ANALYSIS OF USING SHARK TYPER DELUXE (STD) SOFTWARE TOWARDS INCREASING TYPE ABILITY STUDENTS OF IBM asmi

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Abstract

This study is a quantitative study that uses the Simple Sign Test to test the differences in Typing Speed and Typing Accuracy after IBM ASMI students went through the Keyboarding course using the Shark Typer Deluxe (STD) application in 2018 – 2019.

Based on the descriptive level of achievement of typing speed, students learn Keyboarding for 2 months using the Typer Shark Deluxe software, the average speed is 5.27 minutes to type 5 lines. There are 48 (52.17%) people who need 1 – 5 minutes to type 5 lines. Based on the descriptive level of achievement of students learning keyboarding for 4 months the average value of the speed is 3.25 minutes to type 5 lines. There are 71 (71.17%) people who need 1-3 minutes to type 5 lines.

Based on the descriptive level of achievement of typing accuracy, students learn Keyboarding for 2 months using the Typer Shark Deluxe software, the average accuracy value is 7.45 words that are wrong when typing for 5 minutes. There are 20 (21.74%) people whose accuracy level is 0 – 6 words during 5 minutes of typing. Based on the descriptive level of achievement of typing accuracy, students learn Keyboarding for 4 months using the Typer Shark Deluxe software, the average accuracy value is 1.71 words that are wrong when typing for 3 minutes. There are 82 (89.13%) people whose accuracy level is 0 – 3 words during 3 minutes of typing.

Keywords: *Keyboarsing, Typing Speed and Typing Accuracy*

1. INTRODUCTION

Since its establishment as the Indonesian Academy of Secretariat and Management (ASMI) in 1962 then it became the official College of Administration and Secretariat (Stads asmi) and now it has become an asmi Institute of Business and Multimedia, so that ASMI graduates are leading in producing reliable workers in the field of education. administration and secretarial. Administration and secretarial are jobs that require soft skills in the fields of typing, shorthand and archiving. Since its establishment as the Indonesian Academy of Secretariat and Management (ASMI) in 1962 then it became the official College of Administration and Secretariat (Stads asmi) and now it has become an asmi Institute of Business and Multimedia, so that ASMI graduates are leading in producing reliable workers in the field of education. administration and secretarial. Administration and secretarial are jobs that require soft skills in the fields of typing, shorthand and archiving.

The ability in the field of typing is an absolute thing that must be mastered by a secretary because most of the work they do is related to typing such as correspondence, meeting minutes, reports, activity schedules, agendas, all of which must be documented in written form.

The ability to type is not only related to the ability to make written reports but also relates to the speed and accuracy in producing a document so that it leads to the effectiveness of the work of a secretary. One of the learning methods used to hone the skills of ASMI students both in typing speed and typing accuracy is the blind system technique. It is believed that with this learning method, students are able to reach a typing speed of 3 lines per minute.

Along with the development of learning technology, new methods of learning have changed. Since changing to the official College of Secretariat Science (stads asmi) and now as FIAS, the method of learning typing has also changed. One of the triggers for this change is the availability of software that can be used to improve the typing ability of STADS students, namely the "Typer Shark Deluxe (TSD)" software. The advantage of this software is that the basis of learning is games so that students will not become bored in the learning process.

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Based on the description above, it is interesting to examine whether there is a significant effect of using TSD software on the typing ability of original IBM students. The problem formulation of this research is:

1. What is the description of the typing speed level of genuine IBM students after learning to type for 2 months and 3 months using the "Shark Typer Delux" software?
2. How is the description of the accuracy level of typing accuracy of IBM ASMI students after learning to type for 2 months and 4 months using the "Typer Delux" software?
3. Can the standard of typing speed and accuracy after 2 months and 4 months of attending Keyboarding lectures be achieved?
4. Is there a significant difference between typing speed after learning 2 months of typing and 4 months of typing?

2. LITERATURE REVIEW

2.1. Computer Typing

Computer typing is a typing activity carried out using a computer as a typing aid.

Anonymous (2008) said that "***Typing*** *is the process of inputting text into a device, such as a typewriter, computer, or a calculator, by pressing keys on a keyboard. It can be distinguished from other means of input, such as the use of pointing devices like the computer mouse, and text input via speech recognition*" **.**

Based on the blind system, the keyboard becomes a plain field (blind) without any characters or symbols. The basic of typing on the finger house consists of two main parts, namely the left which is the task of the left hand fingers and the right part which is the main task of the right hand fingers.

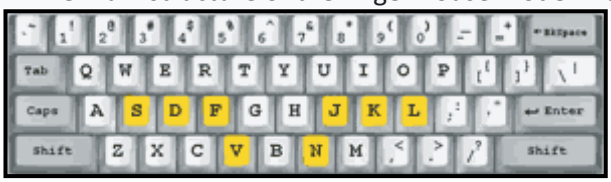
In the house system the fingers of the left hand correspond to the letters A, S, D, F and the fingers of the right hand correspond to the letters J, K, L, ;. The thumb functions to press the space bar (space bar). The main task will be more broadly fragmented in the next phase along with the progress of students in participating in the learning process (Anonymous, 2008). The structure of the finger house can be seen in Figure 2.1. below this:

Figure 2.1. The main structure of the finger house in the learning process computer typing

Source: Anonim, 2008

Another alternative to the finger house position according to Owen (2007) which was developed by Alexey Kazantsev from NASA is the finger house with SDFV and NJKL positions. According to Alexey, the modification of the finger house position is more natural, thereby reducing the level of fatigue and boredom, as shown in Figure 2.2. below this:

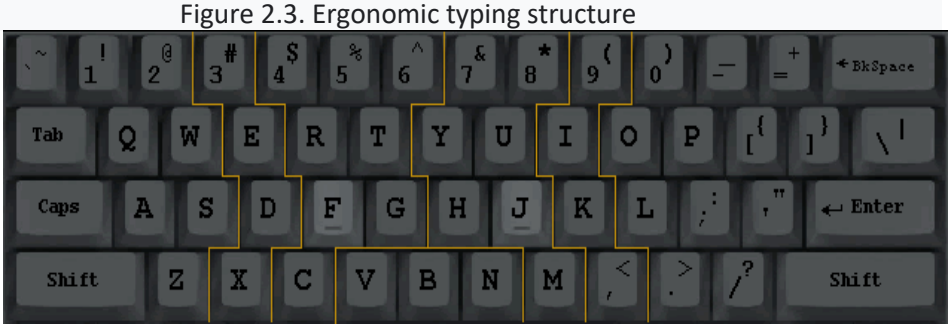
Figure 2.2. The main structure of the finger house model Alexey Kazantsev from NASA



Source : Williams (1998)

The third revolutionary model in the development of typing techniques is to use an ergonomic approach. The essence of this approach is to divide the keyboard into two fields, namely the left and right fields. This approach, according to Williams (1998), is able to put hands in a relaxed position, increasing typing ability by up to 20%

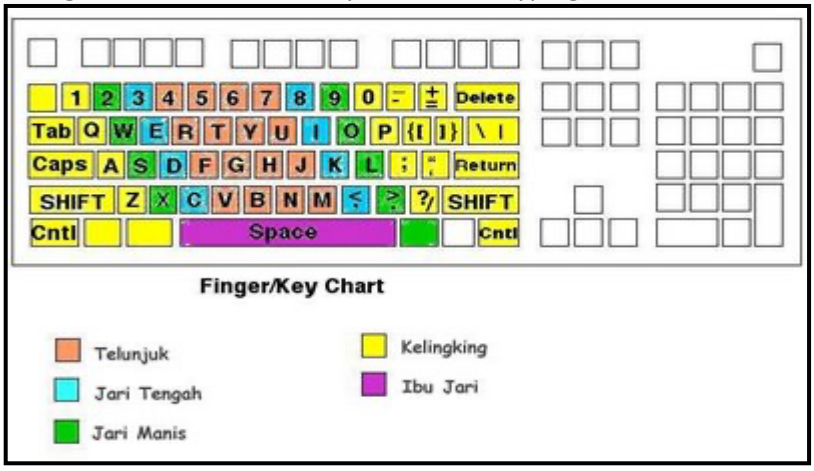
Figure 2.3. Ergonomic typing structure



Source: Williams (1998)

‘ In general, in the learning process of the blind system model, the position of the finger house and the function of each finger can be seen in the image below:

Figure 2.4. Overall blind system model typing structure



Source: Williams (1998)

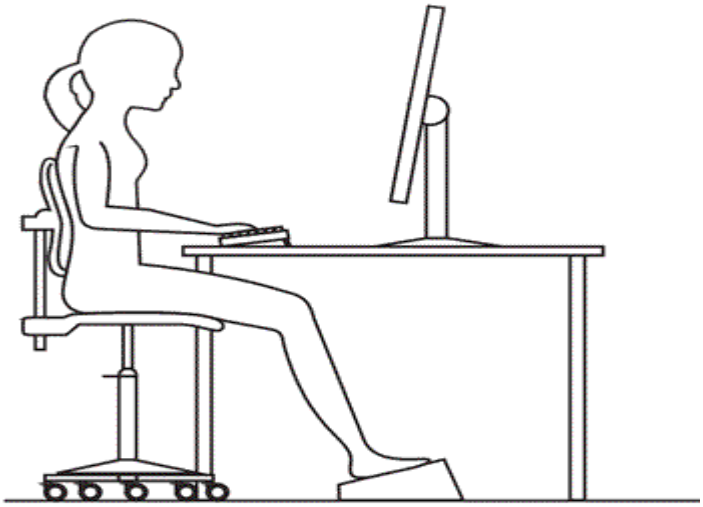
In the advanced phase, the fingers of the right hand will serve to press the letters Q, W, E, R, T, Y, Z, X, C, V, and B. While the fingers of the right hand will function to press U, I, O, P, N, M, comma and period. The Shift and Enter keys are additional tasks for the right fingers.

2.2 **Typing Speed**

Typing speed is a measure that shows the amount of text that can be typed in a certain time unit. Some are based on the number of characters (characters per minute, CPM) there are also those based on the number of words per minute (words per minute, WPM) and the last is the number of beats per minute (keystrokes per minute, KPM). Another unit used is the number of typing lines in minutes (Line per Minute, LPM). However, the use of LPM refers more to the speed of printing on the printer so that the less popular unit is used in assessing typing speed (Brown, 1988).

By default, the typing speed that must be achieved in 1 minute for professionals is 50-70 WPM, but there are also those that reach 80-95 WPM (Anonymous, 2008). But in The Guinness Book of World Records a person named Barbara Blackburn managed to reach speeds of 150 WPM. Based on units of beats per minute, the standard for a professional according to Beacon (2008) is 200 KPM. Based on the LPM unit, for a professional the standard is 3-5 LPM (Brown, 1988).

Figure 2.4. Recommended sitting position for typists



Source: Bailey, 1999

Another factor that affects typing speed is sitting position. Sitting position can streamline viewing of text, flexibility of finger movement and health problems. The arms are parallel to the body, the palms do not touch the keyboard. It is recommended by experts that the sitting position is upright, the foot position is 70o - 90o with the legs tilted 30o - 45o as shown in the picture below Bailey (1999).

2.3. Typing Accuracy

Typing accuracy is a measure that shows the appropriate number of characters and does not contain errors in the process of typing the script. Accuracy is closely related to the effectiveness of a secretary's work. Typing speed will mean nothing if it is not followed by good accuracy (Beacon, 2008).

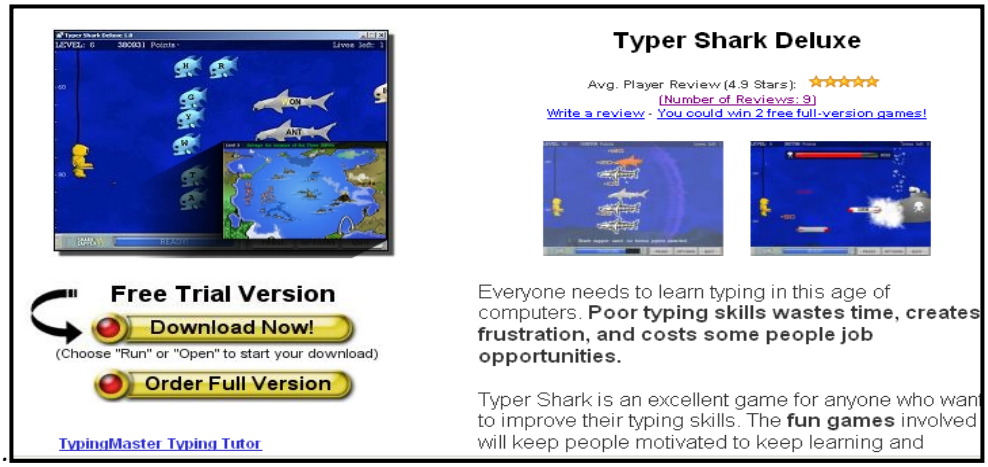
Accuracy requires high concentration and feeling sensitive to the movement of each finger in pressing the keyboard keys. This allows a typist (typewriter) to read a script or hear something while typing without having to look at the keyboard keys. Even a professional in the field of typing can quickly sense the error of any pressure on the keyboard (Lindsell and Robert, 2007).

2.4. Software "Typer Shark Delux"

There are many types of software available in the market today that are specifically designed to improve the typing skills of each student. Some are created for beginners, medium and advanced. But the essence of all the software is "learn and play" so as to reduce the level of boredom and fatigue of each student.

TSD software has three main parts, namely Typing Tutor, Abyss and Adventure. Typing Tutor is a package for early-level typing lessons from standard to moderate conditions. This package is also used to increase the user's WPM achievement. Abyss is a training package for medium level where users are given simulation games (games) that can increase the speed and accuracy of typing. Adventure package is a training package for advanced levels where simulation games are more difficult and contain various traps (Anonymous, 2008)

Figure 2.5. *Software Typer Shark Deluxe (TSD*



Source : Anonim, 2008

The use of TSP can accelerate typing speed and typing accuracy by up to 50%, but some users say it can reach 70%

3. RESEARCH METHODS

This research is a quantitative research. Research conducted to process data in the form of inference, so that it is possible to draw conclusions on a number of hypotheses at a certain level of confidence (Malhotra, 2004). The data used in this study is data from the speed and accuracy of typing in the Keyboarding course using TSD with.

3.1. Population and Research Sample

The population in this study is the asmi IBM students class 2018 - 2019 as many as 130 people. The sampling procedure used a random sample with an accuracy of 95% (error 5%). The method of drawing the number of samples taken as respondents using the Slovin approach (Sugiarto et al, 2001) obtained as many as 92 respondents

$$n = \frac{130}{1+(0.05)^2.130}$$

$$n = \frac{163}{1+(0.0025).130}$$

$$n = \frac{163}{1+0.4075} = \frac{130}{1.4075}$$

$$n = 92.36 \approx 92$$

3.3. Operational Variable

3.3.1. Variable

he variables used in this study were the variable Speed of Typing (X_1) and the variable of Typing Accuracy (X_2).

3.3.2. Variable Measurement

The variable size scale used in this study is the ratio scale. The data is continuum, meaning that there may be decimal values

3.4. Research Models and Hypotheses

The model of this study is a comparison of two data groups using the average of the two data groups. So that the comparison of the two groups of data applies to the speed and accuracy of typing data during the two months and 4 months of learning to type or keyboarding.

Figure 3.1. The relationship between the variables in this study

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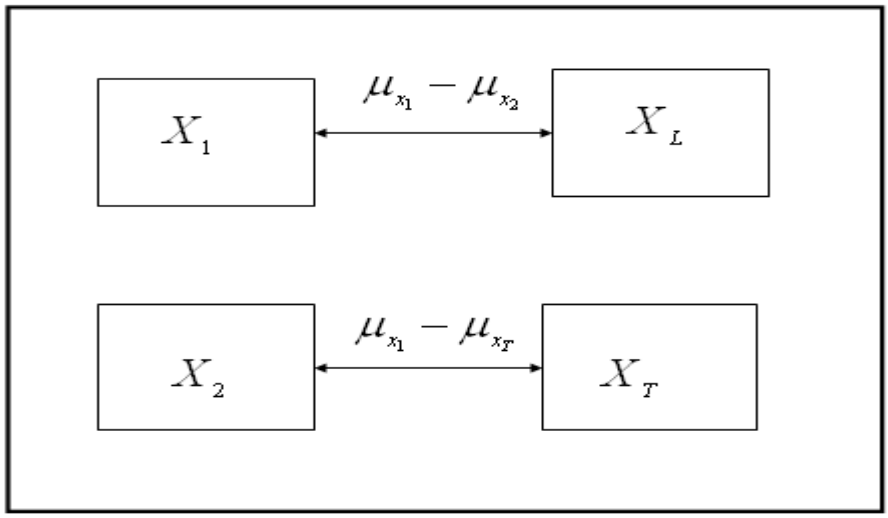

Source: Self-processed

The hypothesis of this research for Typing Speed is "It is suspected that there is a difference in students' typing speed after studying 2 months with 4 months of learning typing". Then the hypothesis for Typing Accuracy is "It is suspected that there is a difference in students' typing accuracy after studying for 2 months and learning 4 months of typing".

3.5. Data Analysis Method

The data analysis method uses a Simple Sign Test by using

$$Z = \frac{\overline{X} - \mu_x}{\sqrt{np(1-p)}}$$

$\mu_x = np$ where:

$\mu_x = Average\ \ Value$

$n = Amount\ of\ Transaktion$

$p = N\text{egative sign chance}$

$q = Posi\text{tive sign chance}$

4. RESULTS AND DISCUSSION

4.1. Description of Typing Speed

4.1.1. Four Months Learning Period

Based on the results of processing the highest value of typing speed in the 2 month period of learning to type is those who are able to type 5 lines of sentences in 3 minutes. While the lowest value is 8 minutes, which takes 8 minutes to type 5 lines of sentences. The average is 5.27 minutes with a deviation of 1.18 minutes. If the standard for typing speed in a 2 month study period is in 5 minutes students must be able to type 5 lines, then there are only 6 students who meet these standards or in the percentage there are only 6.52%.

Based on Table 4.1. below, the number that takes 1-5 minutes to type 5 lines is 52.17%. While those who need 6-9 minutes to type 5 lines are 47.83%. While those who need 10 -13 minutes to type 5 lines are 0.0%

Table 4.1. Statistics distribution of original IBM student typing speed after 2 months of study

.No	Class	fi	Persentage
1	1 – 5	48	52.17%
2	6 – 9	44	47.83%
3	10 - 13	0	0.00%
Total		**92**	**100%**

Source: Self-processed

If the standard of typing speed after learning 2 months of Keyboarding is typing 5 lines in 5 minutes then there are only 52.17% of students who are able to pass that limit. Several things that might result in not achieving the predetermined standards are due to the time to take advantage of the training facilities in the Shark Typer Deluxe software such as games that can increase typing speed.

Figure 4.2. Distribution of Graduated Students by Speed Typing after Learning to Type 2 Months

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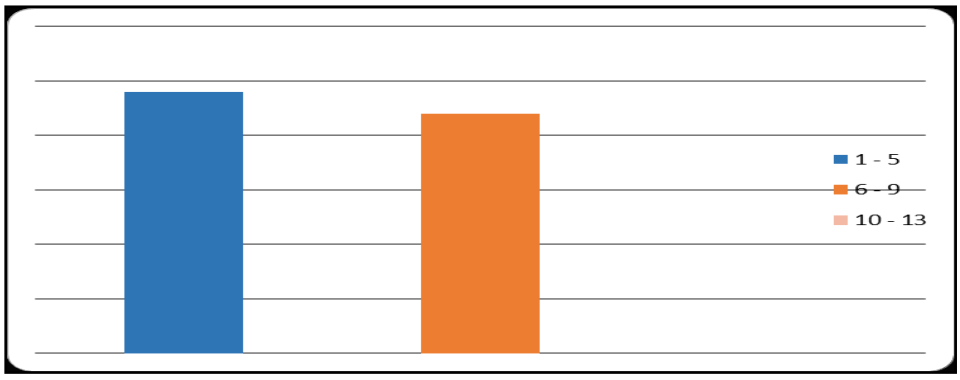


Source: Self-processed

4.1.2. Four Months Learning Period

If the standard for typing speed in a 4 month study period is in 3 minutes students must be able to type 5 lines, then there are only 71 students who meet these standards or in the percentage there are 71.17%.

Based on Table 4.4. below then the number of typing 5 lines within 1-3 minutes is 71.17%. While those who are able to type 5 lines in 4-6 minutes are 22.83%. While those who are able to type 5 lines in 7-9 minutes are 0.00

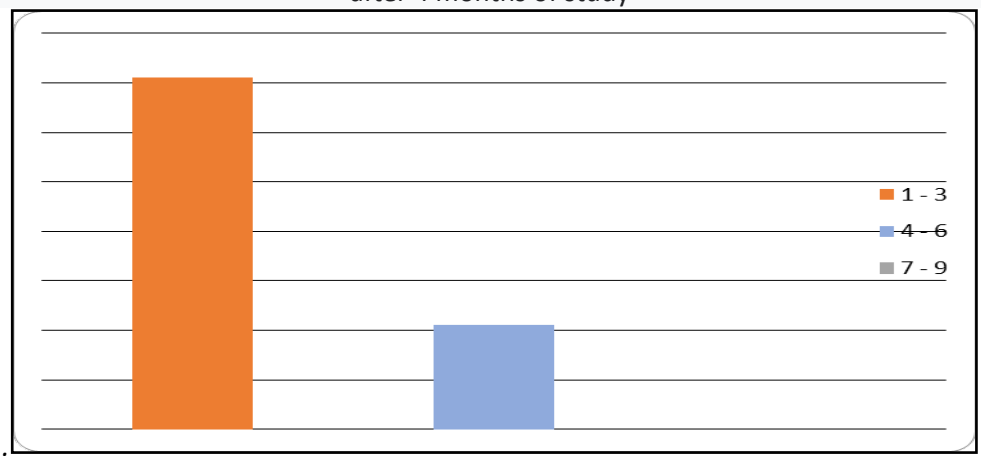
Tabel 4.2. *Statistics distribution of genuine IBM student typing speed after 4 months learning.*

No	Class	fi	Persentage
1	1 – 3	71	71.17%
2	4 – 6	21	22.83%
3	7 - 9	0	0.00%
Total		**92**	**100%**

Source: Self-processed

If the standard typing speed after learning 4 months of typing (Keyboarding) is 5 lines in 3 minutes, then there are 71.17% of students who are able to pass that limit. This means that there are still 22.83% who are unable to pass this limit. Several things that might result in the achievement of predetermined standards are because there is time to take advantage of the training facilities in the Shark Typer Deluxe software such as games that can increase typing speed.

Figure 4.2. Statistics distribution of original IBM student typing speed after 4 months of study



Source: Self-processed

4.2. Description of Typing Accuracy

4.2.1. 2 Months Study Period

If the standard of typing accuracy in the 2 month learning period is in 5 minutes of fast typing, the error tolerance limit is 6 words. This means that students must be able to type 5 lines in 5 minutes with an error rate of 6 words.

Based on Table 4.3. below, the number who make errors of 0 – 6 words when typing 5 minutes is 21.74%. Meanwhile, those who made an error of 7 – 11 words when typing 5 minutes were 78.26%. There are 0% of students who make mistakes in typing 12-17 words during 5 minutes of typing.

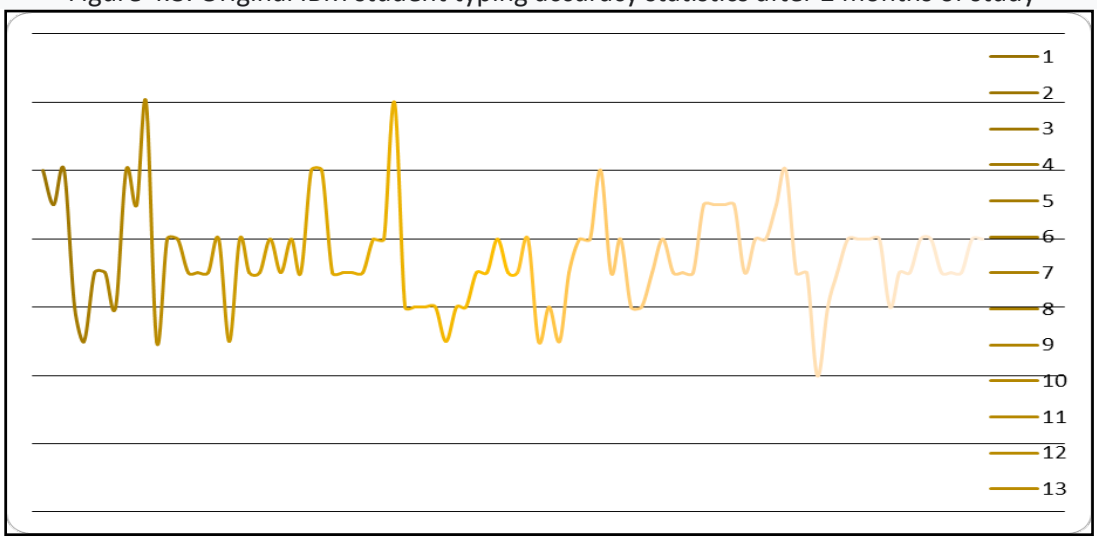
Tabel 4.3. *Distribution of statistics on typing accuracy of genuine IBM students after 2 months of Keyboarding Learning.*

No	Class	fi	Persentage
1	0 – 6	20	21.74%
2	7 – 11	72	78.26%
3	12 - 17	0	0.00%
Total		**92**	**100%**

Source: Self-processed

Based on Table 4.3, it turns out that only 21.74% of students passed the standard of accuracy after learning 2 months of keyboarding. Several things that might result in not achieving the predetermined standards are because there are still minimal exercises that use the facilities in Shark Typer Deluxe to improve typing accuracy in the form of typing accuracy games.

Figure 4.3. Original IBM student typing accuracy statistics after 2 months of study



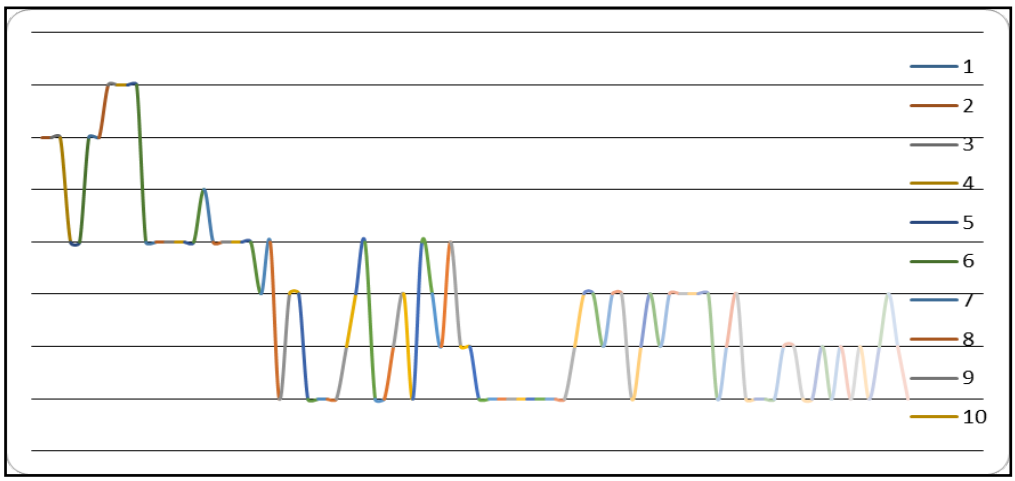
Source: Self-processed

4.2.2. Four Months Learning Period

The following is the typing data that shows the achievement of typing accuracy of students who became research respondents after 4 months of Keyboarding learning period are:

Based on the processed data, it can be seen that the highest value of typing accuracy in the 4 month period of typing is 0, which means that during 3 minutes of typing the number of errors is 0 words. Then the lowest value is 6, meaning that during typing 3 minutes the number of errors is 6 words. The average is 1.71, which means that during 3 minutes of typing the average error rate of all respondents is 1.71 or about 2 words in 3 minutes with a deviation of 1.69.

Figure 4.4. Statistics of genuine IBM student typing accuracy after 4 months learning



Source: Self-processed

If the standard of typing accuracy in a 4 month learning period is 3 minutes of fast typing, the error tolerance limit is 3 words. This means that students must be able to type 5 lines in 3 minutes with a maximum error rate of 3 words.

If the standard of typing accuracy in the 2 month learning period is in 5 minutes of fast typing, the error tolerance limit is 6 words. This means that students must be able to type 5 lines in 5 minutes with an error rate of 6 words.

Based on Table 4.4. below, the number who make errors of 0 – 3 words when typing 3 minutes is 89.13%. While those who made errors between 4-7 words were 10.87%. Not a single student made an 8-11 word error after typing 3 minutes after learning keyboarding for 4 months.

Table 4.4. Statistical distribution of original IBM student typing accuracy after 2 months of Keyboarding Lessons

No	Kelas	fi	Persentase
1	0 – 3	82	89.13%
2	4 – 7	10	10.87%
3	8 - 11	0	0.00%
Total		**92**	**100%**

Source: Self Processed

Based on Table 4.4, it turns out that there are 89.13% of students who passed the standard of accuracy after learning 4 months of keyboarding. Several things that might result in not achieving the predetermined standards are because there are still minimal exercises that use the facilities in Shark Typer Deluxe to improve typing accuracy in the form of typing accuracy games.

4.3. Speed and Accuracy Test

Overall statistical comparison between typing speed after studying 2 months and 4 months Keyboarding are as follows:

Table 4.5. Comparison of statistics on typing accuracy of original IBM students after 2 months with 4 months of Keyboarding lessons

Two Months		***Four Months***	
Mean	5.57	Mean	3.72
Standard Error	0.11	Standard Error	0.07
Median	6.00	Median	3.00
Mode	6.00	Mode	3.00
Standard Deviation	1.32	Standard Deviation	0.85
Sample Variance	1.74	Sample Variance	0.73
Kurtosis	0.73	Kurtosis	-0.55
Skewness	0.34	Skewness	0.71
Range	7.00	Range	4.00
Minimum	3.00	Minimum	2.00
Maximum	10.00	Maximum	6.00
Sum	813.00	Sum	543.00
Count	146.00	Count	146.00
Largest(1)	10.00	Largest(1)	6.00
Smallest(1)	3.00	Smallest(1)	2.00
Confidence Level(95.0%)	0.22	Confidence Level(95.0%)	0.14

Based on the data in Table 4.5, it can be seen that there is a statistical difference between learning keyboarding for 2 months and 4 months. This can be seen from the Mean (average),

Median (Middle Value), standard deviation and Maximum and Minimum values. Generally shows a decrease after 4 months of study.

4.3.1. Testing the Difference in Typing Speed between 2 Months of Learning with Learning Standards

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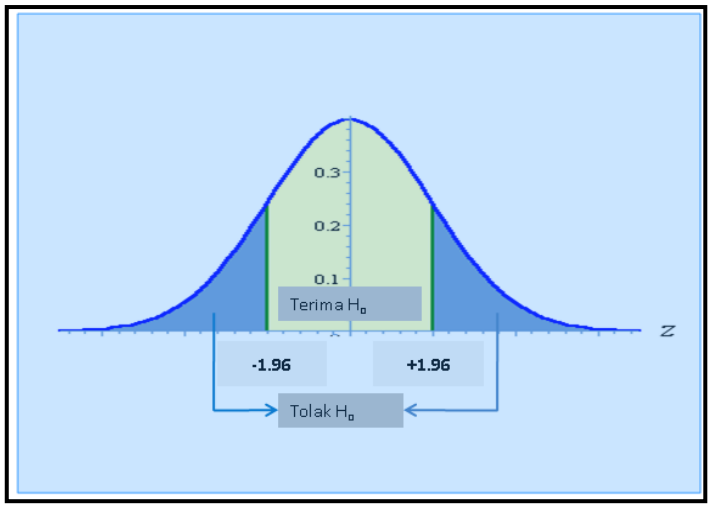
1. Hypothesis

Ho : $\mu X = np = (78).(0.5) = 39.0$, Not reaching the standard typing speed of 5 lines in 5 minutes

Ha : $\mu X \neq np = (78).(0.5) \neq 39.0$, Reaching the standard typing speed of 5 lines in 5 minutes

2. Critical Areas

This test uses a test at an error rate of 5% ($\alpha = 0.05$) so that the critical limits are -1.96 and +1.9.6



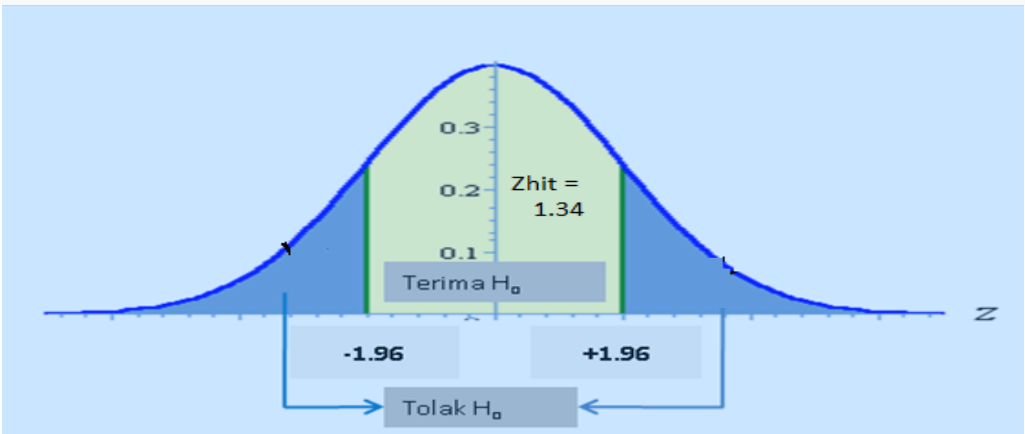
3. Z Value

$$Z = \frac{X - np}{\sqrt{np(1-p)}} = \frac{45-(39)}{\sqrt{(39)(0.5)}} = \frac{6}{\sqrt{19.75}}$$

$$= \frac{6.0}{4.45} = 1.34$$

4. Comparison

It can be seen that the Zhit value is in the area of acceptance of Ho or rejection of Ha.



5. Conclusion

Accept Ho reject Ha . This means that in learning Keyboarding for 2 months, the standard typing speed of 5 lines has not been reached in 5 minutes.

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4.3.2. Testing the Difference in Typing Speed between 4 Months of Learning with Learning Standards

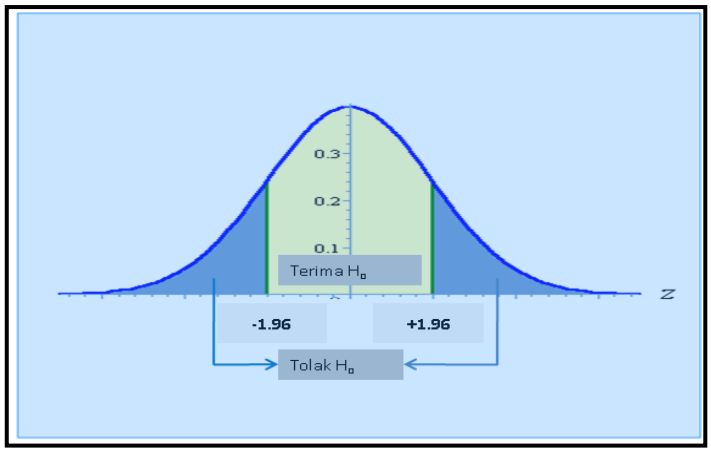
1. Hypothesis

Ho : $\mu X = np = (30).(0.5) = 15.0$, Not reaching the standard typing speed of 3 lines in 3 minutes

Ha : $\mu X \neq np = (30).(0.5) \neq 15.0$, Not reaching the standard typing speed of 3 lines in 3 minutes

2. Critical Areas

This test uses a test at an error rate of 5% ($\alpha = 0.05$) so that the critical limits are -1.96 and +1.9.6



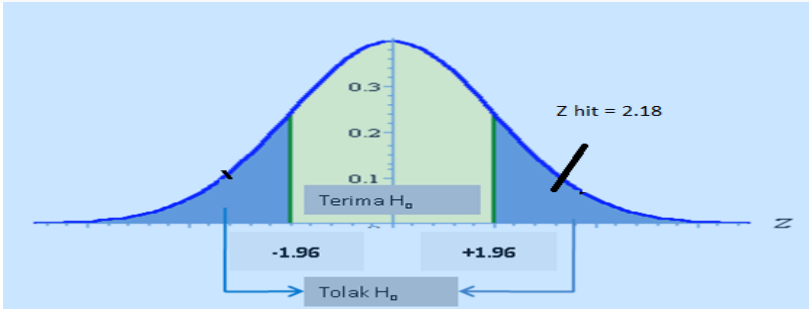
3. Z Value

$$Z = \frac{X - np}{\sqrt{np(1-p)}} = \frac{21-(15)}{\sqrt{(15)(0.5)}} = \frac{6}{\sqrt{7.5}}$$

$$= \frac{6}{2.74} = 2.18$$

4. Comparison

It can be seen that the value of Z is in the area of rejection of Ho or acceptance of Ha.



5. Conclusion

Accept Ha reject Ho . This means that the student's achievement after learning 4 months of typing is in accordance with the established standard, namely 3 lines in 3 minutes.

4.3.4. Testing the Difference in Typing Speed between 2 Months of Learning with 4 Months of Learning

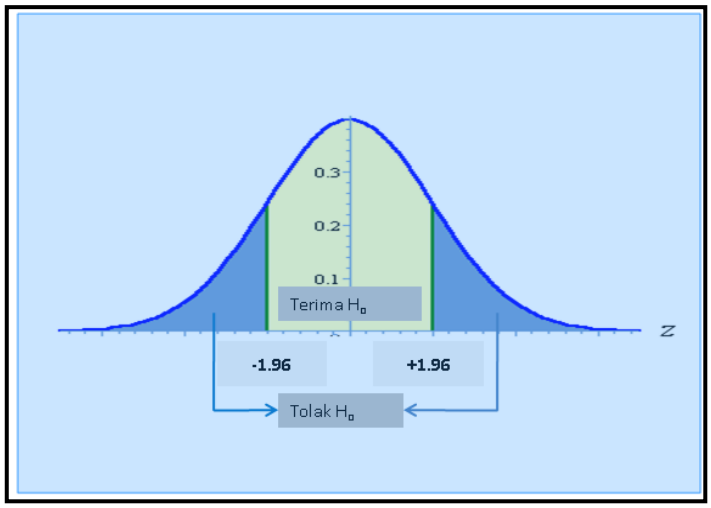
1. Hypothesis

Ho : $\mu X = np = (85).(0.5) = 42.5$, Not reaching the standard typing speed of 3 lines in 3 minutes

Ha : $\mu X \neq np = (85).(0.5) \neq 42.5$, Not reaching the standard typing speed of 3 lines in 3 minutes

2. Critical Areas

This test uses a test at an error rate of 5% ($\alpha = 0.05$) so that the critical limits are -1.96 and +1.9.6



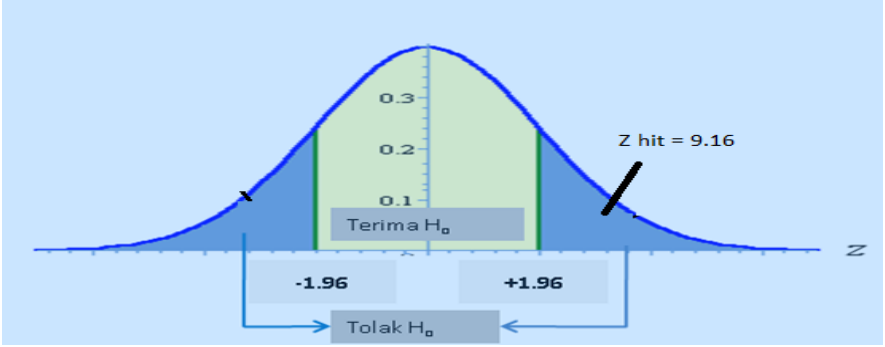
3. Z Value

$$Z = \frac{X - np}{\sqrt{np(1-p)}} = \frac{85 - (42.5)}{\sqrt{(42.5)(0.5)}} = \frac{42.5}{\sqrt{21.5}}$$

$$= \frac{42.5}{4.64} = 9.16$$

4. Comparison

It can be seen that the Zhit value is in the area of rejection of Ho or acceptance of Ha.



5. Conclusion

Accept Ha reject Ho . There is a significant difference between typing speed after learning Keyboarding for 2 months and 4 months.

4.3.5. Testing the Difference in Typing Accuracy between 2 Months of Learning with Learning Accuracy Standards

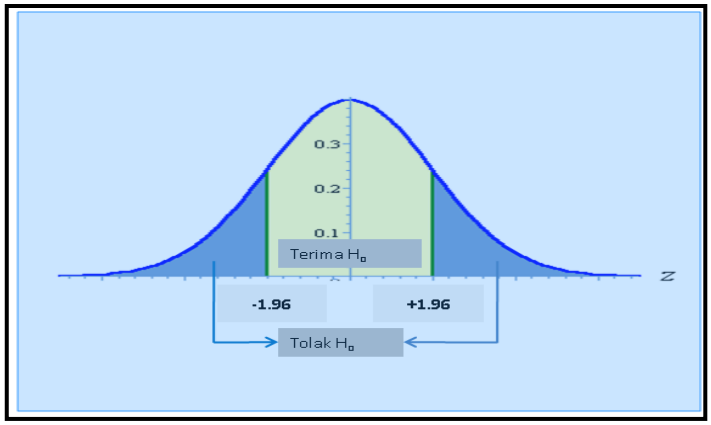
1. Hypothesis

Ho : $\mu X = np = (79).(0.5) = 39.5$, Not reached the standard of typing accuracy of 6 wrong words in 5 minutes of typing

Ha : $\mu X \neq np = (79).(0.5) \neq 39.5$, Reached the standard of typing accuracy of 6 wrong words in 5 minutes of typing

2. Critical Areas

This test uses a test at an error rate of 5% ($\alpha = 0.05$) so that the critical limits are -1.96 and +1.9.6



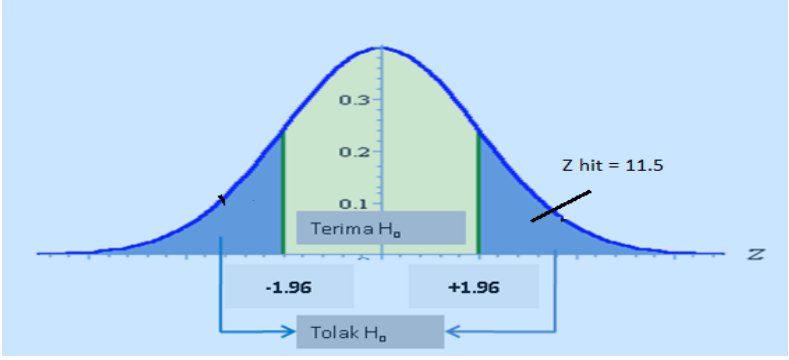
3. Z Value

$$Z = \frac{X - np}{\sqrt{np(1-p)}} = \frac{73 - (39.5)}{\sqrt{(39.5)(0.5)}} = \frac{33.5}{\sqrt{19.5}}$$

$$= \frac{33.5}{4.42} = 7.58$$

4. Comparison

It can be seen that the Z value is in the area of rejection of Ho or acceptance of Ha.



5. Conclusion

Accept Ha reject Ho . The level of accuracy of learning Keyboarding for 2 months has not reached the learning standard, namely the number of errors of 6 words in 5 minutes of typing.

4.3.6. Testing the Differences in Typing Accuracy between 4 Months of Learning with Learning Accuracy Standards

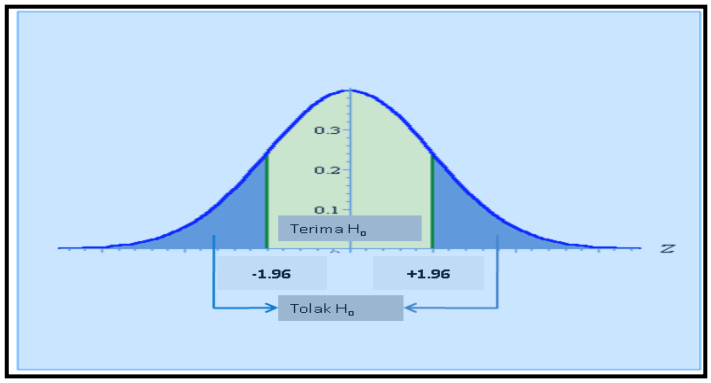
1. Hipotesis

Ho : μX = np = (76).(0.5) = 38.0, The standard for typing accuracy is not achieved as many as 3 wrong words in 3 minutes of typing

Ha : μX ≠ np = (76).(0.5) ≠ 38.0, The standard for typing accuracy is achieved as many as 3 wrong words in 3 minutes of typing

2. Critical Areas

This test uses a test at an error rate of 5% (α = 0.05) so that the critical limits are -1.96 and +1.9.6



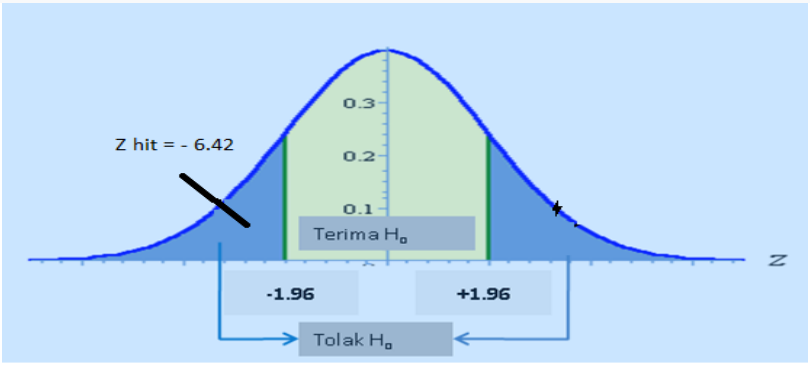
3. Z Value

$$Z = \frac{X - np}{\sqrt{np(1-p)}} = \frac{10 - (38)}{\sqrt{(38)(0.5)}} = \frac{-28.0}{\sqrt{(19)}}$$

$$= \frac{-28.0}{4.36} = -6.42$$

4. Comparison

It can be seen that the Zhit value is in the area of rejection of Ho or acceptance of Ha



5. Conlusion

Accept Ha reject Ho . The level of accuracy of learning Keyboarding for 4 months has reached the learning standard, namely the number of errors of 3 words in 3 minutes of typing.

4.3.7. Testing the Differences in Typing Accuracy between 4 Months of Learning with Learning Accuracy Standards

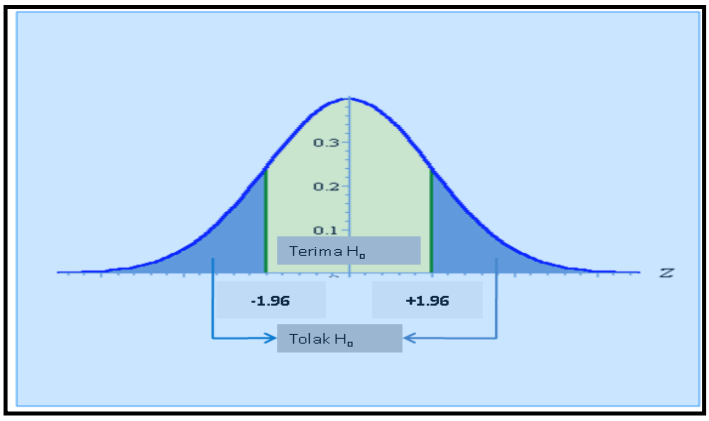
1. Hypothesis

Ho : μX = np = (91).(0.5) = 45.5, There is no difference between typing accuracy for 2 months and 4 months

Ha : μX ≠ np = (91).(0.5) ≠ 45.5, There is difference between typing accuracy for 2 months and 4 months

2. Critical Areas

This test uses a test at an error rate of 5% (α = 0.05) so that the critical limits are -1.96 and +1.9.6



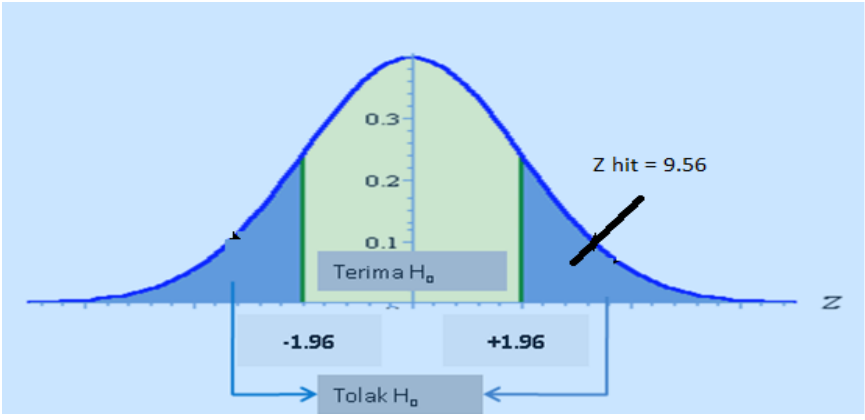
3. Z Value

$$Z = \frac{X - np}{\sqrt{np(1-p)}} = \frac{90 - (45.5)}{\sqrt{(45.5)(0.5)}} = \frac{45.5}{\sqrt{22.75}}$$

$$= \frac{45.5}{4.76} = 9.56$$

4. Comparison

It can be seen that the Z value is in the area of rejection of Ho or acceptance of Ha.



5. Conclusion

Accept Ha reject Ho. This means that there is a difference in the level of typing accuracy after students learn keyboarding for 2 months and 4 months.

CONCLUSION

Based on the previous discussion, some conclusions from this research are as follows:

1. Based on the descriptive level of students' typing speed achievement, students learn Keyboarding for 2 months using the Typer Shark Deluxe software, the average speed is 5.27 minutes to type 5 lines. There are 48 (52.17%) people who need 1 – 5 minutes to type 5 lines. Meanwhile, 44 (47.83%) people who are able to type 5 lines are able to type 6 – 9 minutes. While it takes 9-12 minutes to type 5 lines, there are 0.00%. Based on the descriptive level of achievement of students learning keyboarding for 4 months the average value of the speed is 3.25 minutes to type 5 lines. There are 71 (71.17%) people who need 1-3 minutes to type 5 lines. Meanwhile, 21 (22.83%) people took 4-6 minutes to type 5 lines. While it takes 7-9 minutes to type 5 lines, there are 0.00%.
2. Based on the descriptive level of achievement of students' typing accuracy, students learn Keyboarding for 2 months using the Typer Shark Deluxe software, the average accuracy value is 7.45 wrong words when typing for 5 minutes. There are 20 (21.74%) people whose accuracy level is 0 – 6 words during 5 minutes of typing. While the level of accuracy is 7-11 words during 5 minutes of typing, there are 72 (78.26%) people. While the accuracy level of 12-17 words is 0.00%. Based on the descriptive level of achievement of typing accuracy, students learn Keyboarding for 4 months using the Typer Shark Deluxe software, the average accuracy value is 1.71 words that are wrong when typing for 3 minutes. There are 82 (89.13%) people whose accuracy level is 0 – 3 words during 3 minutes of typing. While the accuracy level is 4-7 minutes while typing 3 minutes there are 10 (10.87%) people. While those that take 8-11 minutes are 0.00%.
3. The results of testing the hypothesis on typing speed show that after learning the month of Keyboarding using the Typer Shark Deluxe software, the standard typing speed has not been reached, which is 5 lines in 5 minutes. But after studying for 4 months the speed level with the standard 5 lines in 3 minutes has been reached
4. The results of hypothesis testing on typing accuracy show that after learning 2 month. Keyboarding using the Typer Shark Deluxe software has not yet reached the standard of typing accuracy, which is a maximum of 6 wrong words in 5 minutes of typing. However, after studying for 4 months the level of accuracy with the standard 3 wrong words in typing for 3 minutes has been achieved.

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