 | 38 | 76 |
| 10 | R-10 | 40 | 180 |
| 11 | R-11 | 30 | 60 |
| 12 | R-12 | 29 | 58 |
| 13 | R-13 | 40 | 80 |
| 14 | R-14 | 25 | 50 |
| 15 | R-15 | 40 | 80 |
| 16 | R-16 | 36 | 72 |
| 17 | R-17 | 30 | 60 |
| 18 | R-18 | 26 | 52 |
| 19 | R-19 | 25 | 50 |
| 20 | R-20 | 30 | 60 |
| 21 | R-21 | 35 | 70 |
| 22 | R-22 | 26 | 52 |
| 23 | R-23 | 31 | 62 |
| 24 | R-24 | 31 | 62 |
| 25 | R-25 | 22 | 44 |
| 26 | R-26 | 38 | 76 |
| 27 | R-27 | 22 | 44 |
| 28 | R-28 | 25 | 50 |
| 29 | $\mathrm{R}-29 \mathrm{TR}$ | IA 25 Alv | 50 |
| 30 | R-30 | - 26 | 52 |
|  | Total of the Students: 30 | - 964 | -1928 |

The Result of the Post Test

| No | Student' Code | Score | \% |
| :---: | :---: | :---: | :---: |
| 1 | R-1 | 35 | 70 |
| 2 | R-2 | 38 | 76 |
| 3 | R-3 | 36 | 72 |
| 4 | R-4 | 37 | 74 |
| 5 | R-5 | 35 | 70 |
| 6 | $\mathrm{R}-6$ | 36 | 72 |
| 7 | R-7 | 35 | -70 |
| 8 | R-8 | - 38 | 76 |
| 9 | R-9 | 38 | 76 |
| 10 | R-10 | 42 | 184 |
| 11 | R-11 | 34 | 68 |
| 12 | R-12 | 35 | 70 |
| 13 | R-13 | 42 | 84 |
| 14 | R-14 | 31 | 62 |
| 15 | R-15 | 38 | 76 |
| 16 | R-16 | 35 | 70 |
| 17 | R-17 | 36 | 72 |
| 18 | R-18 | 28 | 56 |
| 19 | R-19 | 30 | 60 |
| 20 | R-20 | 37 | 74 |
| 21 | R-21 | 35 | 70 |
| 22 | R-22 | 28 | 56 |
| 23 | R-23 | 30 | 60 |
| 24 | R-24 | 35 | 70 |
| 25 | R-25 | 30 | 60 |
| 26 | R-26 | - 45 | 90 |
| 27 | R-27 | 30 | 60 |
| 28 | R-28 | 28 | 56 |
| 29 | $\mathrm{R}-29 \mathrm{TR}$ | IA 32 and | 64 |
| 30 | R-30 | - 35 | 70 |
|  | Total of the Students: 30 | - 1079 | 2158 |

