The Use of Cohesive Devices in Descriptive Text by English Training Participants at PST”

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Abstract

Today, many media to large companies are starting to invest English skills in their employees, including Pura Smart Technology (PST). This research aims to find out the use of cohesive lexical devices, the use of cohesive grammatical devices, the correctness of cohesive device uses, and the correlation of cohesive device use and descriptive text writing skills of the participants. The researcher took eleven employees as the participants. The researcher analyzed the data with Halliday & Hasan's theory, Coh-Metrix 3.0, and Spearman Correlation. The results were repetition with 54.92%, synonym with 6.81%, hyponym with 33.71%, meronym with 3.40%, and collocation with 1.14%. In terms of grammatical cohesion, the researcher found a reference with 29.54% and conjunction with 69.31%. The result also showed that the participants' cohesive device use excellence was 39.65%, with a very strong correlation, \( r_s = 0.95 \). The researchers found that the English training participants had low mastery of cohesive device use quality. The researchers also found that the participants' cohesive devices and writing skills had a strong, significant, and immense correlation. The researchers suggest that future researchers upgrade the study's object and involve participants from different and complex backgrounds. From the pedagogical perspective, cohesive device uses are important to create a good image and judge an excellent educational background between the writer and the reader while understanding the meaning. Thus, writers can produce texts without any hoax information nowadays. Practically, these results help people use text appropriately in formal and non-formal settings.
INTRODUCTION

Use of cohesive devices in writing is essential; therefore, it is important to study. Not to mention, researching about how writers develop their writing skills particularly descriptive texts by using appropriate cohesive ties is also important. Cohesive devices also facilitate authors to build meaningful passages. Everyone needs this study, both those academicians and non-academicians. Likewise, every English training participant in Pura Smart Technology (PST) is expected to have excellent English writing proficiency. In this 4.0 industrial change, communication becomes a life skill. Thus, everyone must have it, including private workers.

In the present day, large corporations perceive the English skills of their employees as an investment. Thus, they search for English training for their employees to apply their English skills in the working field. The corporations expect the employees with English skills could contend and encounter new challenges in the future. This effort does not require the corporations to employ international workers.

English training is considered extremely suitable as the main asset in surviving national and international competitions and character building and competency in the 4.0 era. This demand makes PST, a leading manufacturer of smart card product technology and Radio Frequency Identification, RFID, in South East Asia, obligate the employees to join English training for six months from 18th August 2019 to 7th January 2020. The corporation requires the employees to have excellent writing skills for daily working activities, daily working descriptions, and writing specific text.

This research focused on the cohesive devices used in writing descriptive text. The researchers also investigated the writing skills of staff, head division, and manager at PST. The researchers designed writing skills instructions by observing the participants' condition, expectations, and reality. Here is the frame of the research problem formulation:

1. How are lexical-cohesive devices used in descriptive texts written by English training participants at PST?
2. How are grammatical-cohesive devices used in descriptive texts written by English training participants at PST?
3. How do the English training participants at PST use cohesive devices in writing descriptive texts?
4. How is the correlation between using cohesive devices and writing skills in descriptive texts written by English training participants at PST?

Scholars also refer cohesive devices to ways of writing. Cohesive devices also indicate the writing quality. Thus, writers must pay attention to cohesive devices and factors such as case, individual lore, culture, and contextual edging based on writers' situations. Most writers avoid complex forms (Halliday & Hasan, 1976). Puspitorini (2011) found grammatical cohesion, such as reference, substitution, conjunction, ellipsis, reiteration, and collocation. The author found the most applied lexical cohesive devices were: reference (52.6%), conjunction (28.7%), reiteration (16%), collocation (1.9%), and substitution and ellipsis (0.4). Rahman (2013) uncovered a significant correlation between the natives' and the learners' use of cohesive bonds. However, learners often employed repetition and reference and neglected to utilize another tie. Thus, their texts were non-cohesive.

Writing is also useful to communicate. This communication via writing occurs beyond the sentence level. For example, a writer that connects two clauses must ensure the cohesion and coherence of the connected clause, the sentence. Latifah and Triyono (2020) explain that cohesion is important for language users to produce meaning. Suwandi (2016) explains that cohesion allows readers to build a sense of reading with some devices or ties. Thus, readers, observers, or listeners can draw the meaning of the text while writers or speakers can make the passage more communicative.

Many scholars have investigated cohesion, coherence, and cohesion devices. McNamara et al. (2014) used Coh-Metrix at multiple language
levels to determine the complexity of a text. They found that referential cohesion and deep cohesion played important roles in lowering the complexity of a passage. Mora et al. (2021) found that incorrect cohesion ties lowered the readability of a passage. They found this result on learners while writing narrative texts. Razaque and Jat (2020) found that the reflection of low language proficiency was observable using cohesive devices. This situation would make passages lose their unity and meaning. Lio's (2016) study result suggested proficient students could use more types of cohesion, such as local cohesion, global cohesion, and text cohesion. Rahman (2013) revealed a correlation between writing proficiency level and cohesion. Moini (2016) presented different percentages of cohesion in terms of conjunctions, elaboration, and extension between L2 learners' writing and pieces of regular literature.

The frequency of cohesive device uses also influences the readability of a passage. Gizatulina et al. (2020) found that the frequency of cohesive device uses influenced the length of clauses. They used various instruments to measure the readability, including Coh-Metrix. Then, the results indicated a high frequency of cohesive devices used could lower the clause length, an average of 7 words per clause. This average score made the reading passage readable for readers.

Shorter clauses are more understandable than longer clauses. It happens because the clause provides meaningful and adequate information. Hiebert (2017) explains content words of a clause provide information. These words answer the basic WH questions while readers read. Thus, the readers will find the clause confusing if a clause contains more content words than the basic WH-questions answer. Eventually, the writer must separate and break the longer clauses into at least two clauses with cohesive devices, for example, conjunction, to create meaningful clauses.

The researchers took some references on descriptive text study reviews, one of them is a study by Anggun (2016). The researcher showed incorrect cohesive devices in descriptive texts made the text deviate from the original objective of descriptive text functions. Kirana et al. (2018) encountered one of the English learners' difficulties in writing the descriptive text was – vocabulary of cohesive devices. Noprianto's (2017) research uncovered challenges for English learners to write descriptive texts included realizing the social function of the text, writing chronologically, and using the language features. Helmie et al. (2021) displayed improved learners' descriptive text writing from five aspects: content, organization, grammar, vocabulary, and mechanics. From Helmie's research, the researchers used the author's finding of vocabulary improvement. The current researchers considered vocabulary improvement also consisted of cohesive device use improvement.

Since the existence of PST is more credible at the national and international level, colleagues always come and engage from around the world. Thus, the employees must excellently master international communication skills in English.

All divisions in the factory used English, starting from production, financial, training, etc. They used English from simple matters, such as offering products, describing objects, negotiating, presenting products or ideas, and many more. Communication skills develop from spoken to written mode (Faizah, Sutopo & Faridi, 2020). Usually, people can get information and share or convey ideas through writing (Undayasari & Shaleh, 2018; Faizah, Sutopo & Faridi, 2020). Harmer (cited in Muhib, Anggani & Hartono, 2014; Anggrayani, Sofwan, & Saleh, 2015; Priangan, Saleh & Rukmini, 2020) suggest that writing is as important as listening, speaking, and reading, although writing skill is more complicated for learners to study. This is due to the fact that writing requires high-level thinking skills (Hidayat, Rukmini, & Bharati, 2019, p.166; Priangan, Saleh & Rukmini, 2020).

From a pedagogical point of view, writing is important. However, many parties perceive that this skill is unimportant (Struthers, Lapadat, & Mac. Millan, 2013). Writing holds an extensive manner to reveal the concept (Mamduhan, Fitriati & Sutopo, 2019, p.85, Priangan, Saleh & Rukmini, 2020). Fitriati and Yonata (2017) describe that creating text is not simple to express
the thought under the magnificent-denotative quarreling.

This research only focused on descriptive text writings. The researchers assumed that some training participants had difficulties writing based on the preliminary observation. Then, the researchers were only concerned with the use of cohesion in descriptive text. The researchers used an online database to ensure and support the standard analysis process to answer the problems and execute the research plan.

METHODS

Cohesion’s unity is a text system with the fundamental element of making meaning of the text. It is an apparatus for the readers to understand the text (Halliday & Hasan, 1976). All texts must have cohesion, including descriptive text. In this research, the researchers investigate how the staff and manager at PT Pura Smart Technology (PST) implemented the cohesive devices in the text.

The researchers used the discourse analysis approach. Kamalu and Osisanwo (2015) describe the discourse analysis approach as a study approach toward a language. This language may include spoken and written languages. Then, the design of this research is a qualitative case study design. Sugiyarto et al. (2015) and Creswel (2014) argued that the qualitative study is a methodology whose “the researcher is interested in the process, meaning, and understanding gained through words or pictures.” Although qualitative research uses words, pictures, interviews, and non-quantitative means, the data and the analysis must ensure validity and trustworthiness (Denzin & Salvo, 2020). Thus, qualitative research could provide meaningful results for readers and future researchers (Wang, 2021).

The researchers also used some formulas to find the frequency of cohesive devices, the correctness of the cohesive device uses, and the correlation between the use of cohesive devices and writing skills. The researcher anatomized the cohesive bonds employing manual calculation adopted from Halliday and Hasan’s theory, the correctness of cohesive devices for descriptive text with Coh-Metrix 3.0 tool, and the correlation between cohesive devices and writing skills via Spearman Rank correlation statistics.

The researchers used a statistical technique to test the non-parametric statistic hypothesis. The indication was observable from the ordinal data types. The statistical test that the researcher applied was the Spearman Rank.

Based on Sugiyono’s explanation, the researcher used Spearman Rank correlation (rₙ) because the research variables were ordinal scale. Here is the formula of Spearman Rank Correlation (rₙ):

\[ rₙ = \frac{1-\frac{6\sum d^2}{n(n^2-1)}}{\sqrt{n-2}} \]

Note:
- \( rₙ \): Spearman Correlation Coefficient.
- \( \sum d^2 \): the sum of the square of the difference between rankings.
- \( n \): “the sum of the research sample.”

The researchers also determined the significant values with the following formula (Sugiyono, 2008, p. 250):

\[ t = \sqrt{\frac{n-2}{1-r^2}} \]

Notes:
- \( r \): correlation
- \( n \): samples
- \( t \): significant level (t count), which is then compared with t table

The researchers used the r-table to compare the critical value of the correlation coefficient at the significant level of 1. Here is the formula:

a) \( rₙ \) count > \( rₙ \) table to indicate the significant effect between cohesive devices and writing skills. Thus, the result rejected \( H₀ \) and accepted \( Hₐ \);

b) \( rₙ \) count < \( rₙ \) table shows no significant effect between cohesive devices and writing skills. The result accepts \( H₀ \) and rejects \( Hₐ \).

The researchers determined the influence of X to Y with the determination coefficient, KD. The researchers represented the coefficient with a percentage (%).
KD = (r_s)^2. 100%  
KD : coefficient determination, stating to what extent the dependent variable changes (considering the materiality level
r_s : Rank Spearman Correlation

Here are the interpretations of the correlation coefficient calculation. Table 1 is useful to determine the strength and correlation of the variables.

Table 1. The Guidelines to Interpret the Correlation Coefficients

<table>
<thead>
<tr>
<th>Coefficient Interval</th>
<th>Level Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 – 0.1999</td>
<td>Very Low</td>
</tr>
<tr>
<td>0.20 – 0.399</td>
<td>Low</td>
</tr>
<tr>
<td>0.40 – 0.599</td>
<td>Moderate</td>
</tr>
<tr>
<td>0.60 – 0.799</td>
<td>Strong</td>
</tr>
<tr>
<td>0.80 – 1.000</td>
<td>Very Strong</td>
</tr>
</tbody>
</table>

Source: Sugiyono, (2012:250)

The researchers used cohesive devices and writing skill data to determine the correlation of the variables. The participants were English training participants at PST. The research object consisted of eleven descriptive texts. After obtaining the data, the researcher promoted the planned step to reach the objectives.

RESULTS AND DISCUSSION

The researchers analyzed the data regarding the lexical and grammatical cohesive bounds in the English training participants' written text at Pura Smart Technology, PST. Graphic 1 shows the lexical cohesion of the data.

Graphic 1 shows the cohesive lexical devices. They are repetition (54,92%), synonym (6,81%), hyponym (33,71%), meronym (3,40%), and collocation (1,14%). The repetition, or restating the same lexical item, dominates the cohesive ties of the texts. The evidence is from the third participant's written sentence.

“I think PST will be able to compete with similar companies also PST will be to expand their companies as a total solution and will be able to be a leading company in Asia” (Participant 3).

The participant restates the abbreviation, PST, in the following sentence.

“In PST, there is so many type of people, division, working area” (Participant 3).

Halliday and Hasan's theory clarifies that lexical cohesion is important in creating meaning. Rahman (2013) found the frequency of cohesion in various items. The author also found a cohesive device balance in writing quality. In Halliday and Hasan’s theory, grammatical-cohesive devices include reference, conjunction, ellipsis, and substitution. In this research, the researchers found two grammatical-cohesive lines. They were reference (29,54%) and conjunction (69,31%).

The researcher found a high rate of conjunction uses. Graphic 2 shows the conjunctions are connective words, phrases, and clauses. Halliday and Hasan (1976) categorize the conjunctions into additive, adversative, causal, and temporal. Additive conjunction coordinates the ideas while adversative conjunction reverses the outlook. The clausal conjunction deals with the realized reasons, results, and purposes connected in clauses. In this case, participant 3 had a high rate of conjunction uses 24 times.
"But for me, if I had a chance to look for another job, I would do it. The environment sometimes working not support us because there is inequality based on subjectivity which sometimes feels unjust".

"but" and "because" words reflect the adversative and clausal conjunction.

The researcher found the use of reference dominantly in terms of grammatical cohesion. It has the function to correlate the text, human, and object. Generally, reference has three manners: personal, demonstrative, and comparative. Personal reference deals with individual ways, such as personal, process, and adjectival pronoun. In this research, the researcher found participant 3 mostly used reference.

"...I can say I proud I had ever worked in here an to be a part of the success of this company and I hope I can give my best contribute to support this company".

The references are observable in the words of here, this company, and my best. The words here refer to the company. The word this company is a demonstrative reference, while the word my best is a comparative reference/

Halliday and Hasan explain that grammatical cohesion holds significant writing quality over lexical cohesion. Rahman (2013) also suggested that cohesive devices may include various items.

The reference"

Figure 3. The Correctness of the Applied Cohesive Devices

The researchers derived the following data as the participants' cohesive devices. Their cohesion quality in descriptive text obtains a percentage of 39.65%. Hongwei & Liqin (2013) found the indices of word numbers with Flesch Reading Ease Scores from 0-100. The word frequency, logarithm, mean of the content word were 0-6, based on Coh-Metrix 2.1 with an overall percentage of 25.6%. The percentage indicated the writing proficiency evaluation of the teacher.

The researchers computed the analyzed data by adopting the Spearman correlation formula technique. The researcher looked for the writing skills through Brown's theory before enumerating the correlation statistics,

Figure 4. Writing Skills Adopted by Brown (2007)

The graphic shows the mean of writing skills is 6.9, with the lowest score 5 and the highest score 10. The researchers put the data into a correlation statistics wording. The researchers also used the Spearman correlation statistics formula to quantify the level of the correlation between both variables. In this case, the variables were in ordinal data form.

Table 2. the Index Correlation between The Use of Cohesive Devices and Writing Skills in Descriptive Texts Written by English Training Participants at Pura Smart Technology (PST)

<table>
<thead>
<tr>
<th>PARTICIPANTS</th>
<th>SCORE X</th>
<th>RANK Y</th>
<th>RANK Y</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>40</td>
<td>7.5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>26</td>
<td>5.75</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>100</td>
<td>9.5</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>4.25</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>43</td>
<td>7</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>42</td>
<td>9.5</td>
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<tr>
<td>7</td>
<td>13</td>
<td>4.5</td>
<td>11</td>
<td>10</td>
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<tr>
<td>8</td>
<td>48</td>
<td>10</td>
<td>2</td>
<td>1</td>
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<tr>
<td>9</td>
<td>57</td>
<td>6</td>
<td>6</td>
<td>7</td>
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<tr>
<td>10</td>
<td>27</td>
<td>7</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>51</td>
<td>5</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Σ</td>
<td>442</td>
<td>76</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

The researchers calculated the data and then fitted it in the table of index correlation.
based on the applied theory in this study. In this study, the researchers found a range of correlation ($r_s$) of 0.95. Thus, both variables had a strong and significant correlation with the number ($t$) 10.16, and extensive influence with the figure (KD) 91%.

**CONCLUSIONS**

The researchers concluded seven implicated items in using cohesive devices, grouped into two enormous cohesions: lexical and grammatical cohesion. The seven cohesive bonds were repetition, synonym, meronym, hyponym, collocation, conjunction, and reference. In this research, the researchers did not investigate the grammatical-cohesive.

The researchers found that the English training participants had low mastery of cohesive device use quality. The researchers could infer that the participants' cohesive devices and writing skills had a strong, significant, and immense correlation.

From the results, the researchers suggest that future researchers upgrade the study's object and involve participants from different and complex backgrounds. From the pedagogical perspective, cohesive device uses are important to create a good image and judge an excellent educational background between the writer and the reader while understanding the meaning. Thus, writers can produce texts without any hoax information nowadays. Practically, these results help people use text appropriately in formal and non-formal settings.

The researchers expect the graduates of Universitas Negeri Semarang to work out this descriptive text in daily conversation or another purpose.

**REFERENCES**


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