

THE EFFECT OF INSTRUCTIONAL MODELS AND LEARNING STYLES TOWARDS WRITING SKILL

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ABSTRACT

The objective of this experimental study is to find out the effect of instructional models and learning styles toward learners' English writing skill. The research was conducted at the English Department, the Academy of Foreign Language BSI Jakarta Indonesia. The results of this research indicated that: (1) there is a significant different improvement of English writing skill between group of learners who were taught by using the STAD Cooperative Learning model and those who were taught by using The Lecture Model, (2) English writing skill of the visual learners taught by using STAD Cooperative Learning model is better than those taught by using The Lecture Model, (3) English writing skill of the auditory learners taught by using The Lecture Model is better than those taught by using STAD Cooperative learning model, and (4) there is an interaction effect between the instructional model and learning style towards English writing skill achievement.

Keywords: *STAD Cooperative Learning model; The Lecture Model; Learning Style.*

Of all the four basic skills in language (speaking, listening, reading, and writing), writing has been viewed as the most sophisticated skill to master. Researchers have identified this tendency as a critical issue to learners and users of any language. Kroll states his concern in favor of this opinion that "*Writing is frequently a difficult skill for any language user, which is to say that writing presents a fairly challenging task for both native and nonnative speakers.*" (1990: 140) In language learning and teaching context, Murphy (2005: 58) then adds that to make writing easier, a group cooperation is needed. Group members can help each other giving input to express ideas, give suggestions, criticism and evaluation on their peers' writing.

In teaching writing skill, a teacher should take into consideration not only the instructional model, but also learners' individual and emotional differences. Recognising these traits will help teachers anticipate factors that influence the learners' success in developing their writing skill. When writing a composition, a writer is influenced by two factors, emotional and logical factors. Emotional factors include enthusiasm, passion, imagination, and spontaneity. Whereas the logical factors include outline, grammar, planning, punctuation, etc. (DePorter, 1999: 179). Unfortunately in reality, most teaching today disregards learners' individual differences, where teachers view learners as individuals who share average ability with more or less similar habits and knowledge. Teachers tend to prefer having more control while teaching by putting much on themselves as the main source of information and knowledge. It shows that the most common approach used in learning prose is the The Lecture Model.

The Lecture Model can be improved with a number of ways, such as using variety of teaching and learning strategies and models where differences of learners' ability can be accommodated and thus will arouse their motivation to learn enthusiastically.

One of the developable instructional models supporting the idea is the STAD (Student Teams-Achievement Divisions) model. It is a type of Cooperative Learning method for mixed ability-groupings involving team recognition and group responsibility for individual learning. This method is most appropriate for teaching well-defined objectives with single right answers, such as language usage and mechanics, but it can also be easily be adapted for use with less well defined objectives by incorporating more open-ended assessments, such as essays or performance (Slavin, 2006: 256). STAD learning methods emphasises activities and interactions among students to help and motivate one another in mastering the lesson in order to achieve maximum performance. (Slavin, 2005: 143-146).

Another way to improve the The Lecture Model is by paying attention to learners' characteristic and emotional differences. These traits are seen from their learning styles, because each individual receives and absorbs learning materials differently. A learner's capability in receiving and absorbing learning materials greatly influenced by his or her learning style.

According to DePorter (1999: 165) there are three types of learning style; visual, auditory, and kinesthetic; but each person usually only has one dominant learning style. The variety of learning style that the learners have is a factor which determines them in choosing and using learning strategies. In addition, recognising learners' learning style also helps teachers in designing appropriate instructional model so they can deliver their teaching effectively.

Referring to the viewpoint above, an experimental study is therefore needed to prove the existence of mutual influence between instructional model and learning style. This study is carried out to seek and demonstrate the effects of instructional models (the STAD Cooperative Learning model and The Lecture Model), and learning styles (the visual and auditory) towards learners' English writing skill at the English Department Academy of Foreign Language BSI Jakarta Indonesia.

a. Writing Skill

Writing is an attempt to express thoughts, ideas, and feelings serves as indirect means of communication and is expected to be understood by readers in different time and place. As McCloskey (1999: 79) puts it, writing is a process. And the process in the classroom writing activity is done by following a number of steps, such as **prewriting, drafting, sharing or conferring, revising, and publishing.** In learning process, a writing activity can be made easier by putting learners into small groups. Every member of the group can help each other to develop ideas and creativity in improving students' writing skill.

b. STAD Cooperative Learning Model

Slavin (2005: 8) states that cooperative learning is an instructional model in which learners learn and work collaboratively in small teams, and each heterogenous team consists of four to six members who are mixed in performance level, gender, and ethnicity.

Three central concepts characterise cooperative learning, namely group recognition award, individual accountability, and equal opportunities for success. Although learners work in a team, tasks responsibility is held by each member. Members on the team always motivate one another to do the best for the interest of their team success. Implementing cooperative learning model allows learners to

achieve success in learning, and also to practice their cognitive and social skills, such as expressing opinions, accepting suggestions and input from others, learning to cooperate, showing solidarity, and minimizing potential disruptive behaviors in class.

STAD (Student Teams-Achievement Divisions) is one of cooperative learning methods which emphasises activities and interactions among students to help and motivate one another in mastering the lesson in order to achieve maximum performance (Slavin, 2005: 143-146). The main idea of STAD is to motivate learners to support and help each other in mastering lesson or ability taught by the teacher. If learners want their team to achieve group recognition award, they must help their team members to master the lesson. They must support their team members to do their best, to show that learning is important, valuable, and exciting. Learners start working together in their team after the teacher directly presents the materials. They may work in pairs within their team, compare each other's answers, discuss possible disagreements, and help one another to understand the materials.

According to Slavin (2005: 143) there are five phases or cycles of instructional activities to the STAD model: 1) teach or class presentation, 2) team study, 3) test, 4) individual progress score, and 5) team recognition. The class presentation is a teacher-directed presentation of the material, such as concepts, skills, and processes. It is a direct teaching or material discussions like most teachers do which can be combined with audiovisual presentation. What makes class presentation different from any regular teaching is that it must be focus only on the unit which uses STAD model. This way the learners realise that they are to fully pay attention during the class presentation, because it will help them during test phase of which result will determine the team's score.

On one hand the benefits of STAD model are: 1) learners are much less dependant of the teacher and they can improve their confidence to think independently, research for information from various sources, and learn from other students; 2) learners can develop ability in expressing ideas and compare them to other's; and 3) learners learn to respect others, be more responsible in their learning, improve their academic and social achievements. On the other hand, the weaknesses of STAD are: 1) it requires considerable amount of time to build learners' comprehension on the concept of cooperative learning; 2) although assessment given is based on team work result, yet teachers are aware that it is the individual learning achievement that is most expected.

c. The Lecture Model

Lecture as a model of teaching is frequently criticized, but this is a fact that it is the oldest teaching method. According to James Michael Lee dalam Newell (2006:116) "The lecture is a pedagogical method whereby a teacher formally delivers a carefully planned expository address on some particular topic or problem". Good and Merkel (1959) suggest lecture as a model of teaching by which the instructor gives an oral presentation of facts or principles to learners and the class usually being responsible for note taking, usually implies little or no class participation by such means as questioning or discussion during the class period.

In The Lecture Model, learners are not yet given the opportunity to optimally develop their cognitive, affective, and conative potentials. It is rare for learners to be involved in activities in which they can discuss, present, reasoned, communicate,

solve problems, and collaborate. It is all because the nature of The Lecture Method is teacher-centered. Teachers hold an important role and domination in the learning process where they deliver the lesson materials directly to learners.

In summary, The Lecture Model is a teacher-centered learning model since the teacher is the main information source for lesson materials. Nonetheless, with its one-directional verbal presentation nature, this model is considered suitable for learners with auditory learning style.

d. Differences between STAD Cooperative Learning Model and The Lecture Model

Referring to the theoretical and conceptual explanations above, the differences between the two models are:

STAD Cooperative Learning Model	The Lecture Model
1. Students-centered learning	1. Teacher-centered learning
2. Positive interdependency	2. Negative interdependency
3. Heterogenous	3. Homogenous
4. Group and individual accountability	4. Individual accountability
5. Learning cooperative skills	5. Assumption on social skills
6. Emphasising on cooperative tasks and relation	6. Emphasising on tasks
7. Learners supported	7. Teacher supported
8. Group evaluation	8. Individual evaluation

e. Learning Styles

DePorter (1999: 85) introduces three types of learning styles: visual, auditory, and kinesthetic. This study focuses only on two learning styles: visual and auditory.

1) Visual Learning Style

Visual learning style is a learning style of which learning process focuses on visual acuity. Visual learners find it easier to comprehend materials when they can see what is being delivered or discussed either by teachers or through books. The characteristics of visual learners are further described by DePorter as 1) well-organised, pay attention to details, keep up appearances; 2) remember with images; 3) know what to say but having difficulties in choosing words; 4) have difficulties in remembering verbal instructions without script/images and often ask others for reciting them.

2) Auditory Learning Style

Based on DePorter (1999:35), auditory learning style is a learning style which relies on hearing ability in learning process. Auditory learners pay much better attention to matters they can hear. In general, auditory learners like to listen to lectures, news on the radio or from a tape recorder. This type of learners like to learn by listening and interacting with other people. The learners tend to be able to comprehend tasks when the instructions are given orally. Reading activities tend to be boring for auditory learners. Diagrams and written explanation without spoken description often confusing and even can cause them frustration. The characteristics of auditory learners are 1) easily distracted; 2) speak in rythmical patterns; 3) learning by listening, moving their lips or make voices when reading; 4) easily disturbed by noises.

1. Do the English writing skill of learners teach by using STAD Cooperative Learning model is better than those using the The Lecture Model?
2. Do the English writing skill of visual learners teach by using the STAD Cooperative Learning model is better than those using the The Lecture Model?
3. Do the English writing skill of auditory learners teach by using the The Lecture Model is better than those using the STAD Cooperative Learning model?

Is there an interaction effect between the instructional models (STAD and The Lecture Method) and learning styles (visual and auditory) towards English writing skill achievement?

METHOD

This study uses experimental research method with 2x2 factorial design. The target population is all students at English study program at Academy of Foreign Language BSI Jakarta Indonesia with total number of 300 students. The sampling method used is the multi-stage random sampling.

The data collection for English writing skill in this study is done by using essay test. The test is conducted after completing the learning process using STAD Cooperative Learning model and The Lecture Model. While Learning style test is done by using the Bobby De Porter model which classify students into Visual and Auditory Learning style.

The data analysis technique for this research is using two-way Anova (Analysis of Varians). If there is an interaction effect found in the analysis, then a Tuckey test will be taken. Normality and homogeneity tests are conducted prior to analysing the result data from testing the hypotheses. The normality test is using the Liliefors, while the homogeneity test is using the Bartlett test.

RESULTS

Data Analysis

1. Data of English Writing Skill of Learners Taughtby Using STAD Cooperative Learning Model

Based on the overall collected data, score result of English writing skill of learners who were taught using STAD model has a range of 53-88, where the lowest score is 53 and the highest score is 88. The average score is 68.04, modus is 70, median is 68.5, and deviation standard is 9.5. The frequency distribution of English writing skill of the learners is divided into 7 interval classes as follow:

Table 1. Frequency distribution of English writing skill scores using STAD Cooperative Learning model

Class	Interval Class	Absolute Frequency	Relative Frequency (%)
1.	53 – 57	5	17,85
2.	58 – 62	4	14,28
3.	63 – 67	4	14,28
4.	68 – 72	6	21,43
5.	73 – 77	4	14,28
6.	78 – 82	2	7,14

7.	83 – 88	3	10.71
Total		28	100%

The following is the frequency distribution of English writing skill scores using the STAD model.

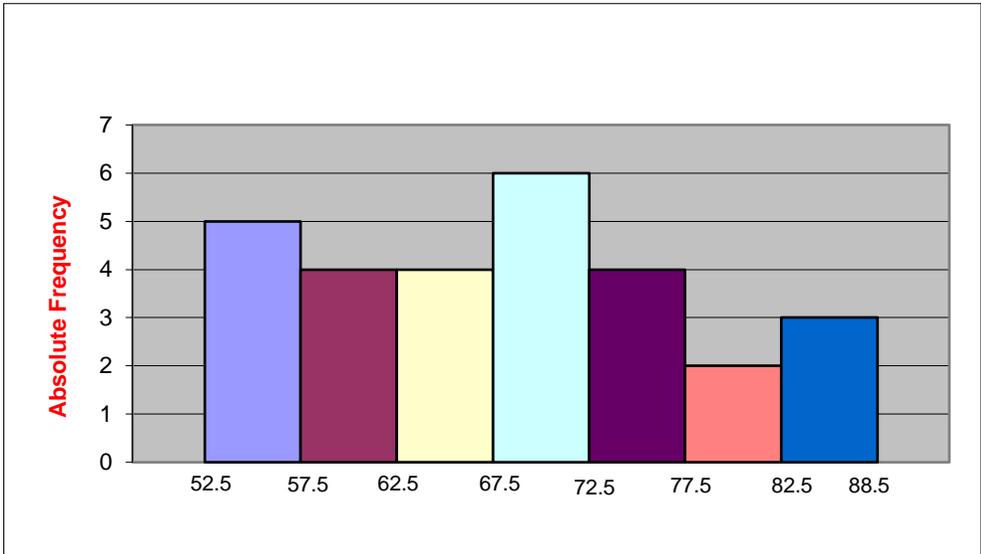


Figure 1. Histogram of English writing skill scores with STAD Cooperative Learning model

2. Data of English Writing Skill of Learners Taught by Using The Lecture Model

Based on the overall collected data, score result of English writing skill of learners who were taught using The Lecture Model has a range of 45-85, where the lowest score is 45 and the highest score is 85. The average score is 68.6, modus is 75, median is 71.5, and deviation standard is 11.94. The frequency distribution of English writing skill of the learners is divided into 7 interval classes as follow:

Table 2. Frequency distribution of English writing skill scores using The Lecture Model

Class	Interval Class	Absolute Frequency	Relative Frequency(%)
1.	45 – 50	3	10,71
2.	51 – 56	3	10.71
3.	57 – 62	3	10,71
4.	63 – 68	3	10,71
5.	69 – 74	3	10,71
6.	75 – 80	10	35.71
7.	81 – 86	3	10,71
Total		28	100%

The following is the frequency distribution of English writing skill scores using the The Lecture Model.

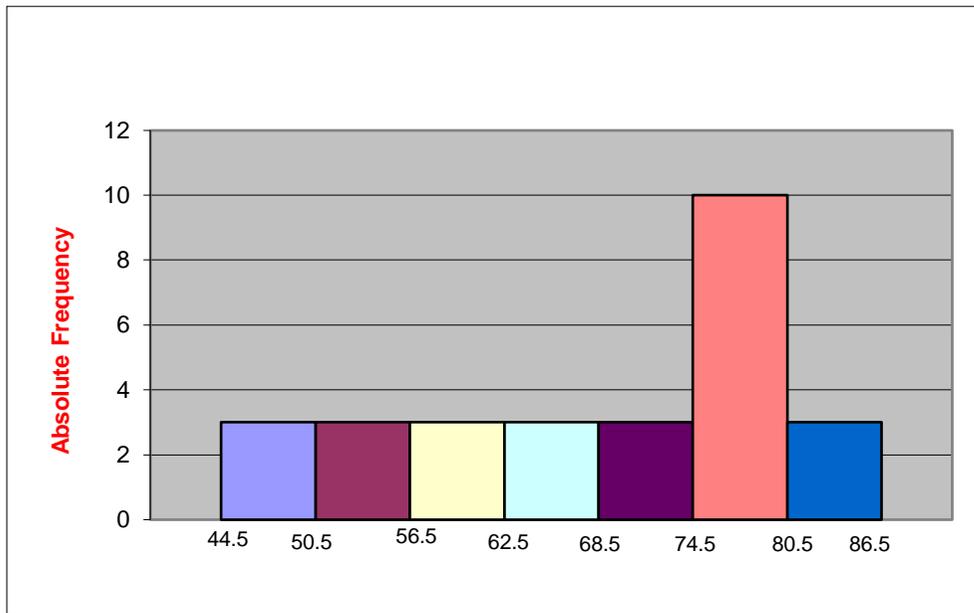


Figure 2. Histogram of English writing skill scores with The Lecture Model

3. Data of English Writing Skill of Learners from Visual Learning Style Group

Based on the overall collected data, score result of English writing skill of learners from Visual Learning Style group has a range of 45-88, where the lowest score is 45 and the highest score is 88. The average score is 62.5, modus is 55, median is 60, and deviation standard is 10.53. The frequency distribution of English writing skill of the learners is divided into 7 interval classes as follow:

Table 3. Frequency distribution of English writing skill scores of Visual Learning Style group

Class	Interval Class	Absolute Frequency	Relative Frequency (%)
1.	45 – 51	4	14,29
2.	52 – 58	9	32,14
3.	59 – 65	7	25
4.	66 – 72	3	10,71
5.	73 – 79	2	7,14
6.	80 – 86	2	7,14
7.	87 - 93	1	3,57
Total		28	100%

The following is the frequency distribution of English writing skill scores of Visual Learning Style group.

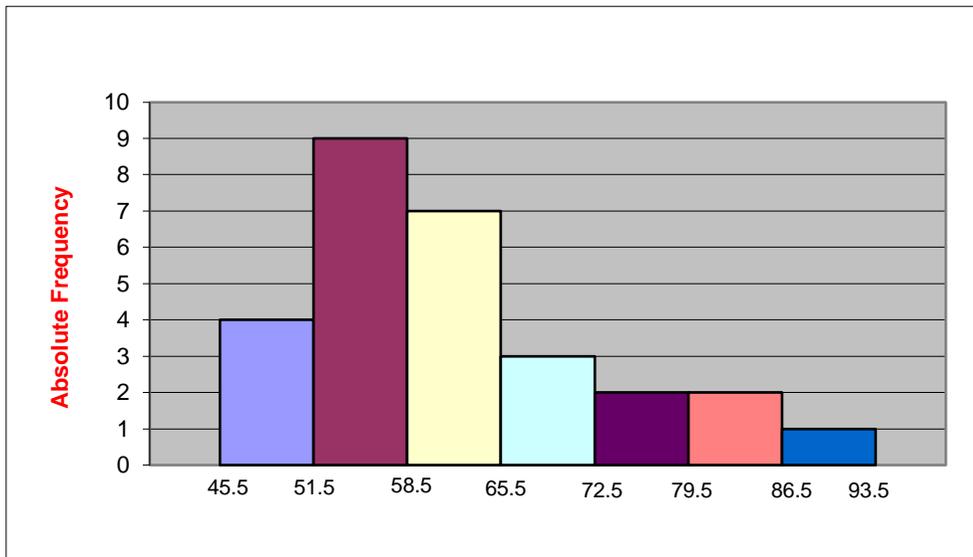


Figure 3. Histogram of English writing skill scores of Visual Learning Style group

4. Data of English Writing Skill of Learners from Auditory Learning Style Group

Based on the overall collected data, score result of English writing skill of learners from Auditory Learning Style group has a range of 55-85, where the lowest score is 55 and the highest score is 85. The average score is 73.03, modus is 70, median is 74.5, and deviation standard is 8.48. The frequency distribution of English writing skill of the learners is divided into 7 interval classes as follow:

Table 4. Frequency distribution of English writing skill scores of Auditory Learning Style group

Class	Interval Class	Absolute Frequency	Relative Frequency (%)
1.	55 – 59	2	7,14
2.	60 – 64	3	10,71
3.	65 – 69	2	7,14
4.	70 – 74	7	25
5.	75 – 79	6	21,42
6.	80 – 84	5	17,86
7.	85 – 89	3	10,71
Total		28	100%

The following is the frequency distribution of English writing skill scores of Auditory Learning Style group.

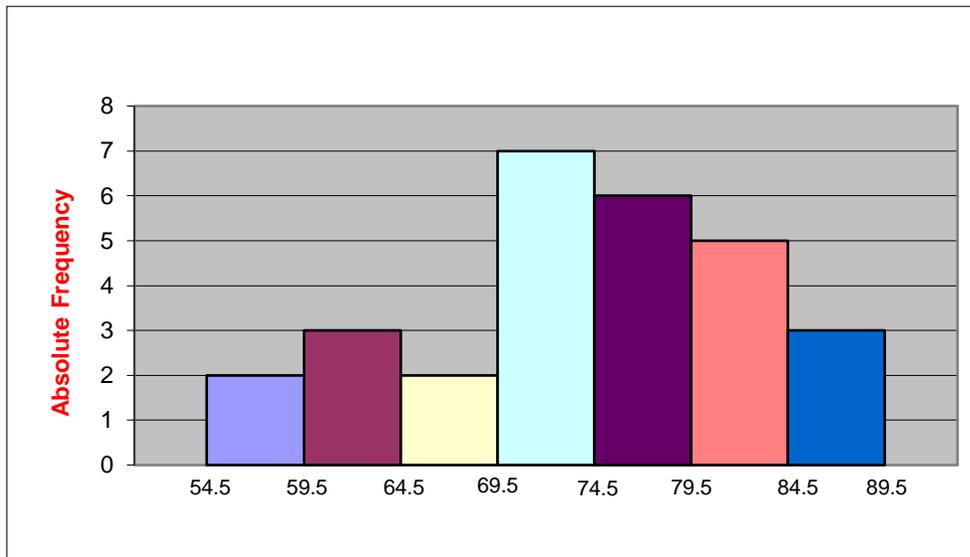


Figure 4. Histogram of English writing skill scores of Auditory Learning Style group

5. English Writing Skill of Learners from Visual Learning Style Group who were Taught by Using STAD Cooperative Learning Model

Based on the overall collected data, score result of English writing skill of learners from Visual Learning Style group who were taught using STAD Cooperative Learning model has a range of 53-88, where the lowest score is 53 and the highest score is 88. The average score is 67, modus is 58, median is 60, and deviation standard is 10.52. The frequency distribution of English writing skill of the learners is divided into 7 interval classes as follow:

Table 5. Frequency distribution of English writing skill scores of Visual Learning Style group which was taught by using STAD Cooperative Learning model

Class	Interval Class	Absolute Frequency	Relative Frequency (%)
1.	53 – 57	3	21,43
2.	58 – 62	3	21,43
3.	63 – 67	1	7,14
4.	68 – 72	3	21,43
5.	73 – 77	1	7,14
6.	78 – 82	2	14,29
7	83 - 88	1	7,14
Total		14	100%

The following is the frequency distribution of English writing skill scores of Visual Learning Style group which was taught by using STAD Cooperative Learning model.

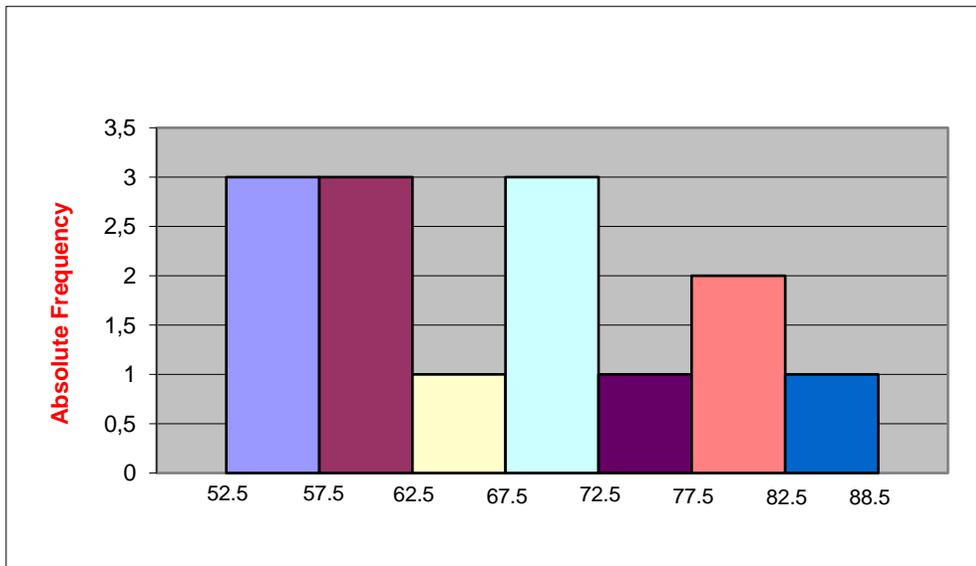


Figure 5. Histogram of English writing skill scores of Visual Learning Style group which was taught by using STAD Cooperative Learning model

6. English Writing Skill of Learners from Auditory Learning Style Group who were Taught by Using STAD Cooperative Learning model

Based on the overall collected data, score result of English writing skill of learners from Auditory Learning Style group who were taught by using STAD Cooperative Learning model has a range of 55-83, where the lowest score is 55 and the highest score is 83. The average score is 69.07, modus is 70, median is 70, and deviation standard is 8.66. The frequency distribution of English writing skill of the learners is divided into 7 interval classes as follow:

Table 6. Frequency distribution of English writing skill scores of Auditory Learning Style group which was taught by using STAD Cooperative Learning model

Class	Interval Class	Absolute Frequency	Relative Frequency (%)
1.	55 – 59	2	14,29
2.	60 – 64	2	14,29
3.	65 – 69	2	14,29
4.	70 – 74	5	35,71
5.	75 – 79	1	7,14
6.	80 – 84	2	14,29
Total		14	100%

The following is the frequency distribution of English writing skill scores of Auditory Learning Style group which was taught by using STAD Cooperative Learning model.

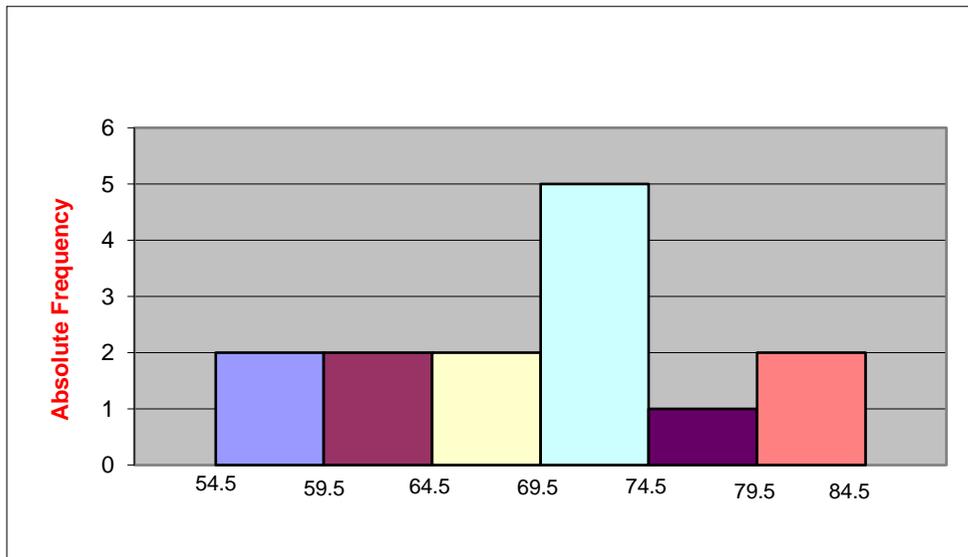


Figure 6. Histogram of English writing skill scores of Auditory Learning Style group which was taught by using STAD Cooperative Learning model

7. English Writing Skill of Learners from Visual Learning Style Group who were Taught by Using The Lecture Model

Based on the overall collected data, score result of English writing skill of learners from Visual Learning Style group who were taught by using The Lecture Model has a range of 45-80, where the lowest score is 45 and the highest score is 80. The average score is 60.29, modus is 50, median is 59, and deviation standard is 10.25. The frequency distribution of English writing skill of the learners is divided into 7 interval classes as follow:

Table 7. Frequency distribution of English writing skill scores of Visual Learning Style group which was taught by using The Lecture Model

Class	Interval Class	Absolute Frequency	Relative Frequency (%)
1.	45 – 49	1	7,14
2.	50 – 54	3	21,43
3.	55 – 59	3	21,43
4.	60 – 64	2	14,29
5.	65 – 69	2	14,29
6.	70 – 74	1	7,14
7.	75 - 80	2	14,29
Total		14	100%

The following is the frequency distribution of English writing skill scores of Visual Learning Style group which was taught by using The Lecture Model.

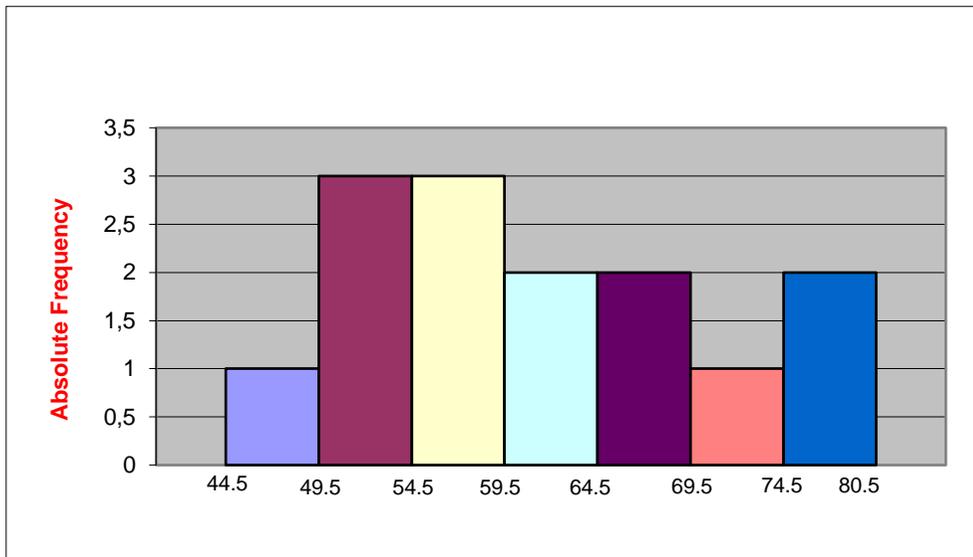


Figure 7. Histogram of English writing skill scores of Visual Learning Style group which was taught by using The Lecture Model

8. English Writing Skill of Learners from Auditory Learning Style Group who were Taught by Using The Lecture Model

Based on the overall collected data, score result of English writing skill of learners from Auditory Learning Style group who were taught by using The Lecture Model has a range of 62-85, where the lowest score is 62 and the highest score is 85. The average score is 77, modus is 75, median is 76.5, and deviation standard is 6.36. The frequency distribution of English writing skill of the learners is divided into 7 interval classes as follow:

Table 8. Frequency distribution of English writing skill scores of Auditory Learning Style group which was taught by using The Lecture Model

Class	Interval Class	Absolute Frequency	Relative Frequency (%)
1.	62 – 66	1	7,14
2.	67 – 71	1	7,14
3.	72 – 76	5	35,71
4.	77 – 82	4	28,57
5.	83 – 87	3	21,43
Total		14	100%

The following is the frequency distribution of English writing skill scores of Auditory Learning Style group which was taught by using The Lecture Model.

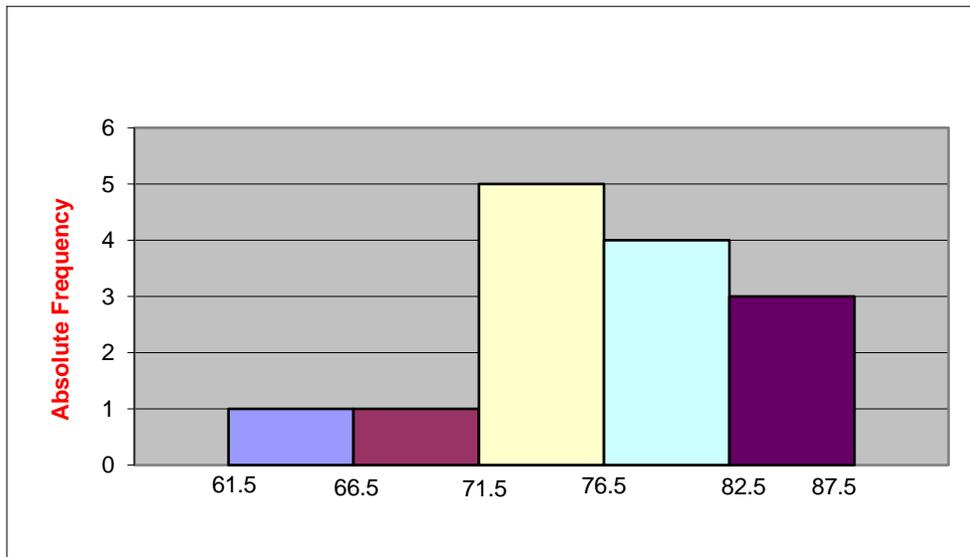


Figure 8. Histogram of English writing skill scores of Auditory Learning Style group which was taught by using The Lecture Model

DISCUSSIONS

Based on the two-way Analysis of Variant, conclusions of all research hypotheses can be drawn as the following:

Research Question 1

The result of the two-way Anova table shows the F-test for effect of instructional model is $21.85 >$ critical value $F = 5.06$ with the level of the test is $\alpha = 0.01$. It therefore proves that there is a significant difference on the English writing skill learning achievement between learners who were taught using STAD Cooperative Learning model and that using The Lecture Model.

Research Question 2

The average score for English writing skill of learners with visual learning style and taught by using STAD Cooperative Learning model is 67. Whereas the average score of the visual learners who were taught by using The Lecture Model is 60.29. Therefore, the English writing skill of learners from visual learning style group who were taught by using STAD Cooperative Learning model is higher than those who were taught by using The Lecture Model. The overall result shows that the STAD Cooperative Learning model is more suitable for learners with visual learning style.

Research Question 3

The average score for English writing skill of learners with auditory learning style and taught by using STAD Cooperative Learning model is 69.07. Whereas the average score of the auditory learners who were taught by using The Lecture Model is 77. It means that there is a difference on the English writing skill learning achievement between auditory learners who were taught by using STAD Cooperative

Learning model and those by using The Lecture Model. Based on the average English writing skill achievement score, auditory learners who were taught by using The Lecture Model have better result than those who were taught by using STAD Cooperative Learning model. We can conclude that the The Lecture Model is more suitable for learners with auditory learning style, since they will be able to receive and absorb lessons better while listening to lectures rather than having discussions.

Research Question 4

The result of the two-way Anova table shows the F-test for interaction effect is $13.28 > \text{critical value } Q = 5.06$ with the level of the test is $\alpha = 0.01$. It means there is an interaction effect between instructional models and learning styles towards English writing skill of learners participating in this study.

Since there is an interaction effect, the Tuckey test is then conducted. The statistical calculation result shows that: Q-test = 4.98 and critical value $Q = 3.05$ with the level of test $\alpha = 0.05$. Thus the null hypothesis is rejected. And it can be concluded that there is a significant interaction effect between instructional models and learning styles towards learners' English writing skill. In other words, interactions happen between the English writing skill of visual learners who were taught by using STAD Cooperative Learning model with that of auditory learners who were taught by using The Lecture Model.

It turns learning model is one very important factor in improving writing skills in English. Determination of appropriate learning models can affect the English writing skills of students, especially students of the second semester English courses Academy Of Foreign Language BSI Jakarta Indonesia. The successful achievement of learning objectives depend on the accuracy of lecturers in determining learning model. To be able to overcome the differences of students' learning styles, lecturers must use STAD Cooperative learning model and directive model interchangeably.

CONCLUSION

Based on data analysis and statistical tests, this study proves that there is a difference of English writing skill achievement between learners who were taught by using the STAD Cooperative Learning model and The Lecture Model. The STAD model helps visual learners achieve better than The Lecture Model. On the contrary, the The Lecture Method helps auditory learners achieve better. Therefore, the implications of this study findings are: 1) An instructional model which is suitable with learners' learning style and lesson materials helps improve their English writing skill. Therefore, teachers should be able to identify learners' learning style before implementing an appropriate instructional model to teach English writing skill; 2) STAD Cooperative Learning model is better be implemented to group of learners who have visual learning style, while The Lecture Model is better be implemented to learners who have auditory learning style; 3) Teachers who have not had a complete understanding of STAD Cooperative Learning model should improve their knowledge through trainings on instructional models, and reading relevant literatures in order to achieve expected instructional goals in their teaching; 4) In order to improve learners' learning achievement, teachers are encouraged to use various instructional model alternately. This way learners are motivated and excited with the

lessons taught; 5) Researchers are encouraged to do similar research with bigger samples to seek deeper the contributions of instructional models and learning styles towards learners' English writing skill.

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