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THE CORRELATION BETWEEN STUDENT'S PERCEPTION AND COMPREHENSION ACHIEVEMENT OF THE ENGLISH LANGUAGE DERIVATIONAL MORPHOLOGY

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ABSTRACT

The research investigated the correlation between the perception and achievement of the students of English language derivational morphology comprehension. The perception was what was claimed, and the achievement was what was gained. There were primary and secondary data in the research. The primary data were collected by survey, and the secondary data were taken from the mid-test score record documented in the Academic Information System. The survey was implemented by distributing 18 questionnaire statements to 62 respondent students enrolling in English Morphology class. The non-parametric data resulted from the Likert Scale of 1 to 4 options. The perception was interpreted using the index percentage equation, and the interval of percentage was 25. Moreover, the achievement was calculated using the mean score equation. The Pearson Product Moment formula was applied to compute the correlation between perception and achievement. It is revealed that the students' perception index on the English language derivational morphology is 52,53%, falling into the criteria of 50,01%-75,00% with the category of 'I get it'. Furthermore, the mean score of student achievement is 76,45 and is categorized as 'good', placing in the range of 70,00-79,99. The research concludes that the null hypothesis is accepted, and the perception does not correlate linearly with the achievement of the comprehension of the English language derivational morphology. The correlation coefficient is -0,04365, and the category of the correlation is negligible. Despite the correlation and its category, this research infers that the perception is understandable, and comprehension is achievable.

Keywords: *student perception, comprehension achievement, English language, derivational morphology*

INTRODUCTION

The research is on the English language morphology, that is, derivational morphology comprehension of the English language education study program's students. Furthermore, it is professed that the teacher's effort to strengthen students' initial conception of the English language derivational morphology is sufficient, and the students' reception of the English language derivational morphology is reasonable. Nevertheless, it needs further research to prove whether sufficient effort and reasonable reception link to each other. The importance of proving the relation between effort and reception is that the coverage of derivational morphology is appreciable. It includes the form, function, and meaning of the derivational morpheme. It is aimed to identify peculiar weaknesses of the three components of the derivational morpheme. The weaknesses can be of, for example, the meaning. Furthermore, the terminology used to describe the link between the effort and the reception is perception and achievement.

It is alternatively hypothesized that perception correlates with achievement. Meanwhile, the null hypothesis is that the two variables do not correlate. For this research, perception is what is claimed, and achievement is what is gained. The good correlation would be the better perception, the better achievement.

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However, it requires acceptance or rejection of hypothesis testing to determine whether perception and achievement correlate with each other. Moreover, it needs statistical measurement to stipulate the degree of the correlation (Glen, 2022a).

Structurally, derivational morphology is word formation constructed by employing the combination of a Free Morpheme (FM) and a Bound Morpheme (BM) (Dawson, Rastle, & Ricketts, 2021). The structure of complex words formed through derivational morphology is BM+FM, FM+BM, and BM+FM+BM. The element of FM is the base word, while the BM is the affix, consisting of an initial prefix, a final suffix, and a circumfix that is initial-final as a set. The FM can be of verbs, nouns, adjectives, and adverbs. The BM will maintain or change word class. In terms of part of speech, the BM is class-maintaining or class-changing. In addition, the BM will also indicate particular meanings depending on the FM it enters. So, it is obvious that the derivational morphology involving the FM and BM is word-formation processing through affixation. It means that this research is about the study of word structure or word grammar. The importance of discussing this word structure is to describe the complex word formation by involving free and bound forms.

The English language word is commonly comprehended as vocabulary, whether it is as a subject or as a text comprehension in a reading subject (Levesque, Breadmore, & Deacon, 2020). As a subject or text comprehension in reading, the vocabulary is taught in terms of mastery of covering spelling, pronunciation, synonyms, antonyms, and meaning (Crosson et al., 2020). Nevertheless, the meaning in English language vocabulary is understood as translation or equivalence, although it is one element in morphology besides form and function (Šemelík, 2020). Yet, the linguistic feature of morphological word meaning is not translation or equivalence. It is one element of morphology (Zhang & Zou, 2020).

The suggestion is that the morphological word formation covering form and meaning should have been comprehended and taken place in reading (Oliveira et al., 2020). Furthermore, it is important to consider it because for broader implications and context, the use of morphology may be extended to the skill of writing (Shuster & Miozzo, 2018) and speaking (Xu et al., 2018). Therefore, the research aims to comprehend the English language morphology in terms of words with their forms and meanings to support the linguistics features comprehension of the language skills.

Morphology is a branch of linguistics studying word formation that comprises an aspect of the process, form, function, and meaning (Finley, 2018). In terms of process, it includes affixation, coining, compounding, eponym, blend, conversion, acronym, clipping, backformation, and reduplication (Ološtiak & Vojteková, 2021). Affixation, as an issue discussed in this research, is even still too wide to study by students, for it contains dimensions of derivational and inflectional processes (Eskander, Klavans, & Muresan, 2019). The derivational process involves affixes consisting of prefixes, suffixes, and circumfixes (Reichelt, 2020), while the inflectional process incorporates words of the same lexeme with different grammatical categories (Davies & Embick, 2020). Some inflectional suffixes of the same lexeme with different grammatical categories are -ing, -d, -ed, -er, -est, -s, and -es (Auclair-Ouellet et al., 2019). Since affixation is derivational and inflectional, and it is too large to comprise, the research is restricted to the derivational process as its limited scope.

Word is of function and content and is simplex and complex. A function word is used to create a grammatical or structural relationship for the context of the content word. It is a necessary word for grammar (Denham & Lobeck, 2018). A content word is a word that has meaning, and its class is open as part of speech that is of verb, noun, adjective, and adverb. It is an information and meaning word (Khamis & Musa, 2020). In morphology, word formation deals with content and complex word by assigning morphemes to simplex ones. Meaning to say, the morpheme is an element attached to simplex or simple word to form a complex word.

In the study of the word, sometimes it is confusing to distinguish the word and the morpheme because the two are alike (Klimek et al., 2020). By referring to simplex terminology, it is understood that the word morpheme is simplex, consisting of only one part with no affix added (Lane, Gutlohn, & van Dijk, 2019). The word that is morpheme is better known as a free morpheme. It is also known as a root or base word. Since there is a free morpheme that is base, a bound morpheme is added to the base to form a complex word (Coch, Hua, & Landers-Nelson, 2020). Later, the free morpheme for discussion in this research is just called root or base, and the bound morpheme is just called a morpheme.

A derivational morpheme is one important element of word formation in the English language. It is a bound morpheme derived from a complex word (Das & Barbora, 2020). Another important element is a free morpheme. It is a root or base word to which the bound morpheme is attached. The structure of word formation for affixal words is the combination of a free and bound morpheme, and for compounding, the combination is a free and free morpheme (Ariskina, 2020). Since this research focuses on derivational word formation, the process of morphology to discuss is a bound morpheme that is affixed, comprising prefixes, suffixes, and circumfixes (Greshchuk, 2019). The bound morpheme is an affix that cannot stand alone as a word. It needs a free morpheme to affix with. In terms of its position in the complex word, the prefix is initial, and the suffix is final, whereas the circumfix is initial and final as a set (Carden et al., 2019).

The teaching of EFL (English as a Foreign Language) to students is not merely grammar but linguistics as well. It is to position students as linguistic and social experts (Denham, 2020). If the teaching of linguistics has not yet achieved the expertise for the

students, it is at least to introduce them to the awareness of linguistics, especially morphology (Aziz, Daud, & Ismar, 2019). Therefore, the research investigates how the students have been introduced to linguistic awareness by correlating perception and achievement of the English language derivational morphology.

In English language morphology, the form of morpheme is of sound or phoneme sound and syllable (Manova et al., 2020). The sound is a combination of vowel and vowel as found in morpheme {-ee}; a combination of consonant and consonant as in morpheme {-th}; and can simply be of a single vowel like morpheme {-i} or single consonant like morpheme {-n}. Example of these morphemes is found in the words <payee>, <growth>, <Iraqi>, and <Malaysian>. Furthermore, the syllable form of morpheme, for instance, is {pre-}, {im-}, {ir-}, {-hood}, and {-ment}. The instance of the syllable form of morpheme is discovered in the English language words <preview>, <impolite>, <irregular>, <sisterhood>, and <development>.

In the derivational word formation process, the morpheme assigned to the base is the affix. In other words, the affix is used to form a derivative word, the derived complex word. It is of prefix, suffix, and circumfix. Attaching an affix to the base will consequently maintain or change the word part of speech or word class. So, the affix functions as class-maintaining or class-changing. The function of a particular affix can be both class-maintaining and class-changing, depending on the word class of the base the affix enters. In addition, the affix can only be class-maintaining or class-changing.

In terms of the prefix, for instance, it is identified that the English language only has five prefixes that are class-changing, while the rest are class-maintaining (Dupanović, 2019). Nevertheless, once again, the number of the class-changing can be more, depending on the class or part of speech of the base word the prefixes enter. Particular English language words may lexically have more than one class. Furthermore, the English language suffix -some, is studied in terms of formation rule, meaning, productivity, and orthographic properties (Smith, 2020). The suffix is less used, and its rule for derivative word formation is affixation. Its example usage is /fearsome/ and / winsome/. Moreover, one example of an English language circumfix study is en-en which is attached to adjectives (Klégr, 2018). This circumfix en-en forms verb from adjective as in complex word <enlighten> and establishes verb from verb as in derivative word <enliven>. The function of this circumfix morpheme is class-changing and class-maintaining. Its affixation changes the adjective into a verb and maintains the verb remaining as a verb.

The study of the word in morphology is the relation of form and meaning. The word form is of phonology and orthography, while the word meaning is lexical and grammatical (Dawson, Rastle, & Ricketts, 2021). It is a form that signifies meaning. The morpheme {un-} as a form found in derivative word <unhappy>, for instance, signifies the meaning 'not'; or the morpheme {-er} as a form found in derivative word <player> that means 'agentive' or 'instrument'. An example in the inflectional morphology to mention is the different word of the same lexeme as in <butterflies> in which the morpheme {-es} signifies the meaning 'number' or 'plurality'.

Comprehension is the ability of a person to fully understand something based on the situation, concept, and facts (Nengsih, 2018). Moreover, comprehension is literal and inferential (Kamagi, 2020). For the research, the comprehension is on the ability of students to literally and inferentially understand the concept and fact of affixation involving form, meaning, and function of affixes as bound morphemes used to a derivative word or complex word-formation process. Comprehension encompasses the perception of the English language derivational morphology and its achievement as an indicator of learning success or mastery.

The problem posed for the research is whether perception and achievement correlate with each other. Perception is the claim or retrieval to assemble, recognize, and interpret sensory information to afford description and understanding of learning, recall, and attention, in this case, is of derivational morphology perception. Meanwhile, achievement is an attainment that has successfully been gained with effort or a process of succeeding gain with effort, and it refers to a derivational morphology test score. For this research, the perception is students' claim on questionnaire options of the English language derivational morphology, and the achievement is students' test result gain of the English language derivational morphology lesson measurement. The premise is that the better perception, the better achievement.

METHODS

The type of the research is correlational, that is, perception and achievement of students' comprehension of the English language derivational morphology. Correlational research correlates two or more variables (Patten & Galvan, 2019). Then, the research intends to examine the correlation between the perception and achievement variables and their correlational degree. Furthermore, the data of the research is primary and secondary. The primary data are the one that has not yet been collected. Meanwhile, the secondary data are the one that is already collected, the one that is not from first-hand sources (Glen, 2022a).

The primary data are the result of the survey, and the secondary data are the result of the summative test, the mid-semester test that dealt with derivational morphology, downloaded as a document from Academic Information System (AIS). Hence, the data are descriptive and parametric (Winter, 2019). The descriptive or non-parametric data are collected by survey. Moreover, the parametric data are gathered

from the AIS of the Teacher Training and Education Faculty of Tanjungpura University. The data collection technique is a survey and documentary (Lopez-Pinzón, Ramirez-Contreras, & Vargas-Orozco, 2021). The survey conducted for the research is cross-sectional, and the document for secondary data is downloaded document taken from the AIS. The tool of data collection, referring to Iwaniec (2020), is a questionnaire and downloaded score of the mid-semester test of the English Morphology subject in the Academic Year 2019/2020.

The survey is administered by distributing 18 questionnaire statements to 62 respondents of the third-semester students of the English Language Education Study Program of Tanjungpura University who are taking the subject. A respondent is invited and selected to respond to the question, statement, or interview that is questioned. The questionnaire distributed for this research is a closed-ended statement of perception on the morphology of the English language derivational. The substance of the questionnaire comprises the form, function, and meaning of the English language affixes.

Option of the statement of the questionnaire, referring to (Müssig, Kubiak, & Egloff, 2021), is of four Likert scales with 25% intervals, indicating respectively the category of 'I really get it' as option 4, 'I get it' as option 3, 'I do not get it' as option 2, and 'I do not really get it' as option 1. The neutral option is not applied in the questionnaire, for it does not give an opinion of choice.

The perception index is computed using the index percentage equation, where Σ Y is the total score of the option multiplied by the four Likert scales. The total score is the number of respondent students multiplied by the Likert scale option.

$$\text{Index} = \frac{\Sigma Y}{\text{Total score}} \text{ x } 100\ \% \qquad (1)$$

Table 1 shows the interpretation of the respondents' perception index and category on the English language derivational morphology.

Table 1 Perception Index and Category

Index	Category
75,01 % – 100,00 %	I really get it
50,01 % – 75,00 %	I get it
25,01 % – 50,00 %	I don't get it
00,00 % – 25,00 %	I don't really get it

Moreover, the respondent student's mean mid-test achievement score is calculated using the average or mean score. Σ X is the total score, while n is the number of respondent students.

$$\bar{x} = \frac{\Sigma X}{N} \qquad (2)$$

To interpret the mean score, Table 2 shows the mean score category.

Table 2 Mean Score Category

Mean score	Category
80,00 – 100,00	Excellent
70,00 – 79,99	Good
60,00 – 69,99	Fair
50,00 – 59,99	Poor
< 49,99	Bad

(Source: Glen, 2022b)

Furthermore, to find out the correlation between perception and achievement, data is analyzed using the following Pearson Product Moment Correlation formula, where r is the correlation coefficient, n is the number of respondent students, Σx is student respondent perception, Σy is student respondent achievement, and Σxy is the multiplied score of student respondent perception and student respondent achievement.

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n(\sum x^2) - (\sum x)^2]\,[n(\sum y^2) - (\sum y)^2]}} \qquad (3)$$

The null hypothesis (Ho) set for the research is that student respondents' perception of the English language derivational morphology does not correlate with the achievement. Meanwhile, the alternative hypothesis (Ha) is that perception correlates with the achievement of the English language derivational morphology.

By 5% of a significant degree of coefficient table or r-table, that is 0,297; the Ho will be accepted if the r-calculation is < r-table or the Ha will be accepted if the r-calculation is > r-table. To interpret the correlation, Table 3 shows the correlation coefficient interpretation.

Table 3 Correlation Coefficient Interpretation

Coefficient	Interpretation
0,90 to 1,00	I really get it
(-0,90 to -1,00)	Very high positive (negative) correlation
0,70 to 0,90 (-0,70 to -0,90)	High positive (negative) correlation
0,50 to 0,70 (-0,50 to -0,70)	Moderate positive (negative) correlation
0,30 to 0,50 (-0,30 to -0,50)	Low positive (negative) correlation
0,00 to 0.30 (-0,00 to -0,30)	No or negligible correlation

(Source: Glen, 2022c)

To add more, the discussion on the result of data analysis covering the perception and achievement is elaborated both quantitatively and qualitatively by referring to the survey result and downloaded mid-test score. The discussion helps give meaning to the data collected and to draw conclusions.

RESULTS AND DISCUSSIONS

The finding of the research comprises the presentation of questionnaire results, the mid-test score downloaded from the AIS and its mean score calculation, and the correlation of the perception and achievement of the English language derivational morphology. The questionnaire result and score applying a four-Likert scale are laid down in Table 4.

Table 4 Questionnaire Result and Score

Likert scale option	Option score	Score
4	474	1.896
3	458	1.374
2	151	302
1	34	34
Total score		**3606**

Based on Table 4, the perception index on the morphology of the English language derivational is 52,53%. The category of the perception index, based on Table 1 is 'I get it' and is situated in the range of 50,01%–75,00%. Furthermore, the perception index is calculated using the perception index percentage. The calculation is as follows:

$$\text{Index} = \frac{1.896}{3.606} \times 100\ \%$$

$$\text{Index} = 52{,}53\ \%$$

The perception index on the English language derivational morphology in respect is 38,15% on scale 4, 52,53% on scale 3, 8,38 on scale 2, and 0,94 on scale 1. The student respondents' perception index on the English language derivational morphology is arranged in a four-Likert scale option, as seen in Figure 1.

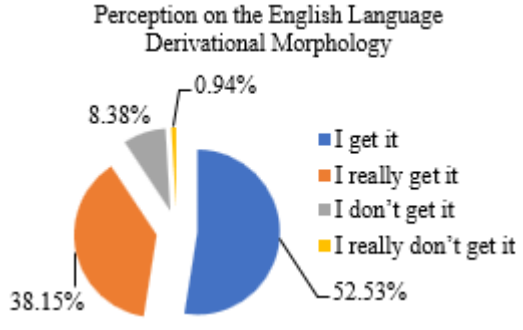

Figure 1 A Four-Likert Scale Perception Option

Figure 1 shows that the perception index of 52,53% is situated in the range of 50,01%-75,00%. The perception index is contributed from four-Likert scale options chosen by student respondents with the category of 'I get it'. The index and category are weak because they stand close to 50,01% instead of 75,00%.

Furthermore, the mid-test score is taken from the AIS, and its total score, total student respondents, and its mean score to represent achievement are arranged in Table 5.

Table 5 Mid Test Score, Total Score, and Mean Score

Initial	Score	Initial	Score	Initial	Score
PN	80	FS	80	OH	75
TS	75	KW	75	AK	80
IH	75	RH	75	RW	80
NA	75	PF	80	NU	80
VV	65	LW	75	FH	75
PR	70	RF	80	WO	70
IS	70	FG	80	RJ	80
AF	80	SA	80	EI	80
FB	70	BT	75	IA	80
MA	75	LI	75	RD	75
NV	70	MR	75	JS	80
SR	70	MR	80	YU	75
RD	70	AP	75	IA	75
TP	75	WA	80	WF	75
NS	75	CK	75	NU	75
AN	80	SA	80	AS	80
AN	75	RD	80	SY	75
AM	80	YO	75	AA	80
LM	75	AA	80	ZT	80
DP	75	CO	85	FE	75
MR	75	EF	80		
Total score = 4.740					
Mean score = 76,45					

Based on Table 5, it is informed that the student respondents are 62, and the total score of the mid-test of English Morphology Subject taken from the AIS is 4.740. By referring to Table 2, the mean score is classified into the 'good' category. The mean score is calculated by using the equation as:

$$\bar{x} = \frac{4.740}{62}$$

$$\bar{x} = 76{,}45$$

The calculation results indicate that the student respondents' achievement of the English language derivational morphology comprehension is 'good',

that is, by the range of 70,00-79,99. Moreover, the correlation between perception and achievement of the English language derivational morphology by the student respondents is calculated based on the Pearson Product Moment formula using the correlation function from MS Office 16 Excel. The computation is as follows:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n(\sum x^2) - (\sum x)^2]\,[n(\sum y^2) - (\sum y)^2]}}$$

r = -0,04365

The computation result signifies that the coefficient correlation is -0,04365, and its interpretation, according to Table 3, is 'negligible or no correlation'. The interpretation lies in the range of 0,00 to 0,30 (-0,00 to -0,30). It indicates that the relationship between the perception and achievement of the student respondents on the comprehension of the English language derivational morphology is negligible. However, it is assumed by the alternative hypothesis that there is a correlation, but the result of computation proves the inverse. In other words, the null hypothesis is accepted, and the alternative hypothesis is rejected, proven with -0,04365<0,297.

The English language derivational morphology is a morphological process to form derivative words involving English affixes. Since the concern of the research is the BM and FM, it deals with the form, function, and meaning of the affixes. In terms of form, it is stated in questionnaire number 6 that the example of phoneme sound or sound is morpheme {a-} and {-y}, as found in words <asleep>, <amoral>, <asymmetric>, <awake>, <abide>, <alike>, <arise>, <windy>, <dusty>, <freaky>, <classy>, <handy>, <gloomy> and <sandy>. The total calculation of the four-Likert scale option chosen respectively was 68-point (36,96%), 84-point (45,65%), 31-point (16,85%), and 1-point (0,05%). All examples in the statement are, in fact, correct, but the respondents chose with less confidence for option 4.

Respondents' high confidence in choice is indicated in the case of a function of morpheme in questionnaires number 14 and 15. It states that the circumfix {mis-ment} as found in the word <mismanagement>, while the prefix {en-} as found in the word <endanger> and <enlarge> is class-changing, but the prefix {re-} as found in the word <relocate>, <rearrange>, and <rewrite> is class-maintaining. The circumfix {mis-ment} changes the verb into a noun class, and so does the prefix {en-}. It changes adjectives into verb classes. The prefix {re-} functions to maintain word class. It maintains the verb to stay as a verb.

Nevertheless, a particular affix can be both class-maintaining and class-changing, depending on the word class the affix derives, as found in the word <awake>. The prefix {a-} is both class-changing and class-maintaining since the derived word <awake> is both an adjective and verb. Moreover, the calculation of the option for questionnaire number 14 in order is 116-point (57,71%), 63-point (31,34%), 20-point (9,95%), and 2-point (1%). The respondents' highest confidence in choosing is indicated in questionnaire number 15 with option calculation with respect is 124-point (59,62%), 75-point (36,06%), 6-point (2,88%), and 3-point (1,44%).

In terms of meaning, the example provided in the questionnaire to choose by respondents is the morpheme {auto-} as in word <automobile> that indicates 'by itself', morpheme {-or} as in word <ventilator> that signifies 'instrument', and morpheme {mis-ment} as in word <mismanagement> that denoting 'process of' or 'result of'. The calculation quality of option covering the meaning of morpheme {mis-ment} in word <mismanagement> as in questionnaire number 18 is respectively 68-point (38,96%), 90-point (48,91%), 22-point (11,96%), and 4-point (2,17%).

CONCLUSIONS

The result of the correlation that is negligible is an important indication to state that what is claimed by choosing the survey option is not in linear relation with what is gained, as shown by the mid-semester test achievement.

The calculation of the result of the questionnaire survey representing the form, function, and meaning of the English language affix morpheme shows that the form and meaning are mostly chosen by option 3 of the 4-Likert scale, while the function is mostly chosen by option 4 of the scale. Despite the fact of finding that the correlation between perception and achievement is negligible, the survey result exposes that the perception, in general, is by the category of 'I get it'. In addition, the achievement of the English language derivational morphology comprehension, that is, the mid-test, as downloaded from the AIS, is categorized as 'good'.

This research implies that student respondents' comprehension of the English language derivational morphology is understandable in terms of perception and is reachable in terms of achievement. The comprehension discovered through this research complies form, function, and meaning of the English language derivational affixes. It indicates that learning English derivational morphology is affordable for Indonesian EFL learners. Finally, future research on the English language inflectional morphology may be suggested since inflectional is another complex word formation process.

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