## APPENDIX 1

The Materials of Reading and Writing Tests

# Reading Comprehension Test 

## Choose the correct answer!

## The text is for questions number 1-10

Text 1
Even though I am the older brother and she's the younger sister, Josie was always a head taller, and a good 40 pounds heavier than me when we were growing up. I hated that. I was the big brother. I was supposed to be dominant and protective. But while she was the biggest kid in school, I was nearly the smallest.

Josie's size and strength only made my lack of those two qualities more apparent. I was two years ahead of her in school, which meant that by the time she got to middle school I was already an $8^{\text {th }}$ grader. Kids in middle school are not kind or accepting, and over the years, they had continually made fun of my puny size and lack of athletic ability. But the teasing reached a whole new level when Josie entered middle school. Now they had a new angle for tormenting me.

They would taunt, "Hey Shrimp! Your sister still beat you up?" Or, they would chant again and again on the bus, "Paul, Paul, he's so small, but his sister's ten feet tall!" I guess that rhyme was hurtful to both of us, but I only felt my own humiliation. It still baffles me that I took no notice of my sister's feelings. The times when the jokes centered around her, like when they called her "Josie the Giant," it was such a relief not to be their target that I did nothing to stop them. Nothing seemed to bother Josie anyway. I never heard her complain or so much as saw her wince. I just assumed that her interior was a steely as her exterior.

That was until the day she snapped.
There was a new girl, Ginny, in Josie's class who wore really thick glasses, and without them, was nearly blind. She, to my relief, had temporarily become the butt of jokes and pranks. The latest chant that the kids had come up with was, "Ginny, Ginny, short and fat, squinty-eyed and blind as a bat!" In all fairness, Ginny wasn't fat at all, but the kids chanted that because it rhymed with bat.

It started as a normal lunch break, with Josie and Ginny standing together in line. Suddenly, Tommy Pederson ran up behind Ginny and snatched her glasses off her face. Everyone began the chant as they carelessly tossed her glasses down the line. I watched Josie's face as it was happening. There seemed to be an anger beyond normal $6^{\text {th }}$ grade capacity brewing behind her eyes. Tommy Pederson had gotten the glasses back and was waving them around in the air. That's when it happened. With one hand Josie grabbed the glasses from him and with the other she punched him in the face. She hit him with such force that he fell over. Everyone froze in shock for a second until Tommy screamed "Get her!" There must have been 15 different students who rushed toward Josie. She held the glasses up as if to protect them and looked panicked until she made eye contact with me. "Josie! Here!" I screamed, gesturing that she throw me the glasses. She tossed the glasses to me, and miraculously, I caught them. She then faced the students who were rushing toward
her. She skillfully defended herself by knocking them down one at a time as they approached her. She stopped fighting only when no one else dared move toward her.

I brought the glasses over and handed them to Tommy as he was picking himself up off the floor, humiliated. "Say you're sorry and give Ginny back her glasses," I told him. He said nothing. Josie slowly walked over and punched him in the stomach. He doubled over gasping for breath. "Say you're sorry and give her back her glasses," she repeated as she dragged him

1. What best title suit for the text?
a. Paul and Josie
b. Josie is Great
c. Paul's Family
d. Josie's Triumph
e. Paul's Brother
2. If Paul were 94 pounds, how heavy were Josie?
a. 134 pounds
b. 124 pounds
c. 144 pounds
d. 224 pounds
e. 234 pounds
3. Which of the following statement is true?
a. Paul is bigger than Josie
b. Other students can accept Josie as she is
c. Ginny is short and fat
d. Tommy Pederson likes to bully other students
e. Josie is the elder sister of Paul
4. Who is Ginny?
a. She is the OSIS leader
b. She is Paul's sister
c. She is Tommy's sister
d. She is a new student
over to Ginny. "S-s-sorry," stammered Tommy as he handed her the glasses. Ginny took them, her eyes round with shock.

At that point, someone started clapping. It was quiet at first, then almost everyone joined in. Everyone except the kids that she had beat up. They sat in stunned silence, knowing that this day marked a change for us all.

Source: //gallaudet.edu/englishworks
e. She is Josie's sister
5. What happened that day?
a. Josie's helped her brother
b. Tommy took Ginny's glasses
c. Josie rescued Ginny from bullying
d. Tommy attacked Ginny
e. Tommy insulted Josie
6. Which of the following statements is false?
a. Tommy took Ginny's glasses
b. Josie roughed Tommy up for taking Ginny's glasses
c. Tommy finally asked Ginny's apology
d. Josie was angry for Tommy's behavior
e. Tommy's friends were angry because Ginny hit back
7. Now they had a new angle for tormenting me.
What is the suitable word to replace the underlined word?
a. killing
b. making
c. reaching
d. tempting
e. insulting
8. She held the glasses up as if to protect them and looked panicked until she made eye contact with me. 'Josie! Here!' I screamed, gesturing that she throw me the glasses.
What does the underlined word 'she' refer to?
a. Josie
b. Paul
c. Ginny
d. Tommy
e. Another student

## The text is for questions number 11-13

 Text 2Two friends were travelling on the same road together when they came face to face with a bear. One, in great fear, and without a thought of his companion, climbed into a tree and hid. The other, seeing that single-handed, he was no match for the bear, threw himself on the ground and feigned death, for he had heard that a bear would not touch a dead body.
11. Where is the setting of the story above?
a. At a zoo
b. In a cage
c. In a wood
d. On a tree
e. On a ground
12. How did the first traveler hide himself from the bear?
a. He climbed a tree and hid among the leaves
b. He hid behind a tree
9. What paragraph is the complication?
a. 1
b. 5
c. 6
d. 7
e. 8
10. What paragraph is the resolution?
a. 8
b. 7
c. 6
d. 5
e. 2

The bear approached him, sniffing at his nose, ears, but the man, with great courage, held his breath and kept still, and at length the bear, supposing him to be dead, walked slowly ahead.

Therefore, the bear went away. Then, the fellow in the tree came down to his friend and laughed, "What was the bear whispered to you?" he said. "He told me," said the other, "Never trust a friend who deserts you at a pinch."
c. He ran away and left his friend
d. He threw himself on the ground
e. He went to a cave
13. What is a moral of the story?
a. A real friend will never leave his friend even in difficult times
b. Don't mess up with a bear
c. It's better for you to have a trick of hiding

The text is for questions number 14-16
Text 3
Once upon a time, there lived a group of mice under the tree in peace. However, a group of elephants crossing the jungle unknowingly destroyed the home of the rats. Many of them were even crushed to death.

Then the king of rat requested the elephant chief to guide his herd to another route. Therefore, the lives of rats were saved.

One day, elephant hunters came to the jungle and trapped a group of elephants in
14. Who destroyed the homes of all rats?
a. A group of mice
b. The hunter
c. A group of elephant
d. Elephant's herd
e. Elephant hunters
15. Which of the following statements is true?
a. The elephants were the pets of the hunters before the hunters trapped them
b. None of the rats were hurt when the elephants damage their homes

## The text is for questions number 17-26

## Text 4

Joseph Nagel slumped forward, head in hands.
'My God', he groaned. Elise snapped off the car audio. 'Calm down, Joseph.'
d. Pretend to be dead when you come face to face with a bear
e. Always bring a company when you're traveling away
huge nets. Suddenly the elephant king remembered the king of rats and asked for help.

The rat king immediately took his entire group of rats and they cut open the nets, which had trapped the elephant herd. The elephants were set free. They danced joyfully and thanked the rats.
c. The elephants purposely destroyed the home of the rats
d. The hunters trapped the elephants in narrow nets
e. The elephants expressed their gratitude for the rats' help
16. A group of elephants crossing the jungle unknowingly destroyed the home of rats.
What is the suitable word to replace the underlined word?
a. unintentionally
b. unluckily
c. unbelievably
d. unfortunately
e. undesirably
'That's four straight day since we got here. What do you think we're down now? Sixty? Eighty thousand?'
'It'll come back.' calmed her wife.
'We should have sold everything after the first twenty. That would have been an acceptable loss. Given that we were too stupid to sell when we were actually ahead.' Joseph felt that raising note in his voice, told himself to calm down. 'I did say we should get out, didn't I? Frankly it was irresponsible committing all that money"-shut up, shut up-"not to mention the unseemliness of buying in when you did-" oh God...

His wife spoke icily, 'I didn’t hear you complain when we were ahead.'
'All right, but that's not the point. The point is ...'

## 'What?'

'The point is ...' but he had forgot what he had thought and sat blinking confused about the money matter. Elise got out of the car.
'Let's go for swim, shall we, Darcy?' she opened the rear door for their daughter and led her away.

Glumly, Joseph watched them walk hand in hand down through the scrub oaks and pines to the sandy edge of the kettle pond. He gathered the two bags from their shopping expedition into his lap but remained in the car, heavily immobile,

Money, for the first time in their lives they had some. It had come from the sale of an apartment Elise had inherited. Though not
much, under a quarter of a million dollars after estate taxes, Joseph thought about to basis a dream of real riches. It was right after the September 11 attack, when the
markets reopened. Over ten days, as the Dow reeled and staggered, Elise bought and bought. Elise icily resolute to buy more, while Joseph flailed around her, wrenched between his fearful certainty that the entire capitalist system was about to collapse. His guilty terror of being punished by the gods for attempting to profit from disaster, and his rising excitement, as the tide turned and he could see on the Schwab web page the figure in the Total Gain column swelling day after day based on her instincts. An immense contentment had filled him.

But then the tide had turned again. How exhausting it all was. How he hated it! It was though, in investing the money, Elise had unwittingly attached him by the tiring to see collective psyche that never rested. Having paid no attention to financial matters before, he now appeared to be enslaved by them. When the Dow or NASDAQ went down, he was dragged with them, unable to enjoy a beautiful day, a good meal, or even his nightly game of chequers with his daughters. Almost worse, on the rare occasions when the indices went up, a wild happiness would seize him, no matter what awful things around him.

Wearily, Joseph climbed out of car. In the kitchen, as he unpacked the grocery bags, he made a conscious effort to fight off his gloom. Four days into the vacation, and he had yet to relax. It was absurd. The weather was perfect, the rented house peaceful, the freshwater pond it stood by clear as glass, the ocean beaches beyond it magnificent. And at three hundred dollars a day for the house alone he could not afford not to be enjoying himself. . . .
17. Joseph and his family spent their holiday on ...
a. mall
b. stock exchange
c. radio studio
d. beach
e. motel
18. Why did Joseph's wife turn down the radio?
a. The program was end
b. No radio signal was found
c. The radio broke
d. The news troubled her husband
e. Her daughter didn't like the program
19. Joseph and his family has spent holiday in that place for .
a. one day
b. two days
c. three days
d. four days
e. five days
20. The thing below troubled the couple ...
a. the holiday
b. the radio
c. the car
d. the stock
e. the money
21. All right, but that's not the point. (P.1).

The underlined word refers to ...
a. buying the shares
b. selling the shares
c. investing money on shares
d. losing the shares
e. keeping the shares
22. His guilty terror of being punished by the gods for attempting to profit from disaster. (P.3)
The underlined word refers to ...
a. selling property
b. buying shares
c. dreaming of being rich
d. September 11 attack
e. Arguing with his wife
23. The fourth paragraph tells about ...
a. the tiring work Joseph did
b. the reckless mind in investing money
c. Down and NASDAQ stock exchange
d. money always be a problem
e. the exhausting money matter
24. In the second paragraph, Joseph did the following, except ...
a. get out of his car
b. put the shopping bags in his lap
c. sit in the car seat
d. took the shopping bags
e. looked at his wife and his daughters
25. He now appeared to be enslaved by them (P.4)

The underlined word refers to ...
a. the tide
b. money
c. tax
d. financial matters
e. earning money
26. How much did they need to pay for the house rent if they end their vacation that day?
a. One hundred dollars
b. Three hundred dollars
c. A thousand and two hundred dollars
d. A thousand and five hundred dollars
e. Two thousand and three hundred dollars

## The text is for questions number 27-30

## Text 5

A farmer came across a bird with a broken wing. He picked it up, took it home and looked after it lovingly, even though his wife complained bitterly about his wasting too much time on the creature.

After some time, the wing mended and, because the bird did not want the farmer to have kept on arguing with his wife all the time, it decided to go back to its nest.

When the farmer discovered that the bird was gone, he was so upset that he went out to look for it. Eventually, he found it again, and was greeted happily by the whole family of the bird. As a sign of their thanks for his care and attention, the birds gave him a little box, and told him not to open it until he got home.

To his surprise, the farmer found the box full of precious stones. When his wife saw them, she decided that she too deserved a reward, and she went to see the birds. The birds gave her a little casket; but this one was full of devils. The devils jumped on her as soon as she opened the casket and chased her away.

Left alone, the farmer went to live near his friend, the bird. There he built a hut of perfumed wood; and the birds decorated it with flowers of every kind.
27. The farmer's new hut was ...
a. well furnished
b. built by the birds
c. a gift from the bird
d. decorated luxuriously
e. built of perfumed wood
28. What do we learn from the text?
a. A gift shows kindness
b. Sufferings bring happiness
c. Arguing makes you distressed
d. A good deed deserves a reward
e. Having no heart makes you isolated
29. What is the main information discussed in the third paragraph?
a. The bird left the farmer
b. The birds welcomed the farmer
c. The farmer got a little casket from the birds
d. The farmer was so angry and went out to find the bird
e. The farmer was happy having got a box of precious stones
30. The word 'discovered' (P.3) means ...
a. found out
b. proved
c. saw
d. invented
e. believed

## Reading Comprehension Test

## Choose the correct answer!

## The text is for questions number 1-5

Text 1
To be good consumers, it is necessary for us to understand why prices and productions of goods are always changing. This following information is simple law to help us understand it. When prices are low, people will buy more, and when prices are high, they will buy less. Everyone knows this, but at the same time, producers want higher prices for their goods when they make more goods. How can we find the best prices for goods? The law of Supply and Demand us the answer to this question.

According to this law, changes in the prices of goods cause changes in supply and demand. An increase in the price of goods causes an increase in the supply -the number of goods that producers make. Producers will make more goods when they can have higher prices for goods. At the same time, an increase in the price of the goods cause a decrease in demand -the number of goods the consumers buy. This is because people buy less when the price is high. Conversely, a decrease in the prices causes an increase in demand and a decrease in supply.

Business firms look at both supply and demand when they make decisions about prices and production. They look for the equilibrium point where supply equals demand. The equilibrium point is a point where the supply curve and the demand curve intersect. At this point, the number of goods produced will all be bought by the consumers at a certain price. This is called equilibrium price. If the producers increase the price, or if they produce more, the consumer will not buy all of the goods. On the other hand, if they make fewer goods, there will be a shortage -more demand than supply- and the price will go up.

According to the Law of Supply and Demand, the equilibrium price is the best price for the goods. The consumers and the producers will agree on this price because it is the only price that helps them both equally.

1. As consumers, we need to know ... of prices and productions of goods.
a. flow
b. fluctuation
c. transformation
d. progression
e. effect
2. In the Law of Supply and Demand, the higher the price is, ...
a. the less the consumers buy
b. the more the consumers is
c. the higher the production is
d. the less the production is
e. the more the consumers demand
3. When the supply curve and the demand curve do not pass across each other, ...
a. an equilibrium point is achieved
b. the demand is higher than the supply
c. the supply is same as the demand
d. there is no equilibrium point
e. a shortage of supply occurs
4. The word 'shortage' in the paragraph 3 means ...
a. enough
b. lack
c. inequality
d. unfair
e. difference
5. The last paragraph tells us that ...
a. changes in the prices of goods causes changes in supply and demand
b. the best price for the goods is counted from equilibrium point
c. if the producers produce more, the consumers will not buy all of the goods
d. the equilibrium point happens when supply equals demand
e. the price will go higher if the demand goes up

## The text is for questions number 6-12

## Text 2

## Advantages and Disadvantages of Lecturing Methods

Lecturing as a method of teaching is so frequently under attack today from educational psychologists and by students that some justification is needed to retain it. Critics believe that it results in passive methods of learning which tend to be less effective than those which fully engage the learner. They also maintain that students have no opportunity to ask questions and must all receive the same content at the same pace, that they are exposed only to one teacher's interpretation of subject matter which will inevitably biased and that, anyway, few lectures rise above dullness. Nevertheless, in a number of inquiries pessimistic assessment of lecturing as a teaching method proves not to be general among students although they do fairly often comment in poor lecturing techniques.

Students praise lectures which are clear, orderly synopses in which basic principles are emphasized but dislike too numerous digressions or lectures which consists in part of the contents of a textbook. Students of science subjects that a lecture is a good way to introduce a new subject, putting it in its context, or to present material not yet included in the books. They also appreciate its value as a period of discussions of problems and possible solutions with their lecturer. They do not look for inspiration -this is more commonly mentioned by teachers- but art students look for originality in lectures. Medical and dental students, who have reported on teaching methods, or specifically lecturing, suggest that there should be fewer lectures or that, at the least, more would be unpopular.

Adapted from Teaching Factual Writing
6. The purpose of the text above is ...
a. to explain a social process
b. to persuade the reader to do something
c. to discuss two different views
d. to describe a phenomena
e. to entertain the reader
7. In the first paragraph, the writer states that ...
a. lecturing method is not very effective for students
b. many critics appreciate the lecturing method
c. students gain much advantage from the lecturing method
d. lecturing method needs development
e. lecturing method is objective
8. the word 'engage' in paragraph 1 has the synonym with ...
a. teach
b. equip
c. involve
d. relate
e. exclude
9. According to the writer, some say the disadvantages of lecturing are mentioned below, except ...
a. No chance for students to ask questions
b. Teacher's subjective interpretation
c. Same content in the same pace
d. Much space for discussion
e. Too textbook oriented
10. Students of science subjects like the lecture that
a. giving material outside the textbook
b. is long and textbook-oriented
c. is only based on teacher's interpretation
d. gives them much inspiration
e. is out of the discussed subject
11. Medical or dental students prefer the lecture that ...
a. is unpopular
b. is short but effective
c. is inspirational
d. gives much new knowledge
e. gives much reference
12. The antonym of the word 'orderly' in paragraph 2 is ...
a. arranged
b. organized
c. illogical
d. uninspiring
e. ordinary

## The text is for question number 13-20

## Text 3

## Are Game as Important for Adults as They are for Children?

Some people think that games should play important role in a life of every person, including adults. However, others think that games should be left for children. There are arguments for and against both positions, but in my opinion everyone should have a hobby and playing games is a good one.

One of the most cited reason against playing games in adulthood is a lack of time. Most of the games are very time-consuming and to play games most adults have to sacrifice time they spend with their family. Often games lead to problem with employer, because a person spends too much time thinking about a game, not a specific work he has to do. I have a friend who was fascinated by recreating great historical events like battles. He spent all his free time on studying old uniforms and rules of conduct. Even on work, he searched for information on internet. His productivity declined sharply and as soon as his boss found out about his passion, he was fired.

On the other hand, many games are good for entertainment in spare time. For example, it's much better to play in role-playing game than to spend time watching numerous soap operas on TV. Some games are very good for health, for example, followers of Tolkien spend a lot of time learning to use swords and bows.

Some games are very good at improving brainpower. For example, many experts agree that chess, reverse and other intellectual games enhance attention. Also, person who actively play chess stand less chance to get Alzheimer's disease comparing to average population.

In addition, it is easy to bridge a generation gap by playing games. Games help to bring people together. Many families I know that like to play games are very well-knit families. Parents spend much more time together with children if they have similar interests.

Adults should not spend all their time thinking of and playing games. They should balance time they spend on work and with their families; with time they spend playing games. If they have children that share their interest in playing games, it is extremely good. In conclusion, I want to say that in my opinion playing games is a very good hobby.

Adapted from http://www.urch.com/
13. One of the people strongest reasons not to play games is ...
a. the physical effect of the game
b. lack of time
c. a lot of TV programs
d. letting the children play
e. too many family affairs
14. The worst effect of some games for the employer is ...
a. those games are dangerous
b. those games spend a lot of money
c. those games decrease productivity
d. those games please them too much
e. those games are too childish
15. The word 'fascinated' in paragraph 2 can be best replaced by ...
a. affected
b. arrested
c. addicted
d. startled
e. caught
16. In paragraph 3 the writer states that ...
a. some people need more TV programs
b. role-playing game is worthless
c. television offers many games to play
d. several games keep our condition fit
e. playing swords and bows are harmful for children
17. Below are intellectual games, except ...
a. chess
b. scrabble
c. pinball
d. reverse
e. bridge
18. Below is not the good effect of the game according to the writer ...
a. making happy family
b. developing creativity
c. decreasing risk of getting ill
d. entertaining people
e. spending less money
19. Parents who spend much time playing games with their family will look ...
a. too childish
b. happier
c. foolish
d. uninteresting
e. weak
20. the word 'they' in the last paragraph refers to ...
a. children
b. games
c. adults
d. families
e. parents

## The text is for questions number 21-23

Text 4
Nowadays, the police have been applying the new regulation concerning the use of seat belts. In European countries, this regulation has been applied for a long time. However, this new regulation has become controversial and is an interesting topic to discuss. Here are some of the arguments.

The use of seat belt has proven to reduce the risk of injury or death in an accident. Seat belt has become a standard competent in cars.

The research shows that most car accident will cause an injury to the head. Frequently, drivers of the passengers driving without seat belts die because of this. By wearing the seat belts, the injury will not happen since the seat belts restrain our body.

Unfortunately, many cars, especially the old ones, don't have seat belts. This is because the traffic conditions in the past were unlike the recent traffic conditions. The designer of old cars didn't consider a seat belt as an important part.

The seat belt is one of the many ways to reduce the risk of car accidents. It doesn't mean that we are completely safe by wearing the seat belts. In short, our safety depends on ourselves.
21. What is the writer intention?
a. To describe the use of seat belts
b. To present point of view about the new regulation if the use of seat belts
c. To persuade the readers to use seat belts
d. To tell the readers about the use of seat belt
e. To explain about the use of seat belts
22. Which is not true according to the text?
a. The regulation of the use of seat belts has been applied for a long time
b. The regulation of the use of seat belts makes controversial
c. The use of seat belts can reduce the risk of car accident
d. Our safety depends on ourselves
e. The old cars don't have seat belts
23. "Frequently, drivers or the passengers driving without seat belts die because of this" (par 3). The underlined word refers to ...
a. an injury to the head
b. driving without seat belts
c. die
d. drivers
e. the car accident

## The text is for questions number 24-27

## Text 5

## Controversy of Harness Solar Energy

We often hear about solar car, solar heating or solar batteries. However, will solar energy ever be a major source of energy for industrial societies? The solar energy cheaper than any other fossil fuel because we can get the abundant source from the sun.

Sunny desert area, $50 \%$ of the sun's radiation that reaches the ground could be used to produce electricity for business and industries, to provide heat, light and hot water for homes. Experimental solar ponds can be produced by hot water to drive generators.

Unfortunately, solar energy can only be exploited in bright light. Its greatest potential therefore is in hot countries that have clear skies for most of the year, while most houses are not always in the sunniest part of the world. In addition, to harness the solar power, solar cells are needed to
convert the sunlight directly into electricity. Solar cells are very cheap to turn, but relatively expensive to buy and many people can't afford it.

Solar energy is useful and non-polluted energy but solar cells, the main device to harness the sun's energy, are still very expensive.
24. The problem in harness solar energy is ...
a. solar energy is useful and non-polluted source of energy
b. the main important device to harness solar energy is still very expensive
c. solar energy will be a major source of energy for industrial societies
d. solar energy is cheaper than any other fossil fuel
e. we can get the abundant source from the sun
25. "...We can get abundant source from the sun."

The word abundant means ...
a. big
b. little
c. various
d. plentiful
e. meaningful
26. The communicative purpose of the text is to ...
a. amuse or entertainment the reader
b. present two point of views about an issue
c. explain how a phenomenon takes place
d. give an evaluation on harnessing solar energy
e. explain the process in harness solar energy
27. The argument point is ...
a. to harness the solar energy we need solar cells
b. the greatest potential is only in hot countries
c. we can depend the energy on sunlight
d. solar energy is cheaper than any solar fossil fuels
e. solar energy can only be exploited in bright light

## The text is for questions number 28-30

Text 6
Many people like to live in a city although it is often very crowded. There are many jobs available. Therefore, it is easier to plan for a living. There are also more opportunity for education and recreation. If people get sick, there is always a hospital or a clinic nearby. There are markets, supermarkets, or department stores that people can choose to go shopping. In addition, all means of transportation are available. People can go by bus, taxi, train, or plane. For these reasons, people prefer living in a city to a village.

Some other people prefer living in a village to a city. A village is not very crowded and noisy. People do not have to rush to work. They may do whatever they want. They do not have to go to school for a long period. They go to the elementary school just to be able to read and read. This is enough for them to survive. They do not care much about time. Today and tomorrow are just the same.

However, not every villager enjoys the life in a village. Some of them find that living in a village is quite old-fashioned. They want to improve their lives. They move to the big city to improve their lives. Some of them are successful, but many of them are not. For those who are not successful, living in a big city is really terrible. They are jobless and homeless because they do not have skills needed in urban area. They live in the slums of the city.
28. What is the main idea of paragraph 1 ?
a. Living in a city is very crowded
b. The reasons why people prefer living in a city
c. Many jobs are available in the city
d. Means of transportation in a city
e. Jobs in a city
29. People like to live in a city because ...
a. it is often very busy
b. there are a lot of shopping centers
c. they can get money easier
d. it is easy to earn a living
e. all facilities are available there
30. Some of them find that the rural life is quite old-fashioned (par 3).

The word 'them' refers to ...
a. villagers
b. rural lives
c. their lives
d. workers
e. employers

## Narrative

## Writing Test

Name
:
Date:
Class /No :

## Directions:

$\checkmark$ Continue the following paragraphs as creative as possible into a proper story using at least 450 words
$\checkmark$ Dictionary is allowed

It was a beautiful Sunday morning when, finally, Lucinda decided to leave Collin and marry Carl. She was sitting in Golden Flower Park while recalling what Collin had done to her and her family.

Five years ago, Collin met Lucinda and decided to hire her as his secretary. Collin came from a wealthy family. He was an intelligent man yet he was a bad-tempered man. He was interested in Lucinda because $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
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$\qquad$
$\qquad$

## Writing Test

Directions:
$\checkmark$ Make a discussion text of 450 words at least containing the arguments for and against the issue.
$\checkmark$ Dictionary is allowed
$\checkmark$ Choose one of the issues below:
$>$ Is homework necessary for students?
$>$ Should students wear uniform in the school?
$>$ The freedom to use cellular phone in the school
$>$ Should smoking be banned?

## APPENDIX 2

The answer keys for the first reading test:

1. D
2. A
3. D
4. D
5. B
6. E
7. E
8. $A$
9. C
10. B
11. C
12. A
13. A
14. C
15. E

The answer keys for the second reading test:

1. B
2. A
3. D
4. B
5. B
6. C
7. A
8. C
9. D
10. A
11. A
12. C
13. B
14. C
15. C
16. A
17. D
18. B
19. D
20. D
21. C
22. B
23. E
24. A
25. D
26. C
27. E
28. D
29. B
30. A
31. D
32. C
33. E
34. B
35. C
36. B
37. B
38. A
39. B
40. D
41. B
42. A
43. B
44. E

## APPENDIX 3

The reliability computation of the first try-out

| No. | $x$ | $x^{2}$ |
| :---: | :---: | :---: |
| 1 | 16 | 256 |
| 2 | 9 | 81 |
| 3 | 18 | 324 |
| 4 | 15 | 225 |
| 5 | 26 | 676 |
| 6 | 11 | 121 |
| 7 | 26 | 676 |
| 8 | 14 | 196 |
| 9 | 29 | 841 |
| 10 | 17 | 289 |
| 11 | 27 | 729 |
| 12 | 26 | 676 |
| 13 | 13 | 169 |
| 14 | 25 | 625 |
| 15 | 25 | 625 |
| 16 | 21 | 441 |
| 17 | 20 | 400 |
| 18 | 14 | 196 |
| 19 | 23 | 529 |
| 20 | 22 | 484 |
| 21 | 29 | 841 |
| 22 | 24 | 576 |
| 23 | 17 | 289 |
| 24 | 5 | 25 |
| 25 | 23 | 529 |
| 26 | 10 | 100 |
| 27 | 12 | 144 |
| 28 | 19 | 361 |
|  | $\Sigma x=536$ | $\Sigma x^{2}=11424$ |

$$
\begin{aligned}
V & =\frac{n \cdot \Sigma x^{2}-(\Sigma x)^{2}}{n(n-1)} \\
& =\frac{28.11424-287296}{28.27} \\
& =\frac{319872-287296}{756} \\
& =\frac{32576}{756} \\
& =43.09
\end{aligned}
$$

$$
\begin{aligned}
r & =\frac{n}{n-1}\left(1-\frac{M(n-M)}{n . V a r}\right) \\
& =\frac{30}{30-1}\left(1-\frac{19.14(30-19.14)}{30(43.09)}\right) \\
& =\frac{30}{29}\left(1-\frac{207.86}{1292.7}\right) \\
& =1.04(1-0.16) \\
& =1.04(0.84) \\
& =0.87
\end{aligned}
$$

## The reliability computation of the second try-out

| No. | $\boldsymbol{x}$ | $\boldsymbol{x}^{\mathbf{2}}$ |
| :---: | :---: | :---: |
| 1 | 11 | 121 |
| 2 | 9 | 81 |
| 3 | 18 | 324 |
| 4 | 18 | 324 |
| 5 | 10 | 100 |
| 6 | 10 | 100 |
| 7 | 20 | 400 |
| 8 | 12 | 144 |
| 9 | 27 | 729 |
| 10 | 25 | 625 |
| 11 | 23 | 529 |
| 12 | 12 | 144 |
| 13 | 26 | 676 |
| 14 | 20 | 400 |
| 15 | 24 | 576 |
| 16 | 23 | 529 |
| 17 | 17 | 289 |
| 18 | 22 | 484 |
| 19 | 14 | 196 |
| 20 | 26 | 676 |
| 21 | 14 | 196 |
| 22 | 16 | 256 |
| 23 | 25 | 625 |
| 24 | 21 | 441 |
| 25 | 12 | 144 |
| 26 | 19 | 361 |
| 27 | 14 | 196 |
|  | $\boldsymbol{\Sigma x} \boldsymbol{x} \mathbf{4 8 8}$ | $\boldsymbol{\Sigma} \boldsymbol{x}^{2}=\mathbf{9 6 6 6}$ |

$$
\begin{aligned}
V & =\frac{n \cdot \Sigma x^{2}-(\Sigma x)^{2}}{n(n-1)} \\
& =\frac{27.9666-238144}{27.26} \\
& =\frac{260982-238144}{702} \\
& =\frac{22838}{702} \\
& =32.53 \\
r= & \frac{n}{n-1}\left(1-\frac{M(n-M)}{n . V a r}\right) \\
= & \frac{30}{30-1}\left(1-\frac{18,07(30-18.07)}{30(32.52)}\right) \\
= & \frac{30}{29}\left(1-\frac{18.07(11.93)}{975.9}\right) \\
= & 1.04(1-0.022) \\
= & 1.04(0.78) \\
= & 0.81
\end{aligned}
$$

## APPENDIX 4

The Students' Scores of the First Reading and Writing Test of XIIA2 Class

| Students' <br> Number | Scores |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Writing |  |  |  |
|  | Reading | R1 | R2 | TS $=\frac{R 1+R 2}{2}$ |
| 1 | 61 | 63 | 68 | 65.5 |
| 2 | 67 | 71 | 79 | 75 |
| 3 | 70 | 66 | 82 | 74 |
| 4 | 70 | 80 | 87 | 83.5 |
| 5 | 73 | 69 | 73 | 71 |
| 6 | 73 | 70 | 78 | 74 |
| 7 | 88 | 64 | 72 | 68 |
| 8 | 70 | 80 | 82 | 81 |
| 9 | 94 | 84 | 88 | 86 |
| 10 | 70 | 67 | 70 | 68.5 |
| 11 | 55 | 64 | 69 | 66.5 |
| 12 | 64 | 66 | 79 | 72.5 |
| 13 | 70 | 71 | 80 | 75.5 |
| 14 | 82 | 81 | 86 | 83.5 |
| 15 | 61 | 57 | 62 | 59.5 |
| 16 | 58 | 69 | 69 | 69 |
| 17 | 73 | 72 | 75 | 73.5 |
| 18 | 70 | 65 | 73 | 69 |
| 19 | 70 | 79 | 73 | 76 |
| 20 | 91 | 82 | 80 | 81 |
| 21 | 79 | 73 | 73 | 73 |
| 22 | 82 | 75 | 70 | 72.5 |
| 23 | 73 | 79 | 72 | 75.5 |
| 24 | 82 | 71 | 71 | 71 |
| 25 | 82 | 75 | 79 | 77 |
| 26 | 79 | 70 | 81 | 75.5 |
| 27 | 61 | 68 | 73 | 70.5 |
| 28 | 76 | 75 | 83 | 79 |

Notes:
R1 = Rater 1
R2 $=$ Rater 2
TS = Total score of writing

The Students' Scores of the First Reading and Writing Test of XIIS1 Class

| Students' <br> Number | Scores |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Reading | Writing |  |  |
|  |  | R1 | R2 | $\mathrm{TS}=\frac{R 1+R 2}{2}$ |
| 1 | 76 | 73 | 84 | 78.5 |
| 2 | 76 | 63 | 61 | 62 |
| 3 | 82 | 84 | 88 | 86 |
| 4 | 73 | 70 | 78 | 74 |
| 5 | 73 | 73 | 77 | 75 |
| 6 | 85 | 80 | 84 | 82 |
| 7 | 64 | 72 | 79 | 75.5 |
| 8 | 79 | 81 | 86 | 83.5 |
| 9 | 76 | 79 | 82 | 80.5 |
| 10 | 73 | 60 | 61 | 60.5 |
| 11 | 58 | 64 | 70 | 67 |
| 12 | 61 | 67 | 62 | 64.5 |
| 13 | 67 | 62 | 67 | 64.5 |
| 14 | 70 | 61 | 69 | 65 |
| 15 | 67 | 65 | 73 | 69 |
| 16 | 70 | 67 | 73 | 70 |
| 17 | 73 | 73 | 80 | 76.5 |
| 18 | 67 | 77 | 71 | 74 |
| 19 | 85 | 82 | 85 | 83.5 |
| 20 | 76 | 78 | 76 | 77 |
| 21 | 70 | 73 | 73 | 73 |
| 22 | 67 | 63 | 69 | 66 |
| 23 | 64 | 69 | 75 | 72 |
| 24 | 85 | 73 | 83 | 78 |
| 25 | 70 | 74 | 82 | 78 |
| 26 | 85 | 78 | 85 | 81.5 |
| 27 | 70 | 61 | 63 | 62 |
| 28 | 73 | 74 | 83 | 78.5 |

Notes:
R1 = Rater 1
R2 $=$ Rater 2
TS = Total score of writing

The Students' Scores of the Second Reading and Writing Test of XIIA2 Class

| Students' <br> Number | Scores |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Reading | Writing |  |  |
|  |  | R1 | R2 | $\mathrm{TS}=\frac{R 1+R 2}{2}$ |
| 1 | 70 | 71 | 70 | 70.5 |
| 2 | 58 | 61 | 60 | 60.5 |
| 3 | 70 | 71 | 71 | 71 |
| 4 | 76 | 67 | 70 | 68.5 |
| 5 | 73 | 72 | 77 | 74.5 |
| 6 | 67 | 68 | 69 | 68.5 |
| 7 | 79 | 73 | 72 | 72.5 |
| 8 | 76 | 67 | 77 | 72 |
| 9 | 79 | 70 | 75 | 72.5 |
| 10 | 67 | 70 | 70 | 70 |
| 11 | 61 | 67 | 68 | 67.5 |
| 12 | 70 | 70 | 75 | 72.5 |
| 13 | 64 | 63 | 67 | 65 |
| 14 | 76 | 76 | 74 | 75 |
| 15 | 61 | 65 | 68 | 66.5 |
| 16 | 67 | 70 | 70 | 70 |
| 17 | 73 | 68 | 65 | 66.5 |
| 18 | 76 | 67 | 68 | 67.5 |
| 19 | 79 | 71 | 72 | 71.5 |
| 20 | 85 | 78 | 76 | 77 |
| 21 | 70 | 66 | 67 | 66.5 |
| 22 | 70 | 67 | 68 | 67.5 |
| 23 | 79 | 70 | 70 | 70 |
| 24 | 76 | 74 | 71 | 72.5 |
| 25 | 67 | 68 | 75 | 71.5 |
| 26 | 73 | 71 | 71 | 71 |
| 27 | 58 | 65 | 67 | 66 |
| 28 | 73 | 68 | 69 | 68.5 |

Notes:
R1 = Rater 1
R2 $=$ Rater 2
TS = Total score of writing

The Students' Scores of the Second Reading and Writing Test of XIIS1 Class

| Students' Number | Scores |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Reading | Writing |  |  |
|  |  | R1 | R2 | TS $=\frac{R 1+R 2}{2}$ |
| 1 | 70 | 76 | 74 | 75 |
| 2 | 73 | 73 | 77 | 75 |
| 3 | 70 | 72 | 77 | 74.5 |
| 4 | 76 | 75 | 80 | 77.5 |
| 5 | 79 | 72 | 75 | 73.5 |
| 6 | 76 | 71 | 77 | 74 |
| 7 | 70 | 69 | 74 | 71.5 |
| 8 | 82 | 73 | 80 | 76.5 |
| 9 | 67 | 63 | 65 | 64 |
| 10 | 79 | 73 | 78 | 75.5 |
| 11 | 70 | 74 | 78 | 76 |
| 12 | 76 | 73 | 79 | 76 |
| 13 | 73 | 74 | 79 | 76.5 |
| 14 | 67 | 73 | 71 | 72 |
| 15 | 73 | 73 | 77 | 75 |
| 16 | 70 | 73 | 73 | 73 |
| 17 | 85 | 81 | 82 | 81.5 |
| 18 | 73 | 75 | 80 | 77.5 |
| 19 | 64 | 75 | 75 | 75 |
| 20 | 76 | 71 | 72 | 71.5 |
| 21 | 79 | 72 | 77 | 74.5 |
| 22 | 73 | 78 | 82 | 80 |
| 23 | 67 | 68 | 71 | 69.5 |
| 24 | 76 | 72 | 72 | 72 |
| 25 | 64 | 70 | 69 | 69.5 |
| 26 | 67 | 69 | 72 | 70.5 |
| 27 | 73 | 69 | 69 | 69 |
| 28 | 76 | 75 | 71 | 73 |

Notes:
R1 = Rater 1
R2 $=$ Rater 2
TS = Total score of writing

## APPENDIX 5

Item Difficulty of the First Try Out

| No. | Right Answer | Wrong Answer | IF | Interpretation |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 19 | 11 | 0.68 | Moderate |
| 2 | 17 | 13 | 0.61 | Moderate |
| 3 | 25 | 5 | 0.89 | Easy |
| 4 | 19 | 11 | 0.68 | Moderate |
| 5 | 20 | 10 | 0.71 | Easy |
| 6 | 15 | 15 | 0.54 | Moderate |
| 7 | 25 | 5 | 0.89 | Easy |
| 8 | 22 | 8 | 0.79 | Easy |
| 9 | 20 | 10 | 0.71 | Easy |
| 10 | 19 | 11 | 0.68 | Moderate |
| 11 | 12 | 18 | 0.43 | Moderate |
| 12 | 15 | 15 | 0.54 | Moderate |
| 13 | 23 | 7 | 0.82 | Easy |
| 14 | 23 | 7 | 0.82 | Easy |
| 15 | 14 | 16 | 0.50 | Moderate |
| 16 | 18 | 12 | 0.64 | Moderate |
| 17 | 19 | 11 | 0.68 | Moderate |
| 18 | 19 | 11 | 0.68 | Moderate |
| 19 | 14 | 16 | 0.50 | Moderate |
| 20 | 20 | 10 | 0.71 | Easy |
| 21 | 10 | 20 | 0.36 | Difficult |
| 22 | 19 | 11 | 0.68 | Moderate |
| 23 | 21 | 9 | 0.75 | Easy |
| 24 | 12 | 18 | 0.43 | Moderate |
| 25 | 23 | 7 | 0.82 | Easy |
| 26 | 18 | 12 | 0.64 | Moderate |
| 27 | 18 | 12 | 0.64 | Moderate |
| 28 | 18 | 12 | 0.64 | Moderate |
| 29 | 10 | 20 | 0.36 | Difficult |
| 30 | 9 | 21 | 0.32 | Difficult |

## Item Difficulty of the Second Try Out

| No. | Right Answer | Wrong Answer | IF | Interpretation |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 13 | 17 | 0.50 | Moderate |
| 2 | 21 | 9 | 0.81 | Easy |
| 3 | 9 | 21 | 0.35 | Difficult |
| 4 | 9 | 21 | 0.35 | Difficult |
| 5 | 21 | 9 | 0.81 | Easy |
| 6 | 18 | 12 | 0.69 | Moderate |
| 7 | 17 | 13 | 0.65 | Moderate |
| 8 | 8 | 22 | 0.31 | Difficult |
| 9 | 13 | 17 | 0.50 | Moderate |
| 10 | 16 | 14 | 0.62 | Moderate |
| 11 | 17 | 13 | 0.65 | Moderate |
| 12 | 9 | 21 | 0.35 | Difficult |
| 13 | 17 | 13 | 0.65 | Moderate |
| 14 | 15 | 15 | 0.58 | Moderate |
| 15 | 14 | 16 | 0.54 | Moderate |
| 16 | 21 | 9 | 0.81 | Easy |
| 17 | 17 | 13 | 0.65 | Moderate |
| 18 | 12 | 18 | 0.46 | Moderate |
| 19 | 19 | 11 | 0.73 | Easy |
| 20 | 22 | 8 | 0.85 | Easy |
| 21 | 20 | 10 | 0.77 | Easy |
| 22 | 8 | 12 | 0.31 | Difficult |
| 23 | 14 | 16 | 0.54 | Moderate |
| 24 | 18 | 12 | 0.69 | Moderate |
| 25 | 17 | 13 | 0.65 | Moderate |
| 26 | 22 | 8 | 0.85 | Easy |
| 27 | 8 | 22 | 0.31 | Difficult |
| 28 | 19 | 11 | 0.73 | Easy |
| 29 | 18 | 12 | 0.69 | Moderate |
| 30 | 18 | 12 | 0.69 | Moderate |

## APPENDIX 6

Item Discrimination of the First Try Out

| No. | Right Upper | Right Lower | D | Interpretation |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 11 | 8 | 0.21 | Satisfactory |
| 2 | 10 | 7 | 0.21 | Satisfactory |
| 3 | 14 | 11 | 0.21 | Satisfactory |
| 4 | 12 | 7 | 0.36 | Satisfactory |
| 5 | 12 | 8 | 0.29 | Satisfactory |
| 6 | 12 | 3 | 0.64 | Good |
| 7 | 14 | 11 | 0.21 | Satisfactory |
| 8 | 13 | 9 | 0.29 | Satisfactory |
| 9 | 13 | 7 | 0.43 | Good |
| 10 | 12 | 7 | 0.36 | Satisfactory |
| 11 | 10 | 2 | 0.57 | Good |
| 12 | 10 | 5 | 0.36 | Satisfactory |
| 13 | 14 | 9 | 0.36 | Satisfactory |
| 14 | 14 | 9 | 0.36 | Satisfactory |
| 15 | 10 | 4 | 0.43 | Good |
| 16 | 12 | 6 | 0.43 | Good |
| 17 | 13 | 6 | 0.50 | Good |
| 18 | 11 | 8 | 0.21 | Satisfactory |
| 19 | 11 | 3 | 0.57 | Good |
| 20 | 12 | 8 | 0.29 | Satisfactory |
| 21 | 7 | 3 | 0.29 | Satisfactory |
| 22 | 13 | 6 | 0.50 | Good |
| 23 | 13 | 8 | 0.36 | Satisfactory |
| 24 | 8 | 4 | 0.29 | Satisfactory |
| 25 | 14 | 9 | 0.36 | Satisfactory |
| 26 | 12 | 6 | 0.43 | Good |
| 27 | 11 | 7 | 0.29 | Satisfactory |
| 28 | 12 | 6 | 0.43 | Good |
| 29 | 8 | 2 | 0.43 | Good |
| 30 | 8 | 1 | 0.50 | Good |

Item Discrimination of the Second Try Out

| No. | Right Upper | Right Lower | D | Interpretation |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 8 | 5 | 0.23 | Satisfactory |
| 2 | 12 | 9 | 0.23 | Satisfactory |
| 3 | 8 | 1 | 0.54 | Good |
| 4 | 6 | 3 | 0.23 | Satisfactory |
| 5 | 13 | 8 | 0.38 | Satisfactory |
| 6 | 12 | 6 | 0.46 | Good |
| 7 | 10 | 7 | 0.23 | Satisfactory |
| 8 | 6 | 2 | 0.31 | Satisfactory |
| 9 | 9 | 4 | 0.38 | Satisfactory |
| 10 | 10 | 6 | 0.31 | Satisfactory |
| 11 | 11 | 6 | 0.38 | Satisfactory |
| 12 | 6 | 3 | 0.23 | Satisfactory |
| 13 | 11 | 6 | 0.38 | Satisfactory |
| 14 | 9 | 6 | 0.23 | Satisfactory |
| 15 | 9 | 5 | 0.31 | Satisfactory |
| 16 | 13 | 8 | 0.38 | Satisfactory |
| 17 | 11 | 6 | 0.38 | Satisfactory |
| 18 | 8 | 4 | 0.31 | Satisfactory |
| 19 | 12 | 7 | 0.38 | Satisfactory |
| 20 | 13 | 9 | 0.31 | Satisfactory |
| 21 | 13 | 7 | 0.46 | Good |
| 22 | 6 | 2 | 0.31 | Satisfactory |
| 23 | 9 | 5 | 0.31 | Satisfactory |
| 24 | 11 | 7 | 0.31 | Satisfactory |
| 25 | 10 | 7 | 0.23 | Satisfactory |
| 26 | 13 | 9 | 0.31 | Satisfactory |
| 27 | 6 | 2 | 0.31 | Satisfactory |
| 28 | 13 | 6 | 0.54 | Good |
| 29 | 12 | 6 | 0.46 | Good |
| 30 | 11 | 7 | 0.31 | Satisfactory |

## APPENDIX 7

## The Computation Table of Pearson R

(First Test)
The Computation Table of Pearson R between Reading Comprehension and Writing Achievement

| No. | X | Y | $\mathrm{X}^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 61 | 65.5 | 3721 | 4290.25 | 3995.5 |
| 2 | 67 | 75 | 4489 | 5625 | 5025 |
| 3 | 70 | 74 | 4900 | 5476 | 5180 |
| 4 | 70 | 83.5 | 4900 | 6972.25 | 5845 |
| 5 | 73 | 71 | 5329 | 5041 | 5183 |
| 6 | 73 | 74 | 5329 | 5476 | 5402 |
| 7 | 88 | 68 | 7744 | 4624 | 5984 |
| 8 | 70 | 81 | 4900 | 6561 | 5670 |
| 9 | 94 | 86 | 8836 | 7396 | 8084 |
| 10 | 70 | 68.5 | 4900 | 4692.25 | 4795 |
| 11 | 55 | 66.5 | 3025 | 4422.25 | 3657.5 |
| 12 | 64 | 72.5 | 4096 | 5256.25 | 4640 |
| 13 | 70 | 75.5 | 4900 | 5700.25 | 5285 |
| 14 | 82 | 83.5 | 6724 | 6972.25 | 6847 |
| 15 | 61 | 59.5 | 3721 | 3540.25 | 3629.5 |
| 16 | 58 | 69 | 3364 | 4761 | 4002 |
| 17 | 73 | 73.5 | 5329 | 5402.25 | 5365.5 |
| 18 | 70 | 69 | 4900 | 4761 | 4830 |
| 19 | 70 | 76 | 4900 | 5776 | 5320 |
| 20 | 91 | 81 | 8281 | 6561 | 7371 |
| 21 | 79 | 73 | 6241 | 5329 | 5767 |
| 22 | 82 | 72.5 | 6724 | 5256.25 | 5945 |
| 23 | 73 | 75.5 | 5329 | 5700.25 | 5511.5 |
| 24 | 82 | 71 | 6724 | 5041 | 5822 |
| 25 | 82 | 77 | 6724 | 5929 | 6314 |
| 26 | 79 | 75.5 | 6241 | 5700.25 | 5964.5 |
| 27 | 61 | 70.5 | 3721 | 4970.25 | 4300.5 |
| 28 | 76 | 79 | 5776 | 6241 | 6004 |
| 29 | 76 | 78.5 | 5776 | 6162.25 | 5966 |
| 30 | 76 | 62 | 5776 | 3844 | 4712 |
| 31 | 82 | 86 | 6724 | 7396 | 7052 |
| 32 | 73 | 74 | 5329 | 5476 | 5402 |


| 33 | 73 | 75 | 5329 | 5625 | 5475 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 34 | 85 | 82 | 7225 | 6724 | 6970 |
| 35 | 64 | 75.5 | 4096 | 5700.25 | 4832 |
| 36 | 79 | 83.5 | 6241 | 6972.25 | 6596.5 |
| 37 | 76 | 80.5 | 5776 | 6480.25 | 6118 |
| 38 | 73 | 60.5 | 5329 | 3660.25 | 4416.5 |
| 39 | 58 | 67 | 3364 | 4489 | 3886 |
| 40 | 61 | 64.5 | 3721 | 4160.25 | 3934.5 |
| 41 | 67 | 64.5 | 4489 | 4160.25 | 4321.5 |
| 42 | 70 | 65 | 4900 | 4225 | 4550 |
| 43 | 67 | 69 | 4489 | 4761 | 4623 |
| 44 | 70 | 70 | 4900 | 4900 | 4900 |
| 45 | 73 | 76.5 | 5329 | 5852.25 | 5584.5 |
| 46 | 67 | 74 | 4489 | 5476 | 4958 |
| 47 | 85 | 83.5 | 7225 | 6972.25 | 7097.5 |
| 48 | 76 | 77 | 5776 | 5929 | 5852 |
| 49 | 70 | 73 | 4900 | 5329 | 5110 |
| 50 | 67 | 66 | 4489 | 4356 | 4422 |
| 51 | 64 | 72 | 4096 | 5184 | 4608 |
| 52 | 85 | 78 | 7225 | 6084 | 6630 |
| 53 | 70 | 78 | 4900 | 6084 | 5460 |
| 54 | 85 | 81.5 | 7225 | 6642.25 | 6927.5 |
| 55 | 70 | 62 | 4900 | 3844 | 4340 |
| 56 | 64 | 78.5 | 4096 | 6162.25 | 5024 |
| TOTAL | 4070 | 4124 | 299882 | 306124 | 301508 |
|  | $\begin{aligned} & (\Sigma x)^{2} \\ & =16564900 \end{aligned}$ | $\begin{aligned} & (\Sigma y)^{2} \\ & =17007376 \end{aligned}$ |  |  |  |

$$
r=\frac{n \cdot \Sigma x y-\Sigma x . \Sigma y}{\sqrt{\left(n\left(\Sigma x^{2}\right)-(\Sigma x)^{2}\right)\left(n\left(\Sigma y^{2}\right)-(\Sigma y)^{2}\right)}}
$$

$$
r=\frac{(56.301508)-(4070.4124)}{\sqrt{((56.299882)-16564900)((56.306124)-17007376)}}
$$

99768
$r=\frac{}{\sqrt{(228492)(135568)}}$
$r=\frac{99768}{176000.6}$
$r=0.56$

## The Computation Table of Pearson R

(Second Test)
The Computation Table of Pearson $R$ between Reading Comprehension and Writing Achievement

| No. | X | Y | $\mathrm{X}^{2}$ | $\mathrm{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 70 | 70.5 | 4900 | 4970.25 | 4935 |
| 2 | 58 | 60.5 | 3364 | 3660.25 | 3509 |
| 3 | 70 | 71 | 4900 | 5041 | 4970 |
| 4 | 76 | 68.5 | 5776 | 4692.25 | 5206 |
| 5 | 73 | 74.5 | 5329 | 5550.25 | 5438.5 |
| 6 | 67 | 68.5 | 4489 | 4692.25 | 4589.5 |
| 7 | 79 | 72.5 | 6241 | 5256.25 | 5727.5 |
| 8 | 76 | 72 | 5776 | 5184 | 5472 |
| 9 | 79 | 72.5 | 6241 | 5256.25 | 5727.5 |
| 10 | 67 | 70 | 4489 | 4900 | 4690 |
| 11 | 61 | 67.5 | 3721 | 4556.25 | 4117.5 |
| 12 | 70 | 72.5 | 4900 | 5256.25 | 5075 |
| 13 | 64 | 65 | 4096 | 4225 | 4160 |
| 14 | 76 | 75 | 5776 | 5625 | 5700 |
| 15 | 61 | 66.5 | 3721 | 4422.25 | 4056.5 |
| 16 | 67 | 70 | 4489 | 4900 | 4690 |
| 17 | 73 | 66.5 | 5329 | 4422.25 | 4854.5 |
| 18 | 76 | 67.5 | 5776 | 4556.25 | 5130 |
| 19 | 79 | 71.5 | 6241 | 5112.25 | 5648.5 |
| 20 | 85 | 77 | 7225 | 5929 | 6545 |
| 21 | 70 | 66.5 | 4900 | 4422.25 | 4655 |
| 22 | 70 | 67.5 | 4900 | 4556.25 | 4725 |
| 23 | 79 | 70 | 6241 | 4900 | 5530 |
| 24 | 76 | 72.5 | 5776 | 5256.25 | 5510 |
| 25 | 67 | 71.5 | 4489 | 5112.25 | 4790.5 |
| 26 | 73 | 71 | 5329 | 5041 | 5183 |
| 27 | 58 | 66 | 3364 | 4356 | 3828 |
| 28 | 73 | 68.5 | 5329 | 4692.25 | 5000.5 |
| 29 | 70 | 75 | 4900 | 5625 | 5250 |
| 30 | 73 | 75 | 5329 | 5625 | 5475 |
| 31 | 70 | 74.5 | 4900 | 5550.25 | 5215 |
| 32 | 76 | 77.5 | 5776 | 6006.25 | 5890 |
| 33 | 79 | 73.5 | 6241 | 5402.25 | 5806.5 |


| 34 | 76 | 74 | 5776 | 5476 | 5624 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 35 | 70 | 71.5 | 4900 | 5112.25 | 5005 |
| 36 | 82 | 76.5 | 6724 | 5852.25 | 6273 |
| 37 | 67 | 64 | 4489 | 4096 | 4288 |
| 38 | 79 | 75.5 | 6241 | 5700.25 | 5964.5 |
| 39 | 70 | 76 | 4900 | 5776 | 5320 |
| 40 | 76 | 76 | 5776 | 5776 | 5776 |
| 41 | 73 | 76.5 | 5329 | 5852.25 | 5584.5 |
| 42 | 67 | 72 | 4489 | 5184 | 4824 |
| 43 | 73 | 75 | 5329 | 5625 | 5475 |
| 44 | 70 | 73 | 4900 | 5329 | 5110 |
| 45 | 85 | 81.5 | 7225 | 6642.25 | 6927.5 |
| 46 | 73 | 77.5 | 5329 | 6006.25 | 5657.5 |
| 47 | 64 | 75 | 4096 | 5625 | 4800 |
| 48 | 76 | 71.5 | 5776 | 5112.25 | 5434 |
| 49 | 79 | 74.5 | 6241 | 5550.25 | 5885.5 |
| 50 | 73 | 80 | 5329 | 6400 | 5840 |
| 51 | 67 | 69.5 | 4489 | 4830.25 | 4656.5 |
| 52 | 76 | 72 | 5776 | 5184 | 5472 |
| 53 | 64 | 69.5 | 4096 | 4830.25 | 4448 |
| 54 | 67 | 70.5 | 4489 | 4970.25 | 4723.5 |
| 55 | 73 | 69 | 5329 | 4761 | 5037 |
| 56 | 76 | 73 | 5776 | 5329 | 5548 |
| TOTAL | 4037 | 4022 | $\mathbf{2 9 3 0 5 7}$ | $\mathbf{2 8 9 7 7 2}$ | $\mathbf{2 9 0 7 7 4}$ |

$$
\begin{aligned}
& r=\frac{n \cdot \Sigma x y-\Sigma x \cdot \Sigma y}{\sqrt{\left(n\left(\Sigma x^{2}\right)-(\Sigma x)^{2}\right)\left(n\left(\Sigma y^{2}\right)-(\Sigma y)^{2}\right)}} \\
& r=\frac{(56.290774)-(4037.4022)}{\sqrt{((56.293057)-16297369)((56.289772)-16176484)}}
\end{aligned}
$$

$$
r=\frac{46530}{\sqrt{(113823)(50748)}}
$$

$$
r=\frac{46530}{76001.9}
$$

$$
r=0.60
$$

## APPENDIX 8

$r$ Table (Pearson Product Moment)
Level of Significance 0.05

| N | $r$ | N | $r$ |
| :---: | :---: | :---: | :---: |
| 3 | 0.997 | 41 | 0.308 |
| 4 | 0.95 | 42 | 0.304 |
| 5 | 0.878 | 43 | 0.301 |
| 6 | 0.811 | 44 | 0.297 |
| 7 | 0.755 | 45 | 0.294 |
| 8 | 0.707 | 46 | 0.291 |
| 9 | 0.666 | 47 | 0.288 |
| 10 | 0.632 | 48 | 0.285 |
| 11 | 0.602 | 49 | 0.282 |
| 12 | 0.576 | 50 | 0.279 |
| 13 | 0.553 | 51 | 0.276 |
| 14 | 0.532 | 52 | 0.273 |
| 15 | 0.514 | 53 | 0.271 |
| 16 | 0.497 | 54 | 0.268 |
| 17 | 0.482 | 55 | 0.266 |
| 18 | 0.468 | 56 | 0.263 |
| 19 | 0.456 | 57 | 0.261 |
| 20 | 0.444 | 58 | 0.259 |
| 21 | 0.433 | 59 | 0.256 |
| 22 | 0.423 | 60 | 0.254 |
| 23 | 0.413 | 61 | 0.252 |
| 24 | 0.404 | 62 | 0.25 |
| 25 | 0.396 | 63 | 0.248 |
| 26 | 0.388 | 64 | 0.246 |
| 27 | 0.381 | 65 | 0.244 |
| 28 | 0.374 | 66 | 0.242 |
| 29 | 0.367 | 67 | 0.24 |
| 30 | 0.361 | 68 | 0.239 |
| 31 | 0.355 | 69 | 0.237 |
| 32 | 0.349 | 70 | 0.235 |
| 33 | 0.344 | 71 | 0.234 |
| 34 | 0.339 | 72 | 0.232 |
| 35 | 0.334 | 73 | 0.23 |
| 36 | 0.329 | 74 | 0.229 |
| 37 | 0.325 | 75 | 0.227 |
| 38 | 0.32 | 76 | 0.226 |
| 39 | 0.316 | 77 | 0.224 |
| 40 | 0.312 | 78 | 0.223 |
| 41 | 0.308 | 79 | 0.221 |
| 42 | 0.304 | 80 | 0.22 |

## APPENDIX 9

## ESL Composition Profile

| Category | Score | Criteria |
| :---: | :---: | :---: |
| CONTENT | 30-27 | EXCELLENT TO VERY GOOD: knowledgeable • substantive <br> $\bullet$ thorough development of thesis • relevant to assigned topic |
|  | 26-22 | GOOD TO AVERAGE: some knowledge of subject • adequate range - limited development of thesis - mostly relevant to topic, but lacks detail |
|  | 21-17 | FAIR TO POOR: limited knowledge of subject • little substance -inadequate development of topic |
|  | 16-13 | VERY POOR: does not show knowledge of subject - nonsubstantive • non pertinent • OR not enough to evaluate |
| ORGANIZATION | 20-18 | EXCELLENT TO VERY GOOD: fluent expression • ideas clearly stated/ supported • succinct • well-organized • logical sequencing • cohesive |
|  | 17-14 | GOOD TO AVERAGE: somewhat choppy • loosely organized but main ideas stand out • limited support • logical but incomplete sequencing |
|  | 13-10 | FAIR TO POOR: non-fluent • ideas confused or disconnected • lacks logical sequencing and development |
|  | 9-7 | VERY POOR: does not communicate • no organization • OR not enough to evaluate |
| VOCABULARY | 20-18 | EXCELLENT TO VERY GOOD: sophisticated range •effective word/idiom choice and usage • word for mastery • appropriate register |
|  | 17-14 | GOOD TO AVERAGE: adequate range - occasional errors of effective word/idiom form, choice, usage but meaning not obscured |
|  | 13-10 | FAIR TO POOR: limited range - frequent errors of effective word/idiom form, choice, usage - meaning confused or obscured |
|  | 9-7 | VERY POOR: essentially translation • little knowledge of English vocabulary, idioms, word form - OR not enough to evaluate |


| LANGUAGE USE | 20-18 | EXCELLENT TO VERY GOOD: effective complex constructions • few errors of agreement, tense, number, word order/function, article, pronouns, prepositions |
| :---: | :---: | :---: |
|  | 17-14 | GOOD TO AVERAGE: effective but simple constructions • minor problems in complex constructions - several errors of agreement, tense, number, word order/function, article, pronouns, prepositions but meaning seldom obscured |
|  | 13-10 | FAIR TO POOR: major problems in simple/ complex constructions - frequent errors of negation, tense, number, word order/function, article, pronouns, prepositions and/ or fragments, run-ons, deletions • meaning confused or obscured |
|  | 9-7 | VERY POOR: virtually no mastery of sentence construction rules - dominated by errors - does not communicate - OR not enough to evaluate |
| MECHANICS | 5 | EXCELLENT TO VERY GOOD: demonstrates mastery of conventions - few errors of spelling, punctuation, capitalization, paragraphing |
|  | 4 | GOOD TO AVERAGE: occasional errors of spelling, punctuation, capitalization, paragraphing but meaning not obscured |
|  | 3 | FAIR TO POOR: frequent errors of spelling, punctuation, capitalization, paragraphing • poor handwriting • meaning confused or obscured |
|  | 2 | VERY POOR: no mastery of conventions • dominated by errors of spelling, punctuation, capitalization, paragraphing • handwriting illegible •OR not enough to evaluate |

## APPENDIX 10

## The Scores of Writing Components

(First Test)

| Students' <br> Number | Components of Writing |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Content | Organization | Vocabulary | Language | Mechanics |
| 1 | 20.5 | 13 | 14 | 14.5 | 3.5 |
| 2 | 24 | 16.5 | 16.5 | 14 | 4 |
| 3 | 21.5 | 15.5 | 14.5 | 13 | 3.5 |
| 4 | 27 | 18 | 17.5 | 17 | 4 |
| 5 | 24 | 15.5 | 15 | 13 | 3.5 |
| 6 | 24 | 17 | 16 | 13.5 | 3.5 |
| 7 | 22 | 15 | 14 | 13.5 | 3.5 |
| 8 | 25.5 | 18 | 17 | 16.5 | 4 |
| 9 | 28 | 18.5 | 17.5 | 17.5 | 4.5 |
| 10 | 23.5 | 16 | 16 | 15.5 | 3.5 |
| 11 | 21 | 14.5 | 13 | 15 | 3 |
| 12 | 22 | 15 | 13.5 | 13.5 | 4 |
| 13 | 24.5 | 17 | 16 | 14 | 4 |
| 14 | 27.5 | 18 | 17 | 17 | 4 |
| 15 | 16.5 | 13.5 | 13.5 | 13 | 3 |
| 16 | 22 | 16.5 | 14.5 | 13 | 3 |
| 17 | 23.5 | 17.5 | 15.5 | 13.5 | 3.5 |
| 18 | 21.5 | 14 | 14.5 | 15 | 4 |
| 19 | 23.5 | 16.5 | 15.5 | 16.5 | 4 |
| 20 | 26.5 | 17.5 | 16.5 | 16.5 | 4 |
| 21 | 22.5 | 16 | 16 | 15 | 3.5 |
| 22 | 22.5 | 16 | 16.5 | 13.5 | 4 |
| 23 | 24 | 15.5 | 17.5 | 14.5 | 4 |
| 24 | 22.5 | 16.5 | 14 | 14 | 4 |
| 25 | 24 | 16.5 | 14.5 | 13.5 | 3.5 |
| 26 | 24 | 19 | 15 | 13.5 | 4 |
| 27 | 23.5 | 15.5 | 15 | 13.5 | 3 |
| 28 | 25.5 | 18 | 15.5 | 16 | 4 |
| 29 | 25.5 | 17 | 16 | 16.5 | 3.5 |
| 30 | 18 | 13 | 13 | 15 | 3 |
| 31 | 28.5 | 18.5 | 17.5 | 17.5 | 4 |
| 32 | 23.5 | 16 | 17 | 14 | 3.5 |
| 33 | 26 | 17 | 15.5 | 13 | 3 |


| 34 | 27 | 17.5 | 16.5 | 17 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 35 | 24 | 17.5 | 15.5 | 14.5 | 4 |
| 36 | 27.5 | 18.5 | 16.5 | 17 | 4 |
| 37 | 27 | 17.5 | 16 | 16.5 | 3.5 |
| 38 | 17.5 | 13 | 12.5 | 14.5 | 3 |
| 39 | 19.5 | 15.5 | 15 | 13 | 4 |
| 40 | 20 | 13.5 | 13.5 | 14.5 | 3 |
| 41 | 18.5 | 15.5 | 13 | 14.5 | 3 |
| 42 | 19.5 | 15.5 | 14 | 12.5 | 3.5 |
| 43 | 19.5 | 15.5 | 15 | 15.5 | 3.5 |
| 44 | 21 | 15 | 16 | 14.5 | 3 |
| 45 | 24.5 | 17 | 16 | 15.5 | 3 |
| 46 | 26.5 | 17.5 | 14 | 17 | 3.5 |
| 47 | 27.5 | 18.5 | 17 | 16.5 | 4 |
| 48 | 24.5 | 16.5 | 16 | 16 | 4 |
| 49 | 24.5 | 17.5 | 14 | 13.5 | 3.5 |
| 50 | 22 | 14.5 | 14 | 12.5 | 3 |
| 51 | 20 | 15.5 | 17 | 15.5 | 4 |
| 52 | 25 | 17 | 15.5 | 16.5 | 4 |
| 53 | 26.5 | 17 | 15.5 | 15 | 4 |
| 54 | 26 | 17.5 | 17 | 17 | 4 |
| 55 | 18 | 13 | 15.5 | 13 | 3 |
| 56 | 25.5 | 17 | 16 | 16 | 4 |

The Score of Writing Components (Second Test)

| Students' <br> Number | Components of Writing |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Content | Organization | Vocabulary | Language | Mechanics |
| 1 | 23.5 | 13.5 | 14.5 | 15 | 4 |
| 2 | 16.5 | 13 | 13.5 | 14.5 | 3 |
| 3 | 23.5 | 14.5 | 14.5 | 14.5 | 4 |
| 4 | 21.5 | 15.5 | 14 | 13.5 | 4 |
| 5 | 23 | 16.5 | 16.5 | 14.5 | 4 |
| 6 | 22 | 15.5 | 14 | 13 | 4 |
| 7 | 24 | 15.5 | 14.5 | 15 | 4 |
| 8 | 23 | 15 | 15 | 14 | 4 |
| 9 | 21 | 16 | 16 | 15.5 | 4 |
| 10 | 23 | 15.5 | 14.5 | 13 | 4 |
| 11 | 21.5 | 14.5 | 15 | 13 | 4 |
| 12 | 23 | 16 | 15 | 14.5 | 4 |
| 13 | 20 | 14.5 | 14 | 13.5 | 3 |
| 14 | 25.5 | 15.5 | 16 | 15 | 4 |
| 15 | 21 | 15 | 13.5 | 13 | 4 |
| 16 | 22.5 | 15 | 14.5 | 14 | 4 |
| 17 | 21 | 14.5 | 13.5 | 13.5 | 4 |
| 18 | 23.5 | 12.5 | 14.5 | 14 | 3 |
| 19 | 23.5 | 14.5 | 14.5 | 15 | 4 |
| 20 | 24.5 | 16.5 | 16.5 | 15.5 | 4 |
| 21 | 20.5 | 14 | 15 | 13.5 | 3.5 |
| 22 | 21 | 14.5 | 15 | 13.5 | 3.5 |
| 23 | 20 | 17.5 | 14.5 | 14 | 4 |
| 24 | 23.5 | 15.5 | 15 | 15 | 3.5 |
| 25 | 24 | 15.5 | 14.5 | 14 | 4 |
| 26 | 22.5 | 14 | 15.5 | 15 | 4 |
| 27 | 21 | 15.5 | 13.5 | 13 | 3 |
| 28 | 23.5 | 14.5 | 13.5 | 13 | 4 |
| 29 | 24 | 17 | 15 | 15 | 4 |
| 30 | 23 | 18 | 15 | 15 | 4 |
| 31 | 24 | 16 | 16 | 15 | 3.5 |
| 32 | 25 | 17.5 | 15 | 15 | 4 |
| 33 | 22 | 16.5 | 15.5 | 15.5 | 4 |
| 34 | 24 | 17 | 18 | 14 | 4 |


| 35 | 22.5 | 15.5 | 15.5 | 15 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 36 | 25 | 17.5 | 16.5 | 14.5 | 4 |
| 37 | 19.5 | 14 | 14 | 13.5 | 3.5 |
| 38 | 24 | 17 | 15 | 15.5 | 4 |
| 39 | 23 | 15 | 15.5 | 14.5 | 3.5 |
| 40 | 24 | 17 | 16.5 | 15 | 3.5 |
| 41 | 23.5 | 17 | 16 | 16.5 | 3.5 |
| 42 | 23.5 | 15 | 15.5 | 14 | 4 |
| 43 | 24.5 | 17 | 15 | 15.5 | 3.5 |
| 44 | 24 | 15.5 | 15 | 14.5 | 4 |
| 45 | 27.5 | 17.5 | 16.5 | 16 | 4 |
| 46 | 25 | 17.5 | 15 | 16 | 4 |
| 47 | 23 | 16.5 | 16 | 15.5 | 4 |
| 48 | 23.5 | 15 | 14.5 | 15 | 3.5 |
| 49 | 24.5 | 15.5 | 16 | 14.5 | 4 |
| 50 | 25.5 | 18 | 17.5 | 15 | 4 |
| 51 | 22.5 | 14.5 | 14 | 15 | 3.5 |
| 52 | 23.5 | 15.5 | 15 | 14 | 4 |
| 53 | 23 | 14.5 | 15.5 | 14 | 3.5 |
| 54 | 22.5 | 15 | 15 | 14 | 4 |
| 55 | 22 | 14 | 14.5 | 14.5 | 4 |
| 56 | 24 | 15 | 15.5 | 14.5 | 4 |

## APPENDIX 11

## The Computation Table of Pearson R

(First Test)
The Computation Table of Pearson R between Reading and Writing Components:
Content

| No. | X | Y | $\mathrm{X}^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 61 | 20.5 | 3721 | 420.25 | 1250.5 |
| 2 | 67 | 24 | 4489 | 576 | 1608 |
| 3 | 70 | 21.5 | 4900 | 462.25 | 1505 |
| 4 | 70 | 27 | 4900 | 729 | 1890 |
| 5 | 73 | 24 | 5329 | 576 | 1752 |
| 6 | 73 | 24 | 5329 | 576 | 1752 |
| 7 | 88 | 22 | 7744 | 484 | 1936 |
| 8 | 70 | 25.5 | 4900 | 650.25 | 1785 |
| 9 | 94 | 28 | 8836 | 784 | 2632 |
| 10 | 70 | 23.5 | 4900 | 552.25 | 1645 |
| 11 | 55 | 21 | 3025 | 441 | 1155 |
| 12 | 64 | 22 | 4096 | 484 | 1408 |
| 13 | 70 | 24.5 | 4900 | 600.25 | 1715 |
| 14 | 82 | 27.5 | 6724 | 756.25 | 2255 |
| 15 | 61 | 16.5 | 3721 | 272.25 | 1006.5 |
| 16 | 58 | 22 | 3364 | 484 | 1276 |
| 17 | 73 | 23.5 | 5329 | 552.25 | 1715.5 |
| 18 | 70 | 21.5 | 4900 | 462.25 | 1505 |
| 19 | 70 | 23.5 | 4900 | 552.25 | 1645 |
| 20 | 91 | 26.5 | 8281 | 702.25 | 2411.5 |
| 21 | 79 | 22.5 | 6241 | 506.25 | 1777.5 |
| 22 | 82 | 22.5 | 6724 | 506.25 | 1845 |
| 23 | 73 | 24 | 5329 | 576 | 1752 |
| 24 | 82 | 22.5 | 6724 | 506.25 | 1845 |
| 25 | 82 | 24 | 6724 | 576 | 1968 |
| 26 | 79 | 24 | 6241 | 576 | 1896 |
| 27 | 61 | 23.5 | 3721 | 552.25 | 1433.5 |
| 28 | 76 | 25.5 | 5776 | 650.25 | 1938 |
| 29 | 76 | 25.5 | 5776 | 650.25 | 1938 |
| 30 | 76 | 18 | 5776 | 324 | 1368 |
| 31 | 82 | 28.5 | 6724 | 812.25 | 2337 |
| 32 | 73 | 23.5 | 5329 | 552.25 | 1715.5 |


| 33 | 73 | 26 | 5329 | 676 | 1898 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 34 | 85 | 27 | 7225 | 729 | 2295 |
| 35 | 64 | 24 | 4096 | 576 | 1536 |
| 36 | 79 | 27.5 | 6241 | 756.25 | 2172.5 |
| 37 | 76 | 27 | 5776 | 729 | 2052 |
| 38 | 73 | 17.5 | 5329 | 306.25 | 1277.5 |
| 39 | 58 | 19.5 | 3364 | 380.25 | 1131 |
| 40 | 61 | 20 | 3721 | 400 | 1220 |
| 41 | 67 | 18.5 | 4489 | 342.25 | 1239.5 |
| 42 | 70 | 19.5 | 4900 | 380.25 | 1365 |
| 43 | 67 | 19.5 | 4489 | 380.25 | 1306.5 |
| 44 | 70 | 21 | 4900 | 441 | 1470 |
| 45 | 73 | 24.5 | 5329 | 600.25 | 1788.5 |
| 46 | 67 | 26.5 | 4489 | 702.25 | 1775.5 |
| 47 | 85 | 27.5 | 7225 | 756.25 | 2337.5 |
| 48 | 76 | 24.5 | 5776 | 600.25 | 1862 |
| 49 | 70 | 24.5 | 4900 | 600.25 | 1715 |
| 50 | 67 | 22 | 4489 | 484 | 1474 |
| 51 | 64 | 20 | 4096 | 400 | 1280 |
| 52 | 85 | 25 | 7225 | 625 | 2125 |
| 53 | 70 | 26.5 | 4900 | 702.25 | 1855 |
| 54 | 85 | 26 | 7225 | 676 | 2210 |
| 55 | 70 | 18 | 4900 | 324 | 1260 |
| 56 | 64 | 25.5 | 4096 | 650.25 | 1632 |
| TOTAL | 4070 | 1310 | 299882 | 31122 | 95939 |
|  | $(\Sigma x)^{2}=16564900$ | $(\Sigma y)^{2}=1716100$ |  |  |  |

$$
\begin{aligned}
& r=\frac{n . \Sigma x y-\Sigma x . \Sigma y}{\sqrt{\left(n\left(\Sigma x^{2}\right)-(\Sigma x)^{2}\right)\left(n\left(\Sigma y^{2}\right)-(\Sigma y)^{2}\right)}} \\
& r=\frac{(56.95939)-(4070.1310)}{\sqrt{((56.299882)-16564900)((56.31122)-1716100)}} \\
& r=\frac{40884}{\sqrt{(228492)(26732)}} \\
& r=\frac{40884}{78154} \\
& r=0.523
\end{aligned}
$$

The Computation Table of Pearson R between Reading and Writing Components: Organization

| No. | X | Y | X ${ }^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 61 | 13 | 3721 | 169 | 793 |
| 2 | 67 | 16.5 | 4489 | 272.25 | 1105.5 |
| 3 | 70 | 15.5 | 4900 | 240.25 | 1085 |
| 4 | 70 | 18 | 4900 | 324 | 1260 |
| 5 | 73 | 15.5 | 5329 | 240.25 | 1131.5 |
| 6 | 73 | 17 | 5329 | 289 | 1241 |
| 7 | 88 | 15 | 7744 | 225 | 1320 |
| 8 | 70 | 18 | 4900 | 324 | 1260 |
| 9 | 94 | 18.5 | 8836 | 342.25 | 1739 |
| 10 | 70 | 16 | 4900 | 256 | 1120 |
| 11 | 55 | 14.5 | 3025 | 210.25 | 797.5 |
| 12 | 64 | 15 | 4096 | 225 | 960 |
| 13 | 70 | 17 | 4900 | 289 | 1190 |
| 14 | 82 | 18 | 6724 | 324 | 1476 |
| 15 | 61 | 13.5 | 3721 | 182.25 | 823.5 |
| 16 | 58 | 16.5 | 3364 | 272.25 | 957 |
| 17 | 73 | 17.5 | 5329 | 306.25 | 1277.5 |
| 18 | 70 | 14 | 4900 | 196 | 980 |
| 19 | 70 | 16.5 | 4900 | 272.25 | 1155 |
| 20 | 91 | 17.5 | 8281 | 306.25 | 1592.5 |
| 21 | 79 | 16 | 6241 | 256 | 1264 |
| 22 | 82 | 16 | 6724 | 256 | 1312 |
| 23 | 73 | 15.5 | 5329 | 240.25 | 1131.5 |
| 24 | 82 | 16.5 | 6724 | 272.25 | 1353 |
| 25 | 82 | 16.5 | 6724 | 272.25 | 1353 |
| 26 | 79 | 19 | 6241 | 361 | 1501 |
| 27 | 61 | 15.5 | 3721 | 240.25 | 945.5 |
| 28 | 76 | 18 | 5776 | 324 | 1368 |
| 29 | 76 | 17 | 5776 | 289 | 1292 |
| 30 | 76 | 13 | 5776 | 169 | 988 |
| 31 | 82 | 18.5 | 6724 | 342.25 | 1517 |
| 32 | 73 | 16 | 5329 | 256 | 1168 |
| 33 | 73 | 17 | 5329 | 289 | 1241 |
| 34 | 85 | 17.5 | 7225 | 306.25 | 1487.5 |
| 35 | 64 | 17.5 | 4096 | 306.25 | 1120 |
| 36 | 79 | 18.5 | 6241 | 342.25 | 1461.5 |


| 37 | 76 | 17.5 | 5776 | 306.25 | 1330 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 38 | 73 | 13 | 5329 | 169 | 949 |  |
| 39 | 58 | 15.5 | 3364 | 240.25 | 899 |  |
| 40 | 61 | 13.5 | 3721 | 182.25 | 823.5 |  |
| 41 | 67 | 15.5 | 4489 | 240.25 | 1038.5 |  |
| 42 | 70 | 15.5 | 4900 | 240.25 | 1085 |  |
| 43 | 67 | 15.5 | 4489 | 240.25 | 1038.5 |  |
| 44 | 70 | 15 | 4900 | 225 | 1050 |  |
| 45 | 73 | 17 | 5329 | 289 | 1241 |  |
| 46 | 67 | 17.5 | 4489 | 306.25 | 1172.5 |  |
| 47 | 85 | 18.5 | 7225 | 342.25 | 1572.5 |  |
| 48 | 76 | 16.5 | 5776 | 272.25 | 1254 |  |
| 49 | 70 | 17.5 | 4900 | 306.25 | 1225 |  |
| 50 | 67 | 14.5 | 4489 | 210.25 | 971.5 |  |
| 51 | 64 | 15.5 | 4096 | 240.25 | 992 |  |
| 52 | 85 | 17 | 7225 | 289 | 1445 |  |
| 53 | 70 | 17 | 4900 | 289 | 1190 |  |
| 54 | 85 | 17.5 | 7225 | 306.25 | 1487.5 |  |
| 55 | 70 | 13 | 4900 | 169 | 910 |  |
| 56 | 64 | 17 | 4096 | 289 | 1088 |  |
| TOTAL | 4070 | $\mathbf{9 1 0 . 5}$ | $\mathbf{2 9 9 8 8 2}$ | $\mathbf{1 4 9 3 9 . 7 5}$ | $\mathbf{6 6 5 2 9 . 5}$ |  |
|  | $(\Sigma x)^{2}=16564900$ | $(\Sigma y)^{2}=829010.25$ |  |  |  |  |
|  |  |  |  |  |  |  |

$r=\frac{n \cdot \Sigma x y-\Sigma x . \Sigma y}{\sqrt{\left(n\left(\Sigma x^{2}\right)-(\Sigma x)^{2}\right)\left(n\left(\Sigma y^{2}\right)-(\Sigma y)^{2}\right)}}$
$r=\frac{(56.66529 .5)-(4070.910 .5)}{\sqrt{((56.29982)-16564900)((56.14939 .75)-829010.25)}}$
$r=\frac{19917}{\sqrt{(228492)(7615.75)}}$
$r=\frac{19917}{41714.96}$
$r=0.477$

The Computation Table of Pearson R between Reading and Writing Components: Vocabulary

| No. | X | Y | X ${ }^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 61 | 14 | 3721 | 196 | 854 |
| 2 | 67 | 16.5 | 4489 | 272.25 | 1105.5 |
| 3 | 70 | 14.5 | 4900 | 210.25 | 1015 |
| 4 | 70 | 17.5 | 4900 | 306.25 | 1225 |
| 5 | 73 | 15 | 5329 | 225 | 1095 |
| 6 | 73 | 16 | 5329 | 256 | 1168 |
| 7 | 88 | 14 | 7744 | 196 | 1232 |
| 8 | 70 | 17 | 4900 | 289 | 1190 |
| 9 | 94 | 17.5 | 8836 | 306.25 | 1645 |
| 10 | 70 | 16 | 4900 | 256 | 1120 |
| 11 | 55 | 13 | 3025 | 169 | 715 |
| 12 | 64 | 13.5 | 4096 | 182.25 | 864 |
| 13 | 70 | 16 | 4900 | 256 | 1120 |
| 14 | 82 | 17 | 6724 | 289 | 1394 |
| 15 | 61 | 13.5 | 3721 | 182.25 | 823.5 |
| 16 | 58 | 14.5 | 3364 | 210.25 | 841 |
| 17 | 73 | 15.5 | 5329 | 240.25 | 1131.5 |
| 18 | 70 | 14.5 | 4900 | 210.25 | 1015 |
| 19 | 70 | 15.5 | 4900 | 240.25 | 1085 |
| 20 | 91 | 16.5 | 8281 | 272.25 | 1501.5 |
| 21 | 79 | 16 | 6241 | 256 | 1264 |
| 22 | 82 | 16.5 | 6724 | 272.25 | 1353 |
| 23 | 73 | 17.5 | 5329 | 306.25 | 1277.5 |
| 24 | 82 | 14 | 6724 | 196 | 1148 |
| 25 | 82 | 14.5 | 6724 | 210.25 | 1189 |
| 26 | 79 | 15 | 6241 | 225 | 1185 |
| 27 | 61 | 15 | 3721 | 225 | 915 |
| 28 | 76 | 15.5 | 5776 | 240.25 | 1178 |
| 29 | 76 | 16 | 5776 | 256 | 1216 |
| 30 | 76 | 13 | 5776 | 169 | 988 |
| 31 | 82 | 17.5 | 6724 | 306.25 | 1435 |
| 32 | 73 | 17 | 5329 | 289 | 1241 |
| 33 | 73 | 15.5 | 5329 | 240.25 | 1131.5 |
| 34 | 85 | 16.5 | 7225 | 272.25 | 1402.5 |
| 35 | 64 | 15.5 | 4096 | 240.25 | 992 |
| 36 | 79 | 16.5 | 6241 | 272.25 | 1303.5 |


| 37 | 76 | 16 | 5776 | 256 | 1216 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 38 | 73 | 12.5 | 5329 | 156.25 | 912.5 |
| 39 | 58 | 15 | 3364 | 225 | 870 |
| 40 | 61 | 13.5 | 3721 | 182.25 | 823.5 |
| 41 | 67 | 13 | 4489 | 169 | 871 |
| 42 | 70 | 14 | 4900 | 196 | 980 |
| 43 | 67 | 15 | 4489 | 225 | 1005 |
| 44 | 70 | 16 | 4900 | 256 | 1120 |
| 45 | 73 | 16 | 5329 | 256 | 1168 |
| 46 | 67 | 14 | 4489 | 196 | 938 |
| 47 | 85 | 17 | 7225 | 289 | 1445 |
| 48 | 76 | 16 | 5776 | 256 | 1216 |
| 49 | 70 | 14 | 4900 | 196 | 980 |
| 50 | 67 | 14 | 4489 | 196 | 938 |
| 51 | 64 | 17 | 4096 | 289 | 1088 |
| 52 | 85 | 15.5 | 7225 | 240.25 | 1317.5 |
| 53 | 70 | 15.5 | 4900 | 240.25 | 1085 |
| 54 | 85 | 17 | 7225 | 289 | 1445 |
| 55 | 70 | 15.5 | 4900 | 240.25 | 1085 |
| 56 | 64 | 16 | 4096 | 256 | 1024 |
| TOTAL | 4070 | $\mathbf{8 6 1 . 5}$ | $\mathbf{2 9 9 8 8 2}$ | $\mathbf{1 3 3 5 0 . 2 5}$ | $\mathbf{6 2 8 8 6} .5$ |

$$
r=\frac{n \cdot \Sigma x y-\Sigma x \cdot \Sigma y}{\sqrt{\left(n\left(\Sigma x^{2}\right)-(\Sigma x)^{2}\right)\left(n\left(\Sigma y^{2}\right)-(\Sigma y)^{2}\right)}}
$$

$$
r=\frac{(56.62886 .5)-(4070.861 .5)}{\sqrt{((56.29982)-16564900)((56.13350 .25)-742182.3)}}
$$

$$
r=\frac{}{\sqrt{(228492)(5431.75)}}
$$

$$
r=\frac{15339}{35229.41}
$$

$$
r=0.435
$$

The Computation Table of Pearson R between Reading and Writing Components: Language Use

| No. | X | Y | $\mathrm{X}^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 61 | 14.5 | 3721 | 210.25 | 884.5 |
| 2 | 67 | 14 | 4489 | 196 | 938 |
| 3 | 70 | 13 | 4900 | 169 | 910 |
| 4 | 70 | 17 | 4900 | 289 | 1190 |
| 5 | 73 | 13 | 5329 | 169 | 949 |
| 6 | 73 | 13.5 | 5329 | 182.25 | 985.5 |
| 7 | 88 | 13.5 | 7744 | 182.25 | 1188 |
| 8 | 70 | 16.5 | 4900 | 272.25 | 1155 |
| 9 | 94 | 17.5 | 8836 | 306.25 | 1645 |
| 10 | 70 | 15.5 | 4900 | 240.25 | 1085 |
| 11 | 55 | 15 | 3025 | 225 | 825 |
| 12 | 64 | 13.5 | 4096 | 182.25 | 864 |
| 13 | 70 | 14 | 4900 | 196 | 980 |
| 14 | 82 | 17 | 6724 | 289 | 1394 |
| 15 | 61 | 13 | 3721 | 169 | 793 |
| 16 | 58 | 13 | 3364 | 169 | 754 |
| 17 | 73 | 13.5 | 5329 | 182.25 | 985.5 |
| 18 | 70 | 15 | 4900 | 225 | 1050 |
| 19 | 70 | 16.5 | 4900 | 272.25 | 1155 |
| 20 | 91 | 16.5 | 8281 | 272.25 | 1501.5 |
| 21 | 79 | 15 | 6241 | 225 | 1185 |
| 22 | 82 | 13.5 | 6724 | 182.25 | 1107 |
| 23 | 73 | 14.5 | 5329 | 210.25 | 1058.5 |
| 24 | 82 | 14 | 6724 | 196 | 1148 |
| 25 | 82 | 13.5 | 6724 | 182.25 | 1107 |
| 26 | 79 | 13.5 | 6241 | 182.25 | 1066.5 |
| 27 | 61 | 13.5 | 3721 | 182.25 | 823.5 |
| 28 | 76 | 16 | 5776 | 256 | 1216 |
| 29 | 76 | 16.5 | 5776 | 272.25 | 1254 |
| 30 | 76 | 15 | 5776 | 225 | 1140 |
| 31 | 82 | 17.5 | 6724 | 306.25 | 1435 |
| 32 | 73 | 14 | 5329 | 196 | 1022 |
| 33 | 73 | 13 | 5329 | 169 | 949 |
| 34 | 85 | 17 | 7225 | 289 | 1445 |
| 35 | 64 | 14.5 | 4096 | 210.25 | 928 |
| 36 | 79 | 17 | 6241 | 289 | 1343 |


| 37 | 76 | 16.5 | 5776 | 272.25 | 1254 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 38 | 73 | 14.5 | 5329 | 210.25 | 1058.5 |
| 39 | 58 | 13 | 3364 | 169 | 754 |
| 40 | 61 | 14.5 | 3721 | 210.25 | 884.5 |
| 41 | 67 | 14.5 | 4489 | 210.25 | 971.5 |
| 42 | 70 | 12.5 | 4900 | 156.25 | 875 |
| 43 | 67 | 15.5 | 4489 | 240.25 | 1038.5 |
| 44 | 70 | 14.5 | 4900 | 210.25 | 1015 |
| 45 | 73 | 15.5 | 5329 | 240.25 | 1131.5 |
| 46 | 67 | 17 | 4489 | 289 | 1139 |
| 47 | 85 | 16.5 | 7225 | 272.25 | 1402.5 |
| 48 | 76 | 16 | 5776 | 256 | 1216 |
| 49 | 70 | 13.5 | 4900 | 182.25 | 945 |
| 50 | 67 | 12.5 | 4489 | 156.25 | 837.5 |
| 51 | 64 | 15.5 | 4096 | 240.25 | 992 |
| 52 | 85 | 16.5 | 7225 | 272.25 | 1402.5 |
| 53 | 70 | 15 | 4900 | 225 | 1050 |
| 54 | 85 | 17 | 7225 | 289 | 1445 |
| 55 | 70 | 13 | 4900 | 169 | 910 |
| 56 | 64 | 16 | 4096 | 256 | 1024 |
| TOTAL | $\mathbf{4 0 7 0}$ | $\mathbf{8 3 2 . 5}$ | $\mathbf{2 9 9 8 8 2}$ | $\mathbf{1 2 4 9 7 . 7 5}$ | $\mathbf{6 0 8 0 5 . 5}$ |
|  | $(\Sigma x)^{2}=16564900$ | $(\Sigma y)^{2}=693056.3$ |  |  |  |

$$
\begin{aligned}
& r=\frac{n \cdot \Sigma x y-\Sigma x . \Sigma y}{\sqrt{\left(n\left(\Sigma x^{2}\right)-(\Sigma x)^{2}\right)\left(n\left(\Sigma y^{2}\right)-(\Sigma y)^{2}\right)}} \\
& r=\frac{(56.60805 .5)-(4070.832 .5)}{\sqrt{((56.29982)-16564900)((56.12497 .75)-693056.3)}} \\
& r=\frac{16833}{\sqrt{(228492)(6817.75)}} \\
& r=\frac{16833}{39468.99} \\
& r=0.426
\end{aligned}
$$

The Computation Table of Pearson R between Reading and Writing Components:
Mechanics

| No. | X | Y | $\mathrm{X}^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 61 | 3.5 | 3721 | 12.25 | 213.5 |
| 2 | 67 | 4 | 4489 | 16 | 268 |
| 3 | 70 | 3.5 | 4900 | 12.25 | 245 |
| 4 | 70 | 4 | 4900 | 16 | 280 |
| 5 | 73 | 3.5 | 5329 | 12.25 | 255.5 |
| 6 | 73 | 3.5 | 5329 | 12.25 | 255.5 |
| 7 | 88 | 3.5 | 7744 | 12.25 | 308 |
| 8 | 70 | 4 | 4900 | 16 | 280 |
| 9 | 94 | 4.5 | 8836 | 20.25 | 423 |
| 10 | 70 | 3.5 | 4900 | 12.25 | 245 |
| 11 | 55 | 3 | 3025 | 9 | 165 |
| 12 | 64 | 4 | 4096 | 16 | 256 |
| 13 | 70 | 4 | 4900 | 16 | 280 |
| 14 | 82 | 4 | 6724 | 16 | 328 |
| 15 | 61 | 3 | 3721 | 9 | 183 |
| 16 | 58 | 3 | 3364 | 9 | 174 |
| 17 | 73 | 3.5 | 5329 | 12.25 | 255.5 |
| 18 | 70 | 4 | 4900 | 16 | 280 |
| 19 | 70 | 4 | 4900 | 16 | 280 |
| 20 | 91 | 4 | 8281 | 16 | 364 |
| 21 | 79 | 3.5 | 6241 | 12.25 | 276.5 |
| 22 | 82 | 4 | 6724 | 16 | 328 |
| 23 | 73 | 4 | 5329 | 16 | 292 |
| 24 | 82 | 4 | 6724 | 16 | 328 |
| 25 | 82 | 3.5 | 6724 | 12.25 | 287 |
| 26 | 79 | 4 | 6241 | 16 | 316 |
| 27 | 61 | 3 | 3721 | 9 | 183 |
| 28 | 76 | 4 | 5776 | 16 | 304 |
| 29 | 76 | 3.5 | 5776 | 12.25 | 266 |
| 30 | 76 | 3 | 5776 | 9 | 228 |
| 31 | 82 | 4 | 6724 | 16 | 328 |
| 32 | 73 | 3.5 | 5329 | 12.25 | 255.5 |
| 33 | 73 | 3 | 5329 | 9 | 219 |
| 34 | 85 | 4 | 7225 | 16 | 340 |
| 35 | 64 | 4 | 4096 | 16 | 256 |


| 36 | 79 | 4 | 6241 | 16 | 316 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 76 | 3.5 | 5776 | 12.25 | 266 |
| 38 | 73 | 3 | 5329 | 9 | 219 |
| 39 | 58 | 4 | 3364 | 16 | 232 |
| 40 | 61 | 3 | 3721 | 9 | 183 |
| 41 | 67 | 3 | 4489 | 9 | 201 |
| 42 | 70 | 3.5 | 4900 | 12.25 | 245 |
| 43 | 67 | 3.5 | 4489 | 12.25 | 234.5 |
| 44 | 70 | 3 | 4900 | 9 | 210 |
| 45 | 73 | 3 | 5329 | 9 | 219 |
| 46 | 67 | 3.5 | 4489 | 12.25 | 234.5 |
| 47 | 85 | 4 | 7225 | 16 | 340 |
| 48 | 76 | 4 | 5776 | 16 | 304 |
| 49 | 70 | 3.5 | 4900 | 12.25 | 245 |
| 50 | 67 | 3 | 4489 | 9 | 201 |
| 51 | 64 | 4 | 4096 | 16 | 256 |
| 52 | 85 | 4 | 7225 | 16 | 340 |
| 53 | 70 | 4 | 4900 | 16 | 280 |
| 54 | 85 | 4 | 7225 | 16 | 340 |
| 55 | 70 | 3 | 4900 | 9 | 210 |
| 56 | 64 | 4 | 4096 | 16 | 256 |
| TOTAL | $\mathbf{4 0 7 0}$ | $\mathbf{2 0 3 . 5}$ | $\mathbf{2 9 9 8 8 2}$ | $\mathbf{7 4 9 . 2 5}$ | $\mathbf{1 4 8 7 8}$ |

$$
\begin{aligned}
& r=\frac{n . \Sigma x y-\Sigma x . \Sigma y}{\sqrt{\left(n\left(\Sigma x^{2}\right)-(\Sigma x)^{2}\right)\left(n\left(\Sigma y^{2}\right)-(\Sigma y)^{2}\right)}} \\
& r=\frac{(56.14878)-(4070.203 .5)}{\sqrt{((56.29982)-16564900)((56.749 .25)-41412.25)}}
\end{aligned}
$$

$$
r=\frac{4923}{\sqrt{(228492)(545.75)}}
$$

$$
r=\frac{4923}{11166.89}
$$

$$
r=0.440
$$

## APPENDIX 12

## The Computation Table of Pearson R (Second Test)

The Computation Table of Pearson R between Reading and Writing Components:
Content

| No. | X | Y | $\mathrm{X}^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 70 | 23.5 | 4900 | 552.25 | 1645 |
| 2 | 58 | 16.5 | 3364 | 272.25 | 957 |
| 3 | 70 | 23.5 | 4900 | 552.25 | 1645 |
| 4 | 76 | 21.5 | 5776 | 462.25 | 1634 |
| 5 | 73 | 23 | 5329 | 529 | 1679 |
| 6 | 67 | 22 | 4489 | 484 | 1474 |
| 7 | 79 | 24 | 6241 | 576 | 1896 |
| 8 | 76 | 23 | 5776 | 529 | 1748 |
| 9 | 79 | 21 | 6241 | 441 | 1659 |
| 10 | 67 | 23 | 4489 | 529 | 1541 |
| 11 | 61 | 21.5 | 3721 | 462.25 | 1311.5 |
| 12 | 70 | 23 | 4900 | 529 | 1610 |
| 13 | 64 | 20 | 4096 | 400 | 1280 |
| 14 | 76 | 25.5 | 5776 | 650.25 | 1938 |
| 15 | 61 | 21 | 3721 | 441 | 1281 |
| 16 | 67 | 22.5 | 4489 | 506.25 | 1507.5 |
| 17 | 73 | 21 | 5329 | 441 | 1533 |
| 18 | 76 | 23.5 | 5776 | 552.25 | 1786 |
| 19 | 79 | 23.5 | 6241 | 552.25 | 1856.5 |
| 20 | 85 | 24.5 | 7225 | 600.25 | 2082.5 |
| 21 | 70 | 20.5 | 4900 | 420.25 | 1435 |
| 22 | 70 | 21 | 4900 | 441 | 1470 |
| 23 | 79 | 20 | 6241 | 400 | 1580 |
| 24 | 76 | 23.5 | 5776 | 552.25 | 1786 |
| 25 | 67 | 24 | 4489 | 576 | 1608 |
| 26 | 73 | 22.5 | 5329 | 506.25 | 1642.5 |
| 27 | 58 | 21 | 3364 | 441 | 1218 |
| 28 | 73 | 23.5 | 5329 | 552.25 | 1715.5 |
| 29 | 70 | 24 | 4900 | 576 | 1680 |
| 30 | 73 | 23 | 5329 | 529 | 1679 |
| 31 | 70 | 24 | 4900 | 576 | 1680 |
| 32 | 76 | 25 | 5776 | 625 | 1900 |


| 33 | 79 | 22 | 6241 | 484 | 1738 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 34 | 76 | 24 | 5776 | 576 | 1824 |
| 35 | 70 | 22.5 | 4900 | 506.25 | 1575 |
| 36 | 82 | 25 | 6724 | 625 | 2050 |
| 37 | 67 | 19.5 | 4489 | 380.25 | 1306.5 |
| 38 | 79 | 24 | 6241 | 576 | 1896 |
| 39 | 70 | 23 | 4900 | 529 | 1610 |
| 40 | 76 | 24 | 5776 | 576 | 1824 |
| 41 | 73 | 23.5 | 5329 | 552.25 | 1715.5 |
| 42 | 67 | 23.5 | 4489 | 552.25 | 1574.5 |
| 43 | 73 | 24.5 | 5329 | 600.25 | 1788.5 |
| 44 | 70 | 24 | 4900 | 576 | 1680 |
| 45 | 85 | 27.5 | 7225 | 756.25 | 2337.5 |
| 46 | 73 | 25 | 5329 | 625 | 1825 |
| 47 | 64 | 23 | 4096 | 529 | 1472 |
| 48 | 76 | 23.5 | 5776 | 552.25 | 1786 |
| 49 | 79 | 24.5 | 6241 | 600.25 | 1935.5 |
| 50 | 73 | 25.5 | 5329 | 650.25 | 1861.5 |
| 51 | 67 | 22.5 | 4489 | 506.25 | 1507.5 |
| 52 | 76 | 23.5 | 5776 | 552.25 | 1786 |
| 53 | 64 | 23 | 4096 | 529 | 1472 |
| 54 | 67 | 22.5 | 4489 | 506.25 | 1507.5 |
| 55 | 73 | 22 | 5329 | 484 | 1606 |
| 56 | 76 | 24 | 5776 | 576 | 1824 |
| TOTAL | 4037 | $\mathbf{1 2 8 5}$ | $\mathbf{2 9 3 0 5 7}$ | 29656.5 | $\mathbf{9 2 9 6 0 . 5}$ |
|  | $(\Sigma x)^{2}=16297369$ | $(\Sigma y)^{2}=1651225$ |  |  |  |

$$
\begin{aligned}
& r=\frac{n . \Sigma x y-\Sigma x . \Sigma y}{\sqrt{\left(n\left(\Sigma x^{2}\right)-(\Sigma x)^{2}\right)\left(n\left(\Sigma y^{2}\right)-(\Sigma y)^{2}\right)}} \\
& r=\frac{(56.92960 .5)-(4037.1285)}{\sqrt{((56.293057)-16297369)((56.29656 .5)-1651225)}} \\
& r=\frac{18243}{\sqrt{(113823)(9539)}} \\
& r=\frac{18243}{32950.84} \\
& r=0.553
\end{aligned}
$$

The Computation Table of Pearson R between Reading and Writing Components:
Organization

| No. | X | Y | $\mathrm{X}^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 70 | 13.5 | 4900 | 182.25 | 945 |
| 2 | 58 | 13 | 3364 | 169 | 754 |
| 3 | 70 | 14.5 | 4900 | 210.25 | 1015 |
| 4 | 76 | 15.5 | 5776 | 240.25 | 1178 |
| 5 | 73 | 16.5 | 5329 | 272.25 | 1204.5 |
| 6 | 67 | 15.5 | 4489 | 240.25 | 1038.5 |
| 7 | 79 | 15.5 | 6241 | 240.25 | 1224.5 |
| 8 | 76 | 15 | 5776 | 225 | 1140 |
| 9 | 79 | 16 | 6241 | 256 | 1264 |
| 10 | 67 | 15.5 | 4489 | 240.25 | 1038.5 |
| 11 | 61 | 14.5 | 3721 | 210.25 | 884.5 |
| 12 | 70 | 16 | 4900 | 256 | 1120 |
| 13 | 64 | 14.5 | 4096 | 210.25 | 928 |
| 14 | 76 | 15.5 | 5776 | 240.25 | 1178 |
| 15 | 61 | 15 | 3721 | 225 | 915 |
| 16 | 67 | 15 | 4489 | 225 | 1005 |
| 17 | 73 | 14.5 | 5329 | 210.25 | 1058.5 |
| 18 | 76 | 12.5 | 5776 | 156.25 | 950 |
| 19 | 79 | 14.5 | 6241 | 210.25 | 1145.5 |
| 20 | 85 | 16.5 | 7225 | 272.25 | 1402.5 |
| 21 | 70 | 14 | 4900 | 196 | 980 |
| 22 | 70 | 14.5 | 4900 | 210.25 | 1015 |
| 23 | 79 | 17.5 | 6241 | 306.25 | 1382.5 |
| 24 | 76 | 15.5 | 5776 | 240.25 | 1178 |
| 25 | 67 | 15.5 | 4489 | 240.25 | 1038.5 |
| 26 | 73 | 14 | 5329 | 196 | 1022 |
| 27 | 58 | 15.5 | 3364 | 240.25 | 899 |
| 28 | 73 | 14.5 | 5329 | 210.25 | 1058.5 |
| 29 | 70 | 17 | 4900 | 289 | 1190 |
| 30 | 73 | 18 | 5329 | 324 | 1314 |
| 31 | 70 | 16 | 4900 | 256 | 1120 |
| 32 | 76 | 17.5 | 5776 | 306.25 | 1330 |
| 33 | 79 | 16.5 | 6241 | 272.25 | 1303.5 |
| 34 | 76 | 17 | 5776 | 289 | 1292 |
| 35 | 70 | 15.5 | 4900 | 240.25 | 1085 |
| 36 | 82 | 17.5 | 6724 | 306.25 | 1435 |


| 37 | 67 | 14 | 4489 | 196 | 938 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 38 | 79 | 17 | 6241 | 289 | 1343 |
| 39 | 70 | 15 | 4900 | 225 | 1050 |
| 40 | 76 | 17 | 5776 | 289 | 1292 |
| 41 | 73 | 17 | 5329 | 289 | 1241 |
| 42 | 67 | 15 | 4489 | 225 | 1005 |
| 43 | 73 | 17 | 5329 | 289 | 1241 |
| 44 | 70 | 15.5 | 4900 | 240.25 | 1085 |
| 45 | 85 | 17.5 | 7225 | 306.25 | 1487.5 |
| 46 | 73 | 17.5 | 5329 | 306.25 | 1277.5 |
| 47 | 64 | 16.5 | 4096 | 272.25 | 1056 |
| 48 | 76 | 15 | 5776 | 225 | 1140 |
| 49 | 79 | 15.5 | 6241 | 240.25 | 1224.5 |
| 50 | 73 | 18 | 5329 | 324 | 1314 |
| 51 | 67 | 14.5 | 4489 | 210.25 | 971.5 |
| 52 | 76 | 15.5 | 5776 | 240.25 | 1178 |
| 53 | 64 | 14.5 | 4096 | 210.25 | 928 |
| 54 | 67 | 15 | 4489 | 225 | 1005 |
| 55 | 73 | 14 | 5329 | 196 | 1022 |
| 56 | 76 | 15 | 5776 | 225 | 1140 |
| TOTAL | 4037 | $\mathbf{8 7 1}$ | $\mathbf{2 9 3 0 5 7}$ | $\mathbf{1 3 6 3 7}$ | $\mathbf{6 2 9 7 1}$ |
|  | $(\Sigma x)^{2}=16297369$ | $(\Sigma y)^{2}=758641$ |  |  |  |

$$
\begin{aligned}
& r=\frac{n . \Sigma x y-\Sigma x . \Sigma y}{\sqrt{\left(n\left(\Sigma x^{2}\right)-(\Sigma x)^{2}\right)\left(n\left(\Sigma y^{2}\right)-(\Sigma y)^{2}\right)}} \\
& r=\frac{(56.62971)-(4037.871)}{\sqrt{((56.293057)-16297369)((56.13637)-758641)}} \\
& r=\frac{10149}{\sqrt{(113823)(5031)}} \\
& r=\frac{10149}{23929.97} \\
& r=0.424
\end{aligned}
$$

The Computation Table of Pearson R between Reading and Writing Components:
Vocabulary

| No. | X | Y | $\mathrm{X}^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 70 | 14.5 | 4900 | 210.25 | 1015 |
| 2 | 58 | 13.5 | 3364 | 182.25 | 783 |
| 3 | 70 | 14.5 | 4900 | 210.25 | 1015 |
| 4 | 76 | 14 | 5776 | 196 | 1064 |
| 5 | 73 | 16.5 | 5329 | 272.25 | 1204.5 |
| 6 | 67 | 14 | 4489 | 196 | 938 |
| 7 | 79 | 14.5 | 6241 | 210.25 | 1145.5 |
| 8 | 76 | 15 | 5776 | 225 | 1140 |
| 9 | 79 | 16 | 6241 | 256 | 1264 |
| 10 | 67 | 14.5 | 4489 | 210.25 | 971.5 |
| 11 | 61 | 15 | 3721 | 225 | 915 |
| 12 | 70 | 15 | 4900 | 225 | 1050 |
| 13 | 64 | 14 | 4096 | 196 | 896 |
| 14 | 76 | 16 | 5776 | 256 | 1216 |
| 15 | 61 | 13.5 | 3721 | 182.25 | 823.5 |
| 16 | 67 | 14.5 | 4489 | 210.25 | 971.5 |
| 17 | 73 | 13.5 | 5329 | 182.25 | 985.5 |
| 18 | 76 | 14.5 | 5776 | 210.25 | 1102 |
| 19 | 79 | 14.5 | 6241 | 210.25 | 1145.5 |
| 20 | 85 | 16.5 | 7225 | 272.25 | 1402.5 |
| 21 | 70 | 15 | 4900 | 225 | 1050 |
| 22 | 70 | 15 | 4900 | 225 | 1050 |
| 23 | 79 | 14.5 | 6241 | 210.25 | 1145.5 |
| 24 | 76 | 15 | 5776 | 225 | 1140 |
| 25 | 67 | 14.5 | 4489 | 210.25 | 971.5 |
| 26 | 73 | 15.5 | 5329 | 240.25 | 1131.5 |
| 27 | 58 | 13.5 | 3364 | 182.25 | 783 |
| 28 | 73 | 13.5 | 5329 | 182.25 | 985.5 |
| 29 | 70 | 15 | 4900 | 225 | 1050 |
| 30 | 73 | 15 | 5329 | 225 | 1095 |
| 31 | 70 | 16 | 4900 | 256 | 1120 |
| 32 | 76 | 15 | 5776 | 225 | 1140 |
| 33 | 79 | 15.5 | 6241 | 240.25 | 1224.5 |
| 34 | 76 | 18 | 5776 | 324 | 1368 |
| 35 | 70 | 15.5 | 4900 | 240.25 | 1085 |
| 36 | 82 | 16.5 | 6724 | 272.25 | 1353 |


| 37 | 67 | 14 | 4489 | 196 | 938 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 38 | 79 | 15 | 6241 | 225 | 1185 |
| 39 | 70 | 15.5 | 4900 | 240.25 | 1085 |
| 40 | 76 | 16.5 | 5776 | 272.25 | 1254 |
| 41 | 73 | 16 | 5329 | 256 | 1168 |
| 42 | 67 | 15.5 | 4489 | 240.25 | 1038.5 |
| 43 | 73 | 15 | 5329 | 225 | 1095 |
| 44 | 70 | 15 | 4900 | 225 | 1050 |
| 45 | 85 | 16.5 | 7225 | 272.25 | 1402.5 |
| 46 | 73 | 15 | 5329 | 225 | 1095 |
| 47 | 64 | 16 | 4096 | 256 | 1024 |
| 48 | 76 | 14.5 | 5776 | 210.25 | 1102 |
| 49 | 79 | 16 | 6241 | 256 | 1264 |
| 50 | 73 | 17.5 | 5329 | 306.25 | 1277.5 |
| 51 | 67 | 14 | 4489 | 196 | 938 |
| 52 | 76 | 15 | 5776 | 225 | 1140 |
| 53 | 64 | 15.5 | 4096 | 240.25 | 992 |
| 54 | 67 | 15 | 4489 | 225 | 1005 |
| 55 | 73 | 14.5 | 5329 | 210.25 | 1058.5 |
| 56 | 76 | 15.5 | 5776 | 240.25 | 1178 |
| TOTAL | 4037 | $\mathbf{8 4 4 . 5}$ | $\mathbf{2 9 3 0 5 7}$ | $\mathbf{1 2 7 8 8 . 2 5}$ | $\mathbf{6 1 0 3 0} 5$ |
|  | $(\Sigma x)^{2}=16297369$ | $(\Sigma y)^{2}=713180.25$ |  |  |  |

$$
r=\frac{n \cdot \Sigma x y-\Sigma x . \Sigma y}{\sqrt{\left(n\left(\Sigma x^{2}\right)-(\Sigma x)^{2}\right)\left(n\left(\Sigma y^{2}\right)-(\Sigma y)^{2}\right)}}
$$

$$
r=\frac{(56.61030 .5)-(4037.844 .5)}{\sqrt{((56.293057)-16297369)((56.12788 .25)-713180.25)}}
$$

8461.5
$r=\frac{}{\sqrt{(113823)(2961.75)}}$
$r=\frac{8461.5}{18360.7}$
$r=0.460$

The Computation Table of Pearson R between Reading and Writing Components: Language Use

| No. | X | Y | $\mathrm{X}^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 70 | 15 | 4900 | 225 | 1050 |
| 2 | 58 | 14.5 | 3364 | 210.25 | 841 |
| 3 | 70 | 14.5 | 4900 | 210.25 | 1015 |
| 4 | 76 | 13.5 | 5776 | 182.25 | 1026 |
| 5 | 73 | 14.5 | 5329 | 210.25 | 1058.5 |
| 6 | 67 | 13 | 4489 | 169 | 871 |
| 7 | 79 | 15 | 6241 | 225 | 1185 |
| 8 | 76 | 14 | 5776 | 196 | 1064 |
| 9 | 79 | 15.5 | 6241 | 240.25 | 1224.5 |
| 10 | 67 | 13 | 4489 | 169 | 871 |
| 11 | 61 | 13 | 3721 | 169 | 793 |
| 12 | 70 | 14.5 | 4900 | 210.25 | 1015 |
| 13 | 64 | 13.5 | 4096 | 182.25 | 864 |
| 14 | 76 | 15 | 5776 | 225 | 1140 |
| 15 | 61 | 13 | 3721 | 169 | 793 |
| 16 | 67 | 14 | 4489 | 196 | 938 |
| 17 | 73 | 13.5 | 5329 | 182.25 | 985.5 |
| 18 | 76 | 14 | 5776 | 196 | 1064 |
| 19 | 79 | 15 | 6241 | 225 | 1185 |
| 20 | 85 | 15.5 | 7225 | 240.25 | 1317.5 |
| 21 | 70 | 13.5 | 4900 | 182.25 | 945 |
| 22 | 70 | 13.5 | 4900 | 182.25 | 945 |
| 23 | 79 | 14 | 6241 | 196 | 1106 |
| 24 | 76 | 15 | 5776 | 225 | 1140 |
| 25 | 67 | 14 | 4489 | 196 | 938 |
| 26 | 73 | 15 | 5329 | 225 | 1095 |
| 27 | 58 | 13 | 3364 | 169 | 754 |
| 28 | 73 | 13 | 5329 | 169 | 949 |
| 29 | 70 | 15 | 4900 | 225 | 1050 |
| 30 | 73 | 15 | 5329 | 225 | 1095 |
| 31 | 70 | 15 | 4900 | 225 | 1050 |
| 32 | 76 | 15 | 5776 | 225 | 1140 |
| 33 | 79 | 15.5 | 6241 | 240.25 | 1224.5 |
| 34 | 76 | 14 | 5776 | 196 | 1064 |
| 35 | 70 | 15 | 4900 | 225 | 1050 |
| 36 | 82 | 14.5 | 6724 | 210.25 | 1189 |


| 37 | 67 | 13.5 | 4489 | 182.25 | 904.5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 38 | 79 | 15.5 | 6241 | 240.25 | 1224.5 |
| 39 | 70 | 14.5 | 4900 | 210.25 | 1015 |
| 40 | 76 | 15 | 5776 | 225 | 1140 |
| 41 | 73 | 16.5 | 5329 | 272.25 | 1204.5 |
| 42 | 67 | 14 | 4489 | 196 | 938 |
| 43 | 73 | 15.5 | 5329 | 240.25 | 1131.5 |
| 44 | 70 | 14.5 | 4900 | 210.25 | 1015 |
| 45 | 85 | 16 | 7225 | 256 | 1360 |
| 46 | 73 | 16 | 5329 | 256 | 1168 |
| 47 | 64 | 15.5 | 4096 | 240.25 | 992 |
| 48 | 76 | 15 | 5776 | 225 | 1140 |
| 49 | 79 | 14.5 | 6241 | 210.25 | 1145.5 |
| 50 | 73 | 15 | 5329 | 225 | 1095 |
| 51 | 67 | 15 | 4489 | 225 | 1005 |
| 52 | 76 | 14 | 5776 | 196 | 1064 |
| 53 | 64 | 14 | 4096 | 196 | 896 |
| 54 | 67 | 14 | 4489 | 196 | 938 |
| 55 | 73 | 14.5 | 5329 | 210.25 | 1058.5 |
| 56 | 76 | 14.5 | 5776 | 210.25 | 1102 |
| TOTAL | 4037 | $\mathbf{8 1 0 . 5}$ | $\mathbf{2 9 3 0 5 7}$ | $\mathbf{1 1 7 7 0 . 7 5}$ | 58572.5 |
|  | $(\Sigma x)^{2}=16297369$ | $(\Sigma y)^{2}=656910.3$ |  |  |  |

$$
\begin{aligned}
& r=\frac{n . \Sigma x y-\Sigma x . \Sigma y}{\sqrt{\left(n\left(\Sigma x^{2}\right)-(\Sigma x)^{2}\right)\left(n\left(\Sigma y^{2}\right)-(\Sigma y)^{2}\right)}} \\
& r=\frac{(56.58572 .5)-(4037.810 .5)}{\sqrt{((56.293057)-16297369)((56.11770 .75)-656910.3)}} \\
& r=\frac{8071.5}{\sqrt{(113823)(2251.75)}} \\
& r=\frac{8071.5}{16009.4} \\
& r=0.504
\end{aligned}
$$

The Computation Table of Pearson R between Reading and Writing Components:
Mechanics

| No. | X | Y | $\mathrm{X}^{2}$ | $\mathbf{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 70 | 4 | 4900 | 16 | 280 |
| 2 | 58 | 3 | 3364 | 9 | 174 |
| 3 | 70 | 4 | 4900 | 16 | 280 |
| 4 | 76 | 4 | 5776 | 16 | 304 |
| 5 | 73 | 4 | 5329 | 16 | 292 |
| 6 | 67 | 4 | 4489 | 16 | 268 |
| 7 | 79 | 4 | 6241 | 16 | 316 |
| 8 | 76 | 4 | 5776 | 16 | 304 |
| 9 | 79 | 4 | 6241 | 16 | 316 |
| 10 | 67 | 4 | 4489 | 16 | 268 |
| 11 | 61 | 4 | 3721 | 16 | 244 |
| 12 | 70 | 4 | 4900 | 16 | 280 |
| 13 | 64 | 3 | 4096 | 9 | 192 |
| 14 | 76 | 4 | 5776 | 16 | 304 |
| 15 | 61 | 4 | 3721 | 16 | 244 |
| 16 | 67 | 4 | 4489 | 16 | 268 |
| 17 | 73 | 4 | 5329 | 16 | 292 |
| 18 | 76 | 3 | 5776 | 9 | 228 |
| 19 | 79 | 4 | 6241 | 16 | 316 |
| 20 | 85 | 4 | 7225 | 16 | 340 |
| 21 | 70 | 3.5 | 4900 | 12.25 | 245 |
| 22 | 70 | 3.5 | 4900 | 12.25 | 245 |
| 23 | 79 | 4 | 6241 | 16 | 316 |
| 24 | 76 | 3.5 | 5776 | 12.25 | 266 |
| 25 | 67 | 4 | 4489 | 16 | 268 |
| 26 | 73 | 4 | 5329 | 16 | 292 |
| 27 | 58 | 3 | 3364 | 9 | 174 |
| 28 | 73 | 4 | 5329 | 16 | 292 |
| 29 | 70 | 4 | 4900 | 16 | 280 |
| 30 | 73 | 4 | 5329 | 16 | 292 |
| 31 | 70 | 3.5 | 4900 | 12.25 | 245 |
| 32 | 76 | 4 | 5776 | 16 | 304 |
| 33 | 79 | 4 | 6241 | 16 | 316 |
| 34 | 76 | 4 | 5776 | 16 | 304 |
| 35 | 70 | 4 | 4900 | 16 | 280 |
| 36 | 82 | 4 | 6724 | 16 | 328 |


| 37 | 67 | 3.5 | 4489 | 12.25 | 234.5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 38 | 79 | 4 | 6241 | 16 | 316 |
| 39 | 70 | 3.5 | 4900 | 12.25 | 245 |
| 40 | 76 | 3.5 | 5776 | 12.25 | 266 |
| 41 | 73 | 3.5 | 5329 | 12.25 | 255.5 |
| 42 | 67 | 4 | 4489 | 16 | 268 |
| 43 | 73 | 3.5 | 5329 | 12.25 | 255.5 |
| 44 | 70 | 4 | 4900 | 16 | 280 |
| 45 | 85 | 4 | 7225 | 16 | 340 |
| 46 | 73 | 4 | 5329 | 16 | 292 |
| 47 | 64 | 4 | 4096 | 16 | 256 |
| 48 | 76 | 3.5 | 5776 | 12.25 | 266 |
| 49 | 79 | 4 | 6241 | 16 | 316 |
| 50 | 73 | 4 | 5329 | 16 | 292 |
| 51 | 67 | 3.5 | 4489 | 12.25 | 234.5 |
| 52 | 76 | 4 | 5776 | 16 | 304 |
| 53 | 64 | 3.5 | 4096 | 12.25 | 224 |
| 54 | 67 | 4 | 4489 | 16 | 268 |
| 55 | 73 | 4 | 5329 | 16 | 292 |
| 56 | 76 | 4 | 5776 | 16 | 304 |
| TOTAL | $\mathbf{4 0 3 7}$ | $\mathbf{2 1 4}$ | $\mathbf{2 9 3 0 5 7}$ | $\mathbf{8 2 3}$ | $\mathbf{1 5 4 6 6}$ |

$$
\begin{aligned}
& r=\frac{n . \Sigma x y-\Sigma x . \Sigma y}{\sqrt{\left(n\left(\Sigma x^{2}\right)-(\Sigma x)^{2}\right)\left(n\left(\Sigma y^{2}\right)-(\Sigma y)^{2}\right)}} \\
& r=\frac{(56.15466)-(4037.214)}{\sqrt{((56.293057)-16297369)((56.823)-45796)}}
\end{aligned}
$$

$$
r=\frac{2178}{\sqrt{(113823)(292)}}
$$

$$
r=\frac{2178}{5675.09}
$$

$$
r=0.377
$$

