



The Effect Of Herringbone Teaching Technique To The Reading Comprehension Ability Of Grade X Student's Of Smk Kesehatan Tridarma Pematang Siantar Of Narrative Text

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Abstrak

Tujuan penelitian ini adalah untuk mengetahui pengaruh teknik pengajaran herringbone terhadap kemampuan siswa kelas X SMK Kesehatan Tridarma Pematangsiantar dalam pemahaman membaca teks naratif. Penelitian ini menggunakan desain kuantitatif dan jenis penelitian ini adalah metode Quasi-Experimental. Data dalam penelitian ini dikumpulkan dan diperoleh melalui tes dan observasi. Subyek penelitian ini adalah siswa kelas X SMK Kesehatan Tridarma Pematangsiantar. Sampel penelitian ini adalah X-Keperawatan sebagai kelompok eksperimen dan X-Farmasi sebagai kelompok kontrol. Jumlah sampel sebanyak 40 siswa yang dipilih dengan teknik random sampling. Instrumen penelitian ini adalah tes. Pengujian dilakukan dengan pre-test dan post-test pada kelas eksperimen dan kontrol. Hasil penelitian ini menunjukkan bahwa peneliti menemukan bahwa penggunaan teknik pengajaran Herringbone berpengaruh secara signifikan terhadap kemampuan membaca pemahaman siswa. Hal ini terlihat dari beberapa fakta, yaitu: 1) Rerata post-test kelompok eksperimen setelah perlakuan adalah 86,75, sedangkan kelompok kontrol adalah 72, 2) Standar deviasi post-test kelompok eksperimen setelah perlakuan adalah 6,34, sedangkan kelompok kontrol adalah 8,34, 3) Uji-t setelah perlakuan adalah 6,30 dan T-tabel pada signifikansi 0,05 adalah 1,9. Jadi hipotesis dapat dibangun dengan $(6,30 > 1,9)$, artinya nilai t-test 6,30 lebih tinggi dari t-tabel 1,9. Oleh karena itu H_a diterima dan H_0 ditolak. Penelitian ini menunjukkan bahwa teknik pengajaran Herringbone dapat memiliki pengaruh yang baik pada pemahaman bacaan.

Kata Kunci : *Teknik pengajaran herringbone, Pemahaman Membaca, Teks Narasi*

1949-1961

Abstract

The purpose of this study is to find out the effect of herringbone teaching technique to the ability of grade X students of SMK Kesehatan Tridarma Pematangsiantar on the reading comprehension on a narrative text. This research used quantitative design and the type of this research is Quasi-Experimental method. The data for this study was collected and obtained through test and observation. The subjects of this study were X grade students of SMK Kesehatan Tridarma Pematangsiantar. The sample of this research were X-Nursing as the experimental group and X-Pharmacy as the control group. The total of the sample were 40 students who were selected by random sampling technique. The instrument of this research was the test. The test was conducted by pre-test and post-test in experimental and control class. The result of this research showed that the researcher found that using Herringbone teaching technique significantly affect the students ability in reading comprehension. This is can be seen from some facts, namely: 1) Mean post-test of

experimental group after treatment is 86,75, while control group is 72,2. 2) Standard deviation post-test of experimental group after treatment is 6,34, while control group is 8,34, 3) T-test after treatment is 6,30 and T-table at 0,05 of significance is 1,9. So the hypothesis could be constructed with $(6,30 > 1,9)$, that means the score of t-test 6,30 was higher than t-table 1,9. Therefore H_a is accepted and H_0 is rejected. This research shows that the Herringbone teaching technique can have a good influence on reading comprehension.

Keywords: : *Herringbone teaching technique, Reading Comprehension, Narrative text*

INTRODUCTION

Process of getting idea of a text is called reading comprehension. However, we need to know that reading comprehension is not as easy thing. And in fact, reading is still be a serious problem on Indonesia's education (Sitio, 2020). Which means that in reading comprehension, we must take effort and the ability to understand the text thoroughly. That is also the main problem that I discovered at X grade students of SMK kesehatan tridarma pematangsiantar. They still have difficulty in understanding words' meaning, also sentences' essences. Ability to read and make meaning out of what is read is probably one of the greatest achievement as a students (Manansala & Jimenez, 2020). However, in the real situation, the students have not achieve curriculum expectations and have low reading comprehension skill (Manihuruk & Siahaan, 2020).

The low reading comprehension ability of these students is influenced by many things, one of which is COVID-19 pandemic situation, which compels educational institutions on conducting online learning. This causes students learning methods to be less effective. To achieve maximum learning outcomes, learners are expected to be able to be active in learning and reading comprehension is one of them (Anggara, 2021). Since 2020 we have faced the Covid-19 pandemic and it brings a lot of big changes, change on several fields, especially on education field. At beginning of Covid-19, all schools were closed. That way, online learning inevitably has to be done because of the limited movement between students and teachers. At the time of online learning, the students could not follow the lesson well. Some factors make learning from home ineffective (Arisman & Haryanti, 2019).

Therefore, to solve this problem, the application of the herringbone technique is expected can enhance learner's reading comprehension skills. Purpose of using the herringbone technique because by using this technique, the students can set up stalwart details of main idea in simple and fun way (Dhillon et al., 2020). The herringbone teaching technique form consists of squares and lines. The box is filled by 5wh+1h which is the basic question (Habibah, 2020). Role of question is for detecting particular and prevalent information in each paragraph in text. While line is used to write answers. Hereafter, main idea of paragraph can be detected by relating all states in diagram or graph (Felly et al., 2019). Helpfulness of herringbone makes learners more focused on understanding text. They became more energetic due to herringbone form was new and made learners curious. Further, this approach will have an effect on their studying comprehension achievement (Iliyasu & Etikan, 2021).

To achieve the goal of education, a curriculum is acquired. In Indonesia, 2013 curriculum is currently in effect, which is the result of a improvement from the previous curriculum, namely the Kurikulum tingkat satuan pendidikan (KTSP). National curriculum isn't unusualplace application of take a look at in school, which is designed to make certain national uniformity of content material and requirements in schooling. It's a curriculum capable of educating future competencies, communication skills, clear and critical thinking skills and the ability to examine the problem (Ministry of Education and Culture (Hidayati et al., 2020). Curriculum of 2013 was developed from a teacher as a center view to become a student as a center, from a passive learning to an active learning, from isolated learning

process to be an networked learning process and from the individual learning to become a group leaning or cooperative (Lumbantobing et al., 2020a). Therefore, the implementation of 2013 curriculum will be determined by the readiness of the teachers in implementing it in their teaching and learning process. With a teacher's belief and determination, a curriculum can be applied correctly because the new curriculum can only be implemented if there are competent teaching staff in it (Latifa, 2018).

On achieving goals of learning effectively, we must able to choose an appropriate approach, method and technique correctly (Lumbantobing et al., 2020b). And to achieve the desired learning goals, teachers are awaited to be adequate in choosing appropriate techniques when meet student learning needs. Method is implementation that surely takes place withinside the classroom (Munthe, 2022). The technique in question is in the form of certain tricks, strategies, or inventions that are used to achieve direct goals, which means that the technique is used to find a solution or answer in a fast and precise way. So that, the technique must be consistent with the method and the approach as well (Manansala & Jimenez, 2020). Based on Cambridge English Dictionary technique is a way of doing something that requires skill or thought, which requires special skills to do it. Technique is also a way of doing something that involves planning. In other words, a technique based on a book entitled techniques and principles in language teaching, said that action is a technique and thought is the principle (Algiovan, 2022). In other words, it can be concluded that technique is an action that requires good thought or planning.

Herringbone teaching technique is a part of graphic organizers. It's used to set up the assisting concept for the principle concept. According to Deegan (2006) as cited in Habibah Rifdatul (in 2021) said that herringbone teaching technique can develop comprehension of the main idea by using 5W+1H question in a fish skeleton diagram. It is called fish skeleton because this diagram or graphic exactly looks like a skeleton of herring fish. It helps students learn how to classify and organize information which refers to supporting details and main idea of a paragraph. It is very useful in comprehending a reading text.

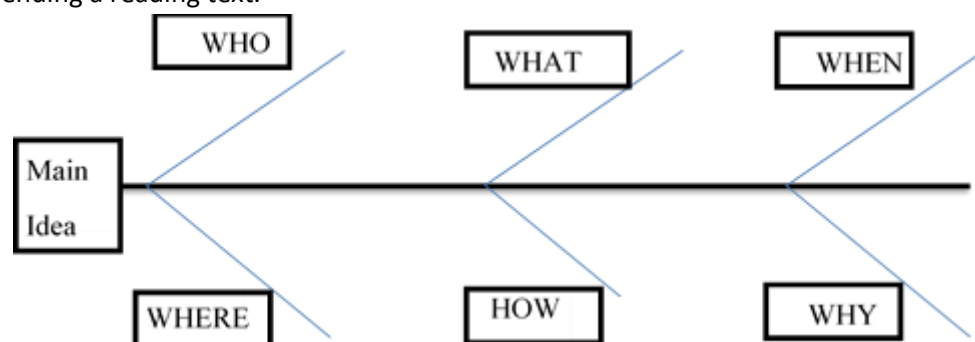


Figure 1. McKnight's Herringbone Diagram (2010)

From the descriptions above, we are able to see that herringbone coaching method is a way for coaching reading comprehension via way of means of imparting a detailed specification and the desired statistics framework of textual content via way of means of detailing 5W+1H query. The method is designed to assist freshman apprehend the principle concept. Furthermore in step with Margareth Bouchard, herringbone is a way which establishes comprehension of the principle concept via way of means of instance of fish skeleton wherein freshman write the principle concept at the spine of the fish diagram (Pasaribu et al., 2020). Herringbone method brings advantageous outcomes on analyzing comprehension, particularly of their hobby in giving thoughts (Putri et al., 2015).

From these, we are able to finish that herringbone method is a way for coaching reading comprehension via way of means of imparting detailed specification, also required statistics framework of the textual content via way of means of detailing who, what, in which, why, while, how on visible diagram of fish skeleton. It is designed to assist them apprehend the principle concept.

According Rohmah (in Qoliso, 2015), herringbone teaching technique has several benefits:

1. Learners have interaction greater withinside the elegance. When they behavior the herringbone, they may have activities to activated them withinside the elegance.
2. Herringbone excites learners approximately analyzing a textual content on account that they best give attention to answering the easy query.
3. Learners can also additionally percentage information about the textual content they've already study.
4. Learners experience and out of dull analyzing via those because the getting to know procedure makes use of a visible herringbone graphic.
5. Students are greater cushty to stumble on the principle concept of the textual content via herringbone.

There are few strategies coaching reading comprehension on narrative with use of the herringbone at school:

1. Students create a small group that contains four or five students in each group.
2. Instructor explains the principle approximately a story.
3. Instructor offers a story in every team.
4. The teacher draw and explains a herringbone teaching technique diagram on the whiteboard.
5. Give the student time to recite the whole text, provide them with replicas of the herringbone diagram, and request them to write solutions on papers.
6. Learners list principle concept the use of the info at diagram. The picture incorporates the main design.
7. Last, educator and learners discuss result that they o in the class.

Reading is an essential activity that is related to eyes. As one of the language skills, consisting of reader, text, then interaction of both of them. It can not be separated from the knowledge of every person, because what the author way can be specific from what readers receive. In relation to that, Johnson (in Rahila & Sakdiah, 2016) defined that reading is not just an interplay among reader and textual content, but more than it. Reading is a complex behavior that using a various strategies including problem solving strategy.

In addition, reading is an activities to get information by the use of eyes and mind to recognize what author thought. So that, the background of readers knowledge about the world and education will affect their achievement in reading comprehension (in Rajagopalan, 2019). There are several classifications on reading types. Grellet (in Saragih et al., 2022) mentioned types of reading, they are skimming and scanning, idea reading, exploratory reading, study reading, reading comprehension, critical reading, and analytical reading. Reading comprehension is an lively procedure to construct the which means and deriving the which means from associated textual content that worried phrase know-how or vocabulary in addition to questioning and reasoning. Graham and Hebert (in Siahaan, 2018) mentioned reading comprehension is procedure of comprehending a textual content entails actively growing meaning via way of means of bulding relationships amongst thoughts in textual content and among the textual content and know-how, ideals and experiences. It way that readers can integrate factors above, they may recognize the analyzing fabric without difficulty. There are several

components of comprehension skills in reading according to Heilman : a. Vocabulary mastery. b. Able to make conclusions. c. Able to understand the structure of the passages. d. Understand the author's point. e. Able to understand the sentences explicitly.

Narrative is one of text type towards 10th grade students in senior high school. Intention of this is to enhance students in understanding content of text and may discover the moral values contained in the narrative text. Furthermore, rakhmi said tht narrative is the events in chronological order in the story (in Sitio, 2020). In other words, narrative text recites the reader story, which aims on entertaining, provide moral and social values of the story. Accordingly, narrative is an imaginative story, also describe series of events from time to time from the beginning, middle, and end. According to Rakmi, there are three laguage features in a narrative text, such as: 1.Using action verb to express the physical activity of a human being. 2.Using temporal conjunction to relate one story to another. 3.using simple past tense to express that the events has happened.

According to Tompkins (in Nurhidayat, 2021), there are some elements of narrative text they are follows:1.Plot, The plot is a chronology of a story that implicates characters in a situation of conflicts. The plot is used o recite tale, which has concatenation of chronological occasions which might be connected. 2. Characters, A character is a figurein the story and it can be defined as a human or human like. Characters are a essential element in every story since, through character the reader can know a personality well and the character seems to come alive. 3. Setting, The setting is a background in a scene or narrative explaining the events elements, including time, place, and environment. 4. Point of view, This is one of an essential elements of a story defining the perspective from which a reader views the narrative story. It means that the point if view is used to allow the reader interpret the characters and narrative text events. 5. Theme, The theme is generally about the characters feelings and beliefs and can be explicit or implicit. The theme is often mentioned in a fable at the end, but in most tales, the theme appears in the characters feelinga, voice, and actions as they attempt to resolve the challenges that keep them from achieving their objectives.

Primarily according on description above, the researcher interested to research and as certain effect of herringbone coaching approach on learners' reading comprehension thru narrative text at SMK Kesehatan Tridarma Pematangsiantar.

METHOD

This is quantitative study via way of means of the use of quasi experimental layout. quantitative studies makes use of goal dimension to get the numeric facts which might be used to reply questions or check (Sugiyono, 2021). In alternative words, quantitative studies are average for trying out goal theories via way of means of analyzing the connection amongst variable . This variables may be measured normally at instruments, in order that numbered facts may be analyzed use of statistical strategies :

Table 1. Research Design

Group	Pre-test	Treatment	Post-test
Experimental	✓	X A T1, T2, T3	✓
Control	✓	X B T1, T2, T3	✓

1. Experimental group: X A is teaching reading comprehension by herringbone teaching technique.
2. Control group: X B is teaching reading comprehension without herringbone teaching technique.
3. Treatment shows the comparison with the different methods.
4. Time allocation will assume to be equal namely:
5. T1: Teaching 1, T2: Teaching 2, T3: Teaching 3.

The researcher will commit the research at SMK Kesehatan Tridarma Pematangsiantar in Jln. Pdt. J. Wismar Saragih Pematangsiantar. The researcher do the research start from 16 May-04 June 2022. Arikunto (2013:173) as noted in Dhillon et al (2020) mentioned populace is described as all contributors of any properly described elegance of human beings, occasions, or objects. Population is likewise the organization of human beings which you need to discover approximately via way of means of doing all of your studies. In this research, the populace is the X grade of SMK Kesehatan Tridarma Pematangsiantar with 4 classes. The 1st class X-PHARMACY A (20), X-PHARMACY B (19), X-NURSING A (18), and X-NURSING B (20). The general of populace are seventy seven.

Independent variable is frequently known as stimulus, predictor, antecedent variable. It is variable which influences due to the alternate or emergence of established variable or usually known as an exogenous variable (Ridha, N. 2020). Independent variable is herringbone method. Herringbone is designed to assist learners arrange and take into account crucial info in textual content via way of means of the use of herringbone that could facilitate them to reap crucial info via way of means of asking six simple comprehension questions particularly who, what, while, in which, why and how.

Dependent variable frequently known as as output, standards and consequent variable. In Indonesian is known as bound variable. It's variable that affected or as a end result. Bound variable additionally known as endogenous variable (Sitio, 2020). In this study, learners' reading comprehension of narrative is dependent variable. Their reading comprehension of narrative is cappotential to recognize the information to be able to affected via herringbone as independent variable. Thus, there are 2 variables here. 1st is independent variable (Free Variable) is herringbone, and 2nd is dependent variable (bound variable) is reading comprehension (Nurhidayat, 2021).

Researcher used reading comprehension test to acquire data. It used to measure learners' fulfillment in reading comprehension of narrative via way of means of the use of herringbone. Data will allocate via pre-test and post test. Pre test will behavior on the primary assembly to apprehend the present reading comprehension ability on narrative text. Researcher offered treatment on experimental, and no treatment to control class. Then, after 3 meetings, posttest conducted on both classes. In gathering data, researcher used numerous steps:

1. Researcher choosing experimental and control class according on instructor's recommendation.
2. Researcher giving pretest to two classes. Pretest offered earlier than treatment. Test includes forty multiple choices query. This intended to decide learners' preliminary knowledge.
3. Researcher teach in three meeting to both classes. Experimental class taught by herringbone coaching, whilst control class taught by problem based learning approach. the
4. Researcher offers posttest after offers treatment in three meetings. Posttest additionally include forty multiple choices query. This ambitions to decide learners whether or not the herringbone is useful for their reading comprehension of narrative text.
5. And the last, researcher'll examine data. Score of pretest and posttest will calculate to measure effect of herringbone on learners' reading comprehension.

Arikunto (in Felly et al., 2019) mentioned instrument is device while researcher use a approach. In this study, researcher used test as instrument. They are pretest and posttest. According

to Educators et al (in Dhillon et al., 2020) in book, as cited in Siahaan, M. M. (Siahaan, 2018), the pretest was developed to clarify the extent of students' abilities and what students expect to learn and be able to do it. So that the teacher can prepare appropriate lesson plans to achieve desired goal. The pre-test gives before the researcher gives the treatment and then the post-test will give after treatment. Pre-test consist of 40 multiple choices and the post-test also consist of 40 multiple choices question.

The score of multiple choice is 2,5 for right item and 0 for wrong item. The 40 questions are about narrative text that takes from some sources, like internet, English books for tenth grade and other sources that containing narrative text. The test used here is according on national exam. All objects of the query were standarized via way of means of Indonesian goverment. This way the tests're already valid and reliable. On data analysis, researcher utilizes some formulas: Measuring students' score, Discovering mean score of each group, Discovering standard deviation of each group, Testing Hypothesis ; Finding standard error of difference of mean. Finding t-test, To examine data, researcher used ttest for independent sample formula. This is statistical test used on deciding whether the distinction among the way of 2 groups is statistically large, and herringbone had impact on learners reading comprehension cappotential on narrative texts.

RESULT AND DISCUSSION

Data Analysis

This chapter will discuss result that has been done which includes description of data analysis, research finding, and discussion of the results. Below are the explanation about the result of the research:

1. The effect of Herringbone teaching technique to the Reading Comprehension ability of grade X students of SMK Kesehatan Tridarma Pematangsiantar of Narrative Text

The following is the result of students scores of pre-test and post-test in experimental group :

Table 2. Pre and Post Test in Experimental Group

No	Students	Pre-test	Post-test	Range
1	AS	70	95	25
2	AFS	65	85	20
3	AS	65	90	25
4	ARR	60	80	20
5	AA	80	95	15
6	GJM	70	90	20
7	IJS	60	80	20
8	IMP	60	80	20
9	IAA	65	80	15
10	JMT	70	95	25
11	MNKS	60	85	25
12	NRNN	65	90	25
13	RKPH	80	100	20
14	RML	60	80	20
15	SRS	65	85	20
16	TEA	65	80	15
17	TPK	70	90	20
18	TAP	70	85	15

No	Students	Pre-test	Post-test	Range
19	WAT	60	80	20
20	WPS	70	90	20
	Σ	1330	1735	405
	Mean	66,5	86,75	20,25

Table shows the results of students reading comprehension ability, especially in understanding narrative texts in the pre-test and post-test in the experimental group. From the data, it can be seen that the result is as follows: the total score in the pre-test was 1330. Here, it can be calculated that the average score(mean) was 66,5. Then in the post-test, the total score was 1735 where the average score(mean) was 86,75.

- The effect of Small group discussion method to the reading comprehension ability of Grade X Students of SMK Kesehatan Tridarma Pematangsiantar of Narrative Text

The following is the result of students scores of pre-test and post-test in the control group:

Table 3. Pre and Post Test in Control Group

No	Students	Pre-test	Post-test	Range
1	AZT	70	65	-5
2	DS	65	75	10
3	EEPD	75	85	10
4	FSA	70	65	-5
5	HMVT	75	80	5
6	IG	60	70	10
7	ITS	80	90	10
8	JSP	65	70	5
9	MEYN	70	70	0
10	NA	60	80	20
11	NS	70	70	0
12	OS	65	65	0
13	OS	70	85	15
14	RS	60	65	5
15	RNMP	75	75	0
16	SS	60	65	5
17	SS	65	65	0
18	TA	65	60	-5
19	VDR	70	75	5
20	YMP	70	65	-5
	Σ	1360	1440	80
	Mean	68	72	4

Table shows the results of students reading comprehension ability, especially in understanding narrative texts in the pre-test and post-test in the control group. From the data, it can be seen that the result is as follows: the total score in the pre-test was 1360. Here, it can be

calculated that the average score(mean) was 68. Then in the post-test, the total score was 1440 where the average score(mean) was 72.

3. The Progress of Students after Treatment

Table The Progress of Students' Reading Comprehension Ability after Treatment:

Table 4. the results of the experimental class and the control class

Group	Pre-test	Post-test	Improvement
Control	68	72	4
Experimental	66,5	86,75	20,25

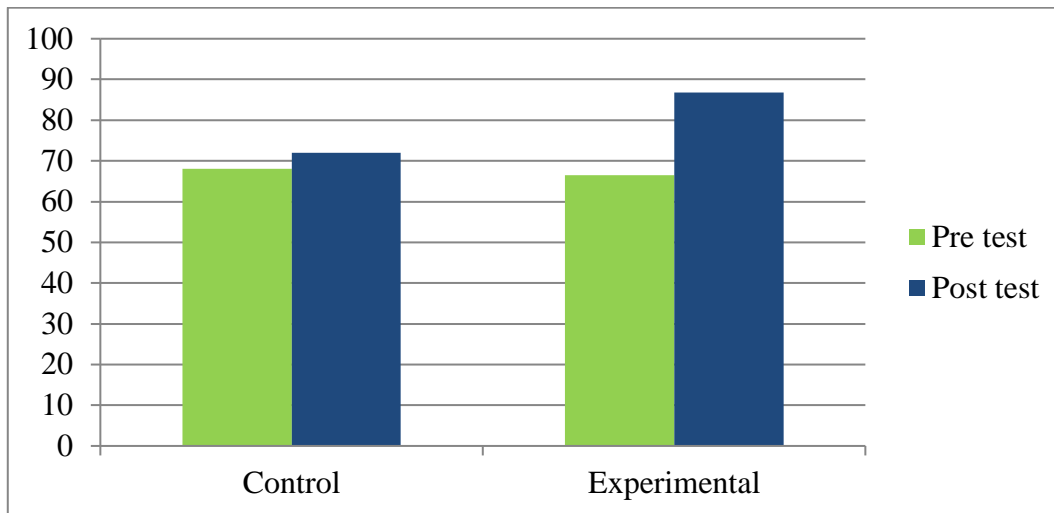


Figure 2. The Progress of both experimental and control group

4. The Differences of Post-test Score in Experimental and Control Group

Table 5. Post Test Scores in Experimental and Control Group and Its Difference

No.	Post Test Experimental	Post Test Control	Difference
1	95	65	30
2	85	75	10
3	90	85	5
4	80	65	15
5	95	80	15
6	90	70	20
7	80	90	-10
8	80	70	10
9	80	70	10
10	95	80	15
11	85	70	15
12	90	65	25
13	100	85	15
14	80	65	15

No.	Post Test Experimental	Post Test Control	Difference
15	85	75	10
16	80	65	15
17	90	65	25
18	85	60	25
19	80	75	5
20	90	65	25
Σ	1735	1440	295
Mean	86,75	72	14,75

From the table above, it can be seen that the students individual scores in post test in experimental and control group, and its difference or improvement scores the students got with and without using Herringbone Teaching Technique. Here, it can be seen that in experimental group, the total score which the students obtain was 1735 and the average score was 86,75. While in control group, the total score which the students obtain was 1440 and the average score was 72. The difference or the improvement as the whole students got in post test from experimental to control group was 295 or 14,75 point in average.

5. The Variance and Standard Deviation

Variance and Standard Deviation in Post Test of Experimental Group.

Table 6. Variance and Standard Deviation in Post Test of Experimental Group

No	Students	Score	Mean	Difference	Difference Squared
1	AS	95	86,75	8,25	68,0625
2	AFS	85	86,75	-1,75	3,0625
3	AS	90	86,75	3,25	10,5625
4	ARR	80	86,75	-6,75	45,5625
5	AA	95	86,75	8,25	68,0625
6	GJM	90	86,75	3,25	10,5625
7	IJS	80	86,75	-6,75	45,5625
8	IMP	80	86,75	-6,75	45,5625
9	IAA	80	86,75	-6,75	45,5625
10	JMT	95	86,75	8,25	68,0625
11	MNKS	85	86,75	-1,75	3,0625
12	NRNN	90	86,75	3,25	10,5625
13	RKPH	100	86,75	13,25	175,5625
14	RML	80	86,75	-6,75	45,5625
15	SRS	85	86,75	-1,75	3,0625
16	TEA	80	86,75	-6,75	45,5625
17	TPK	90	86,75	3,25	10,5625
18	TAP	85	86,75	-1,75	3,0625
19	WAT	80	86,75	-6,75	45,5625
20	WPS	90	86,75	3,25	10,5625
$\Sigma(x-\bar{X})^2 = \Sigma d^2$					763,75

By looking at the data on table 3.8, it can be seen that the total sum squares of the respondents at the time of administering the post test in experimental group was 763,75 points. Those points are necessarily required in order to determine the standard variation for post test in experimental group which is in turn compared to the same data at post test in control group.

The following is the standard deviation of post test in experimental group:

$$S^e = \sqrt{\frac{\sum d^2}{N - 1}}$$

$$S^e = \sqrt{\frac{763,75}{20 - 1}}$$

$$S^e = \sqrt{\frac{763,75}{19}}$$

$$S^e = \sqrt{40,19737}$$

$$S^e = 6,340139$$

$$S^e = 6,34$$

6. Variance and Standard Deviation in Post Test of Control Group.

Table 7. Variance and Standard Deviation in Post Test of Control Group

No	Students	Post-test	Mean	Difference	Difference Squared
1	AZT	65	72	-7	49
2	DS	75	72	3	9
3	EEPD	85	72	13	169
4	FSA	65	72	-7	49
5	HMVT	80	72	8	64
6	IG	70	72	-2	4
7	ITS	90	72	18	324
8	JSP	70	72	-2	4
9	MEYN	70	72	-2	4
10	NA	80	72	8	64
11	NS	70	72	-2	4
12	OS	65	72	-7	49
13	OS	85	72	13	169
14	RS	65	72	-7	49
15	RNMP	75	72	3	9
16	SS	65	72	-7	49
17	SS	65	72	-7	49
18	TA	60	72	-12	144
19	VDR	75	72	3	9
20	YMP	65	72	-7	49
$\sum(x-\bar{X})^2 = \sum d^2$					1320

By looking at the data on table 3.8, it can be seen that the total sum squares of the respondents at the time of administering the post test in control group was 1320 points. Those

points are necessarily required in order to determine the standard deviation for post test in control group which is in turn compared to the same data at post test in experimental group.

The following is the standard deviation of post test in control group:

$$S^c = \sqrt{\frac{\sum d^2}{N-1}}$$

$$S^c = \sqrt{\frac{1320}{20-1}}$$

$$S^c = \sqrt{\frac{1320}{19}}$$

$$S^c = \sqrt{69,47368}$$

$$S^c = 8,335088$$

$$S^c = 8,34$$

7. Testing Hypothesis

Standard Error of the Difference of Mean

$$SE(\chi_e - \chi_c) = \sqrt{\left(\frac{se}{\sqrt{N_1}}\right)^2 + \left(\frac{sc}{\sqrt{N_2}}\right)^2}$$

$$SE(\chi_e - \chi_c) = \sqrt{\left(\frac{6,34}{\sqrt{20}}\right)^2 + \left(\frac{8,34}{\sqrt{20}}\right)^2}$$

$$SE(\chi_e - \chi_c) = \sqrt{\left(\frac{6,34}{4,472136}\right)^2 + \left(\frac{8,34}{4,472136}\right)^2}$$

$$SE(\chi_e - \chi_c) = \sqrt{(1,417667)^2 + (1,864881)^2}$$

$$SE(\chi_e - \chi_c) = \sqrt{2,00978 + 3,47778}$$

$$SE(\chi_e - \chi_c) = \sqrt{5,48756}$$

$$SE(\chi_e - \chi_c) = 2,342554$$

$$SE(\chi_e - \chi_c) = 2,34$$

Finding out the T-Test:

$$t_{test} = \frac{\bar{X}_e - \bar{X}_c}{SE(\chi_e - \chi_c)}$$

$$t_{test} = \frac{86,75 - 72}{2,34}$$

$$t_{test} = \frac{14,75}{2,34}$$

$$t_{test} = 6,303419$$

$$t_{test} = 6,30$$

c. Finding out the degree of freedom (df):

$$df : (N_e - 1) + (N_c - 1)$$

$$: (20 - 1) + (20 - 1)$$

: 19+ 19

: 38

T-table at 5% of level significance is 1,9

Based on the formula of hypothesis which was designed before, null hypothesis is rejected if the t-test higher than t-table. Referring to this, so the hypothesis could be constructed as follows:

t-test > t-table of 5%

6,30 > 1,9

As the score of t-test 6,30 was higher than t-table 1,9 at the level of significance 5% for two tailed test so null hypothesis is rejected and alternatif hypothesis is accepted.

Research Finding

According on data evaluation, ttest became better that t-table, so it may be concluded that alternative hypothesis is accepted. After studying data, findings're received as follows: there's an enormous impact but not too significant of Herringbone coaching method on reading comprehension cappotential of grade X learners of SMK Kesehatan Tridarma Pematangsiantar of narrative textual content. Below are results on this thesis:

1. Na and Nb = 20.

There are 20 pupils on each class, they're experimental and control. Below are outcomes of calculation on each group:

a. Pretest on Experimental Group

Lowest pretest score in experimental is 60. There are six learners attained 60, six learners attained 65, six learners attained 70, and two learners attained 80.

b. Posttest on Experimental Group

Lowest score is 80. There are seven learners attained 80, four learners attained 85, five learners attained 90, three learners attained 95, and one learner attained 100.

c. Pre-test on Control Group

Lowest score is 60. There are four learners attained 60, five learners attained 65, seven learners attained 70, three learners attained 75, and one learner attained 80.

d. Post-test on Control Group

Lowest score is 60. There's one learner attained 60, seven learners attained 65, four learners attained 70, three learners attained 75, two learners attained 80, two learners attained 85, and one learner attained 90.

2. Mean score of pretest and posttest on experimental group were 66,5 with 86,75.

3. Mean score of pretest and posttest on control group were 68 with 72.

4. Enhancement for pupils' reading comprehension after treatment on experimental was 20,25, meanwhile in control group was 4.

5. Distinction/enhancement as whole pupils attained in posttest from experimental to control was 295/14,75 point in everage.

6. Total sum squares of respondents at time on administering posttest on experimental was 763,75, with result of standard deviation of post test on experimental group was 6,34.

7. Total sum squares of respondents at time on administering posttest on control was 1320, with result of standard deviation of post test on control group was 8,34.

8. Standard error of mean's distinction was 2,34.

9. T-test was 6,30.

10. Degree of freedom(df) was 38.

11. T-tabel at 5% of level significance was 1,9 for two tailed test.

Based on the results of the calculation above, Null hypothesis is rejected and alternative hypothesis is accepted.

DISCUSSION

After engaging in research in SMK Kesehatan Tridarma Pematangsiantar, it's miles discovered that there's an effect in pupils' reading comprehension cappotential among them who've been taught the use of Herringbone and those who've been taught not with Herringbone coaching method. The locating of this shows that those taught by Herringbone have higher success on their reading comprehension cappotential mainly in narrative textual content than folks taught not with Herringbone. This is line with Deegan (2006) that stated herringbone coaching method allows learners discover ways to classify and prepare records which refers to assisting information and foremost concept of a paragraph and this method additionally very beneficial in comprehending reading text. This is proved via way of means of evaluating their tests on reading comprehension cappotential after treatment. Mean of posttest on experimental is better than control class.

The higher success won via way of means of learners via gaining knowledge of procedure in reading, higher comprehension they've got upon the texts. By having suitable reading comprehension cappotential, they can have functionality to companion with texts and its components. As Graham and Hebert (2010) mentioned reading comprehension is procedure in which the readers building that means from the phrase and capable of getting concept and further records from textual content according on their methods of thinking. In making use of Herringbone coaching method, there've been numerous issues and situations that confronted via way of means of researcher, maximum usually issues have been learners were often noisy after they labored in group. In addition, to decrease the hassle above, instructor need to govern, take a look at and watch over learners greater, which will keep away from the noise withinside classroom.

This is line with numerous related research has carried out firstly by Ratri Handayani (2015) has said that the implementation of Herringbone on coaching reading comprehension is beneficial to decorate freshman' creatifity. However, it became additionally discovered they can get noisy, and the implementation desires lots greater time to succeed. The final is by Kurniawan A.,Y &Indrawati, I (2016) has additionally said Herringbone Teaching Techniqueindicates students capability and creatifity. Last, it may be blanketed that Herringbone is suitable to be carried out in coaching and gaining knowledge of procedure of reading comprehension. It's powerful to enhance pupils reading comprehension cappotential as it allows them to assemble, and obtain information, also construct comprehension on texts in addition to its components.

CONCLUSION

Researcher makes conclusion according on research' results. Depends on problem formulation on 1st chapter, hereafter discussion on 4th chapter, researcher drew subsequent conclusions. Average score (mean) on experimental class for pre-test shows a good result. It is 66,5. While for post-test, the average scores of this class changes to very good result. It is 86,75. So that, the average scores are improved 20,25 points. From that improvement, we recognise that learners' reading comprehension cappotential of experimental is extended after treatment. Then, average score/mean on control class for pretest is 68. This score is higher than pretest of experimental. While average scores of posttest is

72. So that, the average scores are improved only 4 points. From that improvement, we know that learners' reading comprehension cappotential of control is extended a piece after treatment. Average score on posttest on experimental is higher than posttest on control class. It's 86,75 in experimental, and it's 72 in control class. Therefore, distinction or development as entire learners attained from tests is 295 or 14,75 in mean. It shows that Ha is accepted. Withinside the end result of this research, there's enormous effect in the use of herringbone at reading comperension cappotential at grade 10th stuedent's of SMK Kesehatan Tridarma Pematangsiantar.

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