

Original Paper

An Analysis of Reading Miscues in Three Genres of English Texts for Junior High School Students

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Received: July 8, 2019

Accepted: July 23, 2019

Online Published: August 8, 2019

doi:10.22158/selt.v7n3p308

URL: <http://dx.doi.org/10.22158/selt.v7n3p308>

Abstract

The purpose of the present research is to compare and analyze eighth graders' English reading performance in the three different genres, including the Comparison/Contrast, the Process, and the Cause/Effect by reading miscue analysis. After the individual interview, the participants read the three different texts, and then retell the three texts. At last, through the reading miscue inventory (Goodman, Watson, & Burke, 1987), the participants' English oral reading miscues and retelling in these three different genres are analyzed and compared.

According to the repeated measure ANOVA, there are two significant differences in the reading miscues in these three genres for the participants, including the meaning construction and the grammatical relationship of reading miscues. In terms of the retelling scores in these three different genres, there are also significant differences among these three different genres. On the other hand, according to the descriptive statistics, the participants get the best performance in the Cause/Effect, but they get the lowest retelling scores in the Comparison/Contrast.

Keywords

reading miscue, genre, retelling

1. Introduction

Reading is a cognitive activity with internal information processing. Therefore, it may be difficult to observe, measure, and analyze a reading process (Alderson, 2000). Thanks to the reading miscue inventory, a reader's reading strength and weakness can be diagnosed and then evaluated. According to Goodman (1970), reading miscue inventory "can gain insight into the development of reading competence and the control of underlying psycholinguistic process by reading miscues" (Goodman, 1970, p. 160). So the reading miscue inventory can help researchers know a reader's reading process and performance.

Many studies' topic is related to reading miscue. In her study, Laing (2002), researched English reading miscues of native school-age children, and she wanted to know their reading miscues' types for improving children's language-learning disorders. However, her study focused on native speakers, so the study may not suit to students in Taiwan. There are also some research on reading miscues in Taiwan. In his study, Wang (2007) compared the differences of English reading miscues between recommended and non-recommended college students. After the data analysis, Wang found that recommended EFL college students' reading comprehension performance of two selected texts was better than non-recommended ones, but she did not assess the reading performances of English texts in different genres for teenage readers. In her study, Chen (2016), collected and compared senior high school students' English reading miscues of three different genres. But she did not focus on junior high school students' English reading miscues. Thus, this issue needs further research.

The purpose of the study is to investigate the eighth graders' reading process during reading three different genres' texts. Reading miscue analysis research can help researchers and even teachers to understand the English students' reading process, weakness, and strength (Goodman, 1973). Accordingly, there are four purposes in this study:

1. To get an insight into the students' reading backgrounds,
2. To explore the reading miscue in three English texts,
3. To compare the students' retelling in three English texts, and
4. To explore the students' English reading difficulties and suggestions for the three English texts.

There are three significances in this study. First, the variable of the textual genres may or may not have effects on the participants' English reading performance. So the study results may offer teachers some references to make their choice of genres of English textbooks for students. Second, the strengths and weaknesses of the English reading performance of the participants were assessed. Hopefully, they may make the best use of their reading strengths and find some strategies to deal with their reading weaknesses. Last but not least, the result of the study may give the English textbooks' publishers some references to compare English textbooks with many linguistic cues, including graphic, phonemic, syntactic, and semantic ones.

There are three limitations in the study. Firstly, the sample size of this study is small. Only 27 participants in southern Taiwan were recruited in this study. Hence, the results of the study may not represent those of all junior high school students in all Taiwan. Secondly, some issues were challenged, such as the diagnosis of the poor English pronunciation and limited time for the reading interval. Specially, because the reading miscue analysis inventory was designed for native English speakers originally, the students' "mis-articulations are marked on the typescript but not coded" (Goodman, 1987, p. 58). Thirdly, the study chose only three texts in three different genres, including Comparison/contrast, Process, and Cause/effect, so the result of the research might not be generalized to those of texts in the other genres.

2. Method

2.1 Participants

In this study, 27 eighth graders enrolled in Kaohsiung Municipal Nan-zih Junior High School (NZJHS) in southern Taiwan were recruited. Particularly, the participants were in the similar English proficiency. To control for the effect of English proficiency, the researcher collected the participants' scores in their English term exam in their school in the semester, 2018. In order to further explore the students' English reading background, the researcher interviewed each participant with a reading interview form (Goodman, Watson, & Burke, 1987). According to Normal Distribution, all classes in NZJHS included high achievers, intermediate achievers, and lower achievers. To get rid of the research bias on the reading ability of the participants, all the participants were recruited by the scores of English tests in the final term exam of NZJHS.

2.2 Instruments

To collect data for this study, the researcher applied eight instruments, as follows:

1. A reading interview form,
2. Three different genres of the reading selections,
3. Typescripts,
4. A reading miscue coding form,
5. A reader profile,
6. Three retelling guides,
7. A Retrospect Form, and
8. MP3 files.

Since each of the instruments has a unique function for this study, they were further described in the following sections.

2.2.1 A Reading Interview Form

Through a reading interview form (Goodman, Watson, & Burke, 1987), the researcher knew more about the participants' English background and reading strategies. Moreover, the researcher utilized the reading interview form to compare the relationship between the participants' English reading miscues and their reading histories in English. During the interviews, the researcher asked questions in Chinese and English to reduce the language anxiety of the interviewees.

2.2.2 Three Reading Selections

In order not to collect the participants' strengths and weaknesses of English reading, three reading selections were produced to measure the readability of the three selected texts and the participants' English textbooks, Fry's readability formula (1991) was used. According to the results of Fry's readability formula, the readability of the three English texts' was on the fourth, the fifth and the sixth levels and that of the participants' English textbook was on the fifth level. So the readabilities of the three selected texts were a little bit easier or a little bit more difficult than that of the participants' English textbook.

In addition, the genres of the three reading selections include (a) comparison/contrast, (b) process, and (c) cause/effect genres. The distribution of these three reading texts in three different genres was presented in Table 1.

Table 1. The Distribution of Three English Reading Texts by Genre

Genre	Comparison/Contrast	Process	Cause/Effect
Text	<i>Inventions: Then and Now</i>	<i>How Is Honey Made</i>	<i>Trouble in the Ocean</i>
Fry's readability	6th	5th	4th
Source	https://www.readworks.org/article/Inventions-Then-and-Now/b7e90e33-2066-47ca-905d-25707927d247#!articleTab:content/	https://www.readworks.org/article/The-Buzz-About-Honey/806faee7-0380-49a9-a5a4-c94a0f050ec7#!articleTab:content/	https://www.readworks.org/article/Trouble-in-the-Ocean/53ee9c4e-086e-4223-8a40-4ba5de53fb8c9#!articleTab:content/contentSection:content/

2.2.3 Typescripts

According to Goodman et al. (1987) reading miscue analysis inventory, typescripts of the original texts were applied to help a researcher to mark the reading miscues which were used to interpret participants' use of linguistic cueing systems in their reading processes. In the present study, the researcher designed the typescript of each selection for data analysis.

2.2.4 A Reading Miscue Coding Form

The reading miscue coding forms were utilized to record the participants' reading miscues. Through this form represented, the researcher compared and analyzed the participants' English reading and retelling of the three different genres. The reading miscue coding form contains six items as follows:

1. Syntactic acceptability,
2. Semantic acceptability,
3. Meaning change,
4. Correction,
5. Graphic similarity, and
6. Sound similarity.

The researcher adopted Goodman's (1987) taxonomy to judge and decide each part of the reading miscues carefully for recognizing all participants' weakness and strength in reading performance, and participants' reading strategies. Therefore, the reading miscue coding form were applied to calculate and compare the reading miscues for the participants.

2.2.5 A Reader Profile

In the present study, the reader profile was formed according to Goodman and Burke's (1987) criteria, which provided important information of the participants' reading miscue analysis. Though the

investigation of a reader profile, it helped the researcher know how the reading strategies were applied by the participants in reading processes. The researcher further understood how the participants read the texts and utilized the information from the texts to adjust their semantic and syntactic acceptability.

There are seven items in the reader profile:

1. The reader's background information,
2. The percentages of the meaning construction,
3. Grammatical relationships and graphic/sound relationships,
4. The reader's retelling score,
5. The MPHW,
6. The repeated miscues across the texts, and
7. The researcher's comments on the reading miscues of the subject.

Based on Goodman et al. (1987), a reader profile presents the important patterns and percentages from the coding form. By the reader profile, the researcher got more information about the participants' reading miscues.

In Item 2, the percentages of the meaning construction were all transcribed from the coding form. In Item 6, MPHW represented the number of reading miscues per 100 words of a text. In Item 7, the repeated miscues across the texts, were independently recorded on the separate section for analyzing subjects' reading miscues across the three English reading texts. According to Goodman et al. (1987), there are two types of repeated miscues. The first type of miscues includes repeated and identical words, substitutional words, or omissions in the text. In that way, only the first miscue appearing needs to be coded on the coding form, and the rest miscues were coded on the reader profile. The second type of repeated miscue on the reader profile includes various responses to the same word or phrase. In this case, each type of miscues was coded in the coding form.

2.2.6 Three Retelling Guides

The researcher noted and checked the participants' English reading comprehension of the three selections in different genres by referring to the retelling guides. There are three parts in the retelling guide according to Goodman's (1987) criteria, including (a) major concepts, and (b) specific information. Moreover, the text was assigned 40 points for major concept, and 60 points for specific information. The major concepts were the main idea or theme of the texts, including the wh-questions (i.e., characters, major event). The specific information part included the reading texts' details, for example, backgrounds of the text or the subsidiary characters. Based on Goodman's (1987) notion, when the participants change language, themes, plots, events or generalizations, the researcher should record and assess it accordingly. Therefore, the retelling guides were utilized to remind the researcher of the texts content more accurately.

2.2.7 A Retrospect Form

The research asked two open-ended questions after the participants' reading and retelling the three texts. The participants were asked to compare and then choose the most difficult text to read and understand.

Then the researcher asked the participants to share their thoughts and reasons about these three different texts. Finally, the participants made at least two suggestions for these three texts.

2.3 Procedures

There are four major procedures in this study, including (a) a pilot study, (b) revising, (c) the formal study, and (d) data analysis. The study procedures are presented in Figure 1.

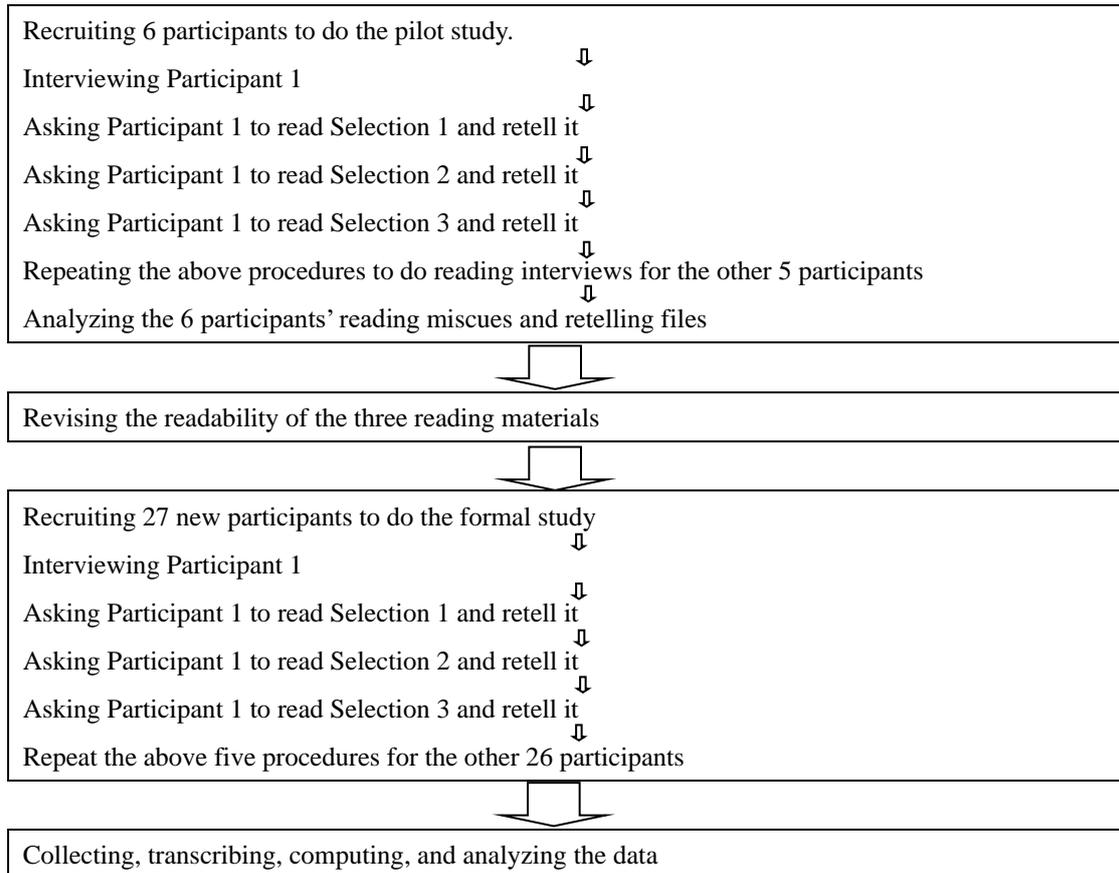


Figure 1. The Flow Chart of the Study Procedures

In the pilot study, six eighth-grade interviewees were recruited to do interviews, to read, and to retell the reading texts. Furthermore, the researcher revised the readability of the three selections for this study.

In the formal study, 27 new participants were recruited. The participant was interviewed for five minutes. Then he read selection 1 for five minutes and retold it for the other five minutes. Then repeat the above procedures for reading selections 2 and 3 for twenty minutes in sum. In total, 35 minutes were spent in a reading interview for each participant. Additionally, each interview and retelling of each participant was conducted in the library in NZJHS at 12:35 to 13:10.

After all participants finished the interviews, the researcher collected and transcribed all the oral reading miscues. Next, she computed and analyzed all the data of the participants.

2.4 Data Analysis

The data were analyzed qualitatively and quantitatively in this study. Through the reading interview forms, the researcher transcribed and analyzed the participants' reading background, habits, strategy, reading, and retelling. These results helped interpret the courses of the student English reading processes and behaviors clearly. In particular, the researcher analyzed the reading miscues and the retelling scores of the participants by the repeated measure ANOVA to find the significant differences.

3. Result

3.1 Comparison of Reading Background for the Participants

In this section, the reading backgrounds of the participants are explored in order to understand their English reading. The researcher collected the participants' information by Goodman, Watson & Burke's reading interview form. There are five focuses in the reading interview form, including the participants' (a) favorite English texts, (b) difficulties in reading English texts, (c) solving the problems related to the difficulties of reading texts in English, (d) recommended good readers, and (e) tips for becoming good readers.

With regard to the participants' favorite texts, most of the participants prefer the Cause/Effect genre because this kind of texts could arouse their curiosity and then make them concentrate on the texts. Additionally, some participants would expect and try to guess the effect of the texts. However, some other participants prefer the Process genre because they think that they can learn something they want to do through the texts of the Process genres. That is, the participants regard the Process genre as a great tool to help them solve problems or improve their skills in daily life.

As to the difficulties in reading English texts, most of the participants consider that the two main causes are the insufficiency of English vocabulary and the fragmentary knowledge of English grammar. In order to solve the problems, most of the participants would try to guess or infer what the text was about by trying to find the contextual clues or some words they have already known. If they are allowed to use cellphones, they may search and check the definition of the unfamiliar words on the cellphones, and they also ask their peers or teachers for help. Chern (1994) also claimed that EFL and ESL learners tend to look up dictionaries when they encounter unfamiliar words or phrases.

With reference to the recommended good readers, most of the participants regard their friends, classmates, and parents as good readers. In the matter of the tips for becoming good readers, most of the participants express that good English readers tend to read English texts regularly, and ask the advanced peers or teachers to get some learning skills or strategies. In terms of the participants' English reading difficulties, they can be attributed to two main causes, including the insufficiency of vocabulary and the fragmentary knowledge of grammar. To deal with the reading difficulties, participants tend to guess or infer the meaning by the contextual clues or some words they have already known, searching the definition of the unfamiliar words on the Internet, or asking their peers or teachers for help.

3.2 Comparison of the Reading Miscues in Three English Texts for the Participants

By the participants' English reading profile, the researcher records the participants' reading miscues and then analyzes their reading miscues. The left column of the reading profile form contains meaning construction, grammatical relationships, graphic and sound relations, and retelling subtitles. The mean scores of the reading miscues are computed on the basis of the repeated measure ANOVA in Table 2.

Table 2. The Descriptive Statistics of the Reading Miscues in Three English Texts for the Participants

		<i>N</i>	<i>M</i>	<i>SD</i>
Meaning construction	Comparison/Contrast	27	36.89	1.78
	Process	27	52.26	1.89
	Cause/Effect	27	56.89	2.50
Graphic similarity	Comparison/Contrast	27	78.78	12.98
	Process	27	77.85	12.35
	Cause/Effect	27	85.19	12.47
Phonemic similarity	Comparison/Contrast	27	76.30	14.92
	Process	27	80.19	13.85
	Cause/Effect	27	83.93	11.27
Grammatical relationship	Comparison/Contrast	27	47.70	9.82
	Process	27	69.44	9.28
	Cause/Effect	27	56.37	12.48

Note. N: Numbers; M: Mean score; SD: Standard Deviation.

In particular, on the basis of the repeated measure ANOVA in Table 3, there are two significant differences because their p-values are less than .001, including (a) meaning construction and (b) grammatical relationship reading miscues in the three English texts. Thus the two significant differences of meaning construction and grammatical relationship reading miscues are further discussed as follows.

Table 3. The Repeated Measure ANOVA Results of the Reading Miscues in the Three English Texts for the Participants

		<i>SS</i>	<i>df</i>	<i>F</i>	<i>p</i>	pairwise comparison
Meaning construction	Subject	4480.99	26			M1 < M2
	Text	5919.14	2	33.23	< .001	M1 < M3
	Total	15031.65	80			
Graphic similarity	Subject	861.12	26			
	Text	12384.11	2	2.72	.08	
	Total	13245.23	80			
Phonemic similarity	Subject	778.33	26			
	Text	12830.32	2	2.09	.10	
	Total	13608.65	80			
Grammatical relationship	Subject	1622.40	26			G1 < G2
	Text	4500.84	2	47.36	< .001	G1 < G3 G3 < G2
	Total	8594.40	80			

Note. M: Meaning construction; G: Grammatical relationship; 1: the Comparison/contrast; 2: the Process; 3: the Cause/effect

Concerning the reading miscues of meaning construction, it shows that the equivalent degree of the texts' contextual meaning or main ideas between the readers and the author. In Table 2, there is a significant difference about the reading miscues of meaning construction in Comparison/Contrast (37%), Process (52%), and Cause/Effect (57%) genres. It is inferred that most of the participants could get the contextual meaning from the authors of the Process and the Cause/Effect genres. However, it is harder for the participants to construct the meanings of words and phrases in the Comparison/Contrast genre.

According to Table 3, the repeated measure ANOVA analysis shows that the meaning construction reading miscues are significantly different in the Comparison/Contrast and the Process as well as the Comparison/Contrast and the Cause/Effect. However, there is no any difference in the Process and the Cause/Effect in the meaning construction reading miscues.

Furthermore, there are different types of reading miscues are exemplified below in meaning construction of the three genres.

3.2.1 No Loss

According to Goodman (1987), no loss means that the reading miscues present no loss in meaning construction. It is exemplified as follows in the (a) Comparison/Contrast, the (b) Process, and the (c) Cause/Effect texts from the participants.

distance

Example 1: Today's airplanes can travel long distances. (S6)

Honeycomb

Example 2: Honeycombs are made with beeswax. (S4)

pound

Example 3: It can weigh up to 440 pounds. (S11)

According to the above examples, this kind of reading miscues is semantically acceptable, but the contextual meaning does not change. Thus these miscues are considered as the miscues of no loss. With respect to the Comparison/Contrast genre, S6 substitutes *distances* with *distance*, which could be inferred that the participant encounters difficulty to pronounce *-ce* and *-s* sequentially. In terms of the Process text, S4 substitutes *honeycombs* with *honeycomb*, which presents that the participant neglects the rule of plural nouns in the context. As to the Cause/Effect genre, S11 replaces *pounds* with *pound*, which indicates that the participant may is not sure whether the noun is countable or not. Moreover, this would not influence the participant to comprehend the text. The example of S11 shows that the reading miscues of no loss of meaning construction belong to similar forms of miscues. This conclusion is in line with Ellis' (1997) research finding that language learners were influenced by their first language (L1). For example, there are not inflectional variable rules and the concept of affixes in Chinese. Therefore, the participants in the present research tended to be affected by their L1, the Chinese language, and then the type of reading miscues are produced.

3.2.2 Partial Loss

According to Goodman (1987), partial loss means that the reading miscues present partial loss in meaning construction. It is exemplified as follows in the (a) Comparison/Contrast, the (b) Process, and the (c) Cause/Effect texts from the participants.

Telephones

Example 4: Cell phones let people talk all over the world. (S1)

they

Example 5: That is wax bees make from their bodies. (S15)

danger

Example 6: Blue whales are endangered. (S10)

According to the above examples, those reading miscues are semantically acceptable, and the contextual meaning has a little change. Thus these miscues are considered as the miscues of partial loss. In terms of the Comparison/Contrast genre, S1 replaces *cell phones* with *telephones*, which could be inferred that the participant used the similar word, *telephones*, to substitute the unfamiliar word, *cell phones*. Although these two words' definitions are partially relative, they are still different. Concerning the Process genre, S15 replaces *their* with *they*, which can be also inferred that the participant used the similar word, *they*, to substitute the unfamiliar word, *their*. Meanwhile, this example also shows that the participant is unfamiliar to possessive pronouns. Relating to the Cause/Effect genre, S10 substitutes *endangered* with *danger*, which is semantically acceptable, but has problems grammatically. According to these examples of the miscues of partial loss of meaning construction, the features of the miscues are

more similar between the Process and the Cause/Effect genres.

3.2.3 Loss

According to Goodman (1987), loss means that the reading miscues present loss in meaning construction. It is exemplified as follows in the (a) Comparison/Contrast, the (b) Process, and the (c) Cause/Effect texts from the participants.

\$ tivitions

Example 7: The last one is about televisions. (S8)

self

Example 8: ...honey takes from a flower to a grocery store shelf. (S21)

lift

Example 9: Only a few are left in the world. (S26)

According to the above examples, this kind of reading miscues is semantically unacceptable, and not correct. Thus these miscues are considered as the miscues of loss. In terms of the Comparison/Contrast genre, S8 substitutes *televisions* with *\$ tivitions*, which does not exist in English, so it does not make any sense. Using the symbol, \$, it means that it is meaningless in English. In terms of the Process genre, S21 substitutes *shelf* with *self*, which has similar graphic and phonic features; however, there is not any connection with the contextual meaning. As to the Cause/Effect text, S26 replaced *left* with *lift*, which could be inferred that the participant could use familiar word, lift, to replace the unfamiliar word, left, or the participant gets confused about the two words because the two words have similar graphic and sound features. In the loss reading miscues, the participants' performances are better and more similar in the Process and the Cause/Effect genres. The miscue in the Comparison/Contrast belongs to a non-word; on the contrary, the miscues in the Process and the Cause/Effect exist in English vocabulary. Accordingly, the participants make use of the semantic cueing system well while reading the Process and the Cause/Effect genres. It is easy for the participants to find out the main theme while reading the Process and the Cause/Effect genres such as the main steps in the Process genre, or the main cause, effect, and the connection in the Cause/Effect genres. However, most of the Comparison/Contrast genres contain various items which are hard for the participants to figure out which is the main point. Furthermore, when the participants encounter unfamiliar words, they would be more confused, so it is more difficult to comprehend the Comparison/Contrast text's content.

In addition, grammatical relationship is related to syntactical construction. In Table 2, there is a significant difference in grammatical relationship of reading miscues of the Comparison/Contrast (48%), the Process (69%), and the Cause/Effect texts (56%).

In Table 3, the repeated measure ANOVA analysis shows that the grammatical relationship reading miscues are significantly different in the Comparison/Contrast and the Process, the Comparison/Contrast and the Cause/Effect as well as the Process and the Cause/Effect. The results could be indicated that the participants performed better in grammatical skills or strategies while reading the Process than the Comparison/Contrast and the Cause/Effect. For further inference, the

Process genre has obvious format; therefore, it is easier for readers to grasp the form in the Process genre.

Moreover, there are different patterns of reading miscues in grammatical relationship. They are exemplified below in the three genres.

3.2.4 Strength

According to Goodman (1987), strength in the reading miscues presents strength in grammatical relationship. It is exemplified as follows in the (a) Comparison/Contrast, the (b) Process, and the (c) Cause/Effect texts from the participants.

show

Example 10: The screens showed pictures in black and white, and ... (S9)

flower

Example 11: Honeybees need flowers to make honey. (S2)

hurt

Example 12: Pollution hurts the turtles. (S10)

According to the above examples, this kind of reading miscues is syntactically and semantically acceptable and correct. Thus these miscues are considered as the miscues of strength. With respect to the Comparison/Contrast genre, S9 substitutes *showed* with *show*, which could be inferred that the participant knows the plural subject's verb with present tense that should not add *-s*, so it means that S9 has the kind of grammatical knowledge. As to the Process genre, S2 replaces *flowers* with *flower*, which shows that the participant does not add *-s* of the plural noun. However, the miscue does not affect the contextual meaning. In terms of the Cause/Effect genre, S10 substitutes *hurts* with *hurt*, which implies that the participant does not notice to add the singular *-s* at the end of the verb when the subject is singular, but this miscue does not influence the meaning of the context of the text.

According to these examples above, this type of miscues of strength in grammatical relationship in the three genres could provide researchers with the information how the participants use linguistic schemata while reading (Nation, 2001). Most participants or students tend to neglect adding *-s* form of plural nouns or singular verbs with present tense.

3.2.5 Partial Strength

According to Goodman (1987), partial strength in the reading miscues presents partial strength in grammatical relationship. It is exemplified as follows in the (a) Comparison/Contrast, the (b) Process, and the (c) Cause/Effect texts from the participants.

in

Example 13: Some can be hung on a wall. (S12)

onto

Example 14: That turns the nectar into thick and sticky honey. (S22)

in

Example 15: The green sea turtle lives on warm water. (S13)

According to the above examples, this kind of reading miscues is syntactically acceptable but not highly semantically acceptable. Thus these miscues are considered as the miscues of partial strength. As to the Comparison/Contrast genre, S12 substitutes *on* with *in*, which represents that the participant understands that the sentence need to put a preposition, but the participant gets confused about these two prepositions' meanings. Concerning the Process genre, S22 replaces *into* with *onto*, which indicates that the participant has a strong sense of the preposition knowledge in English, but they could not distinguish these two words because of their similar graphic and phonic similarities between these two prepositions. Finally, with reference to the Cause/Effect genre, S13 replaces *on* with *in*, which is similar to the Example 13.

3.2.6 Overcorrection

According to Goodman (1987), overcorrection in the reading miscues presents overcorrection in grammatical relationship. It is exemplified as follows in the (a) Comparison/Contrast, the (b) Process, and the (c) Cause/Effect texts from the participants.

didn't

Example 16: The first TVs did not have a remote control. (S13)

Firstly

Example 17: First, it's to collect the nectar. (S21)

law

Example 18: Special laws now protect blue whales. (S13)

According to the above examples, this kind of reading miscues is highly syntactically and semantically acceptable, so they do not need to be corrected it. However, the participant corrects or even overcorrects it. As to the Comparison/Contrast genre, S13 substitutes *did not* with *didn't*, which shows that the participant overcorrects it because both of phrases are fully syntactically and semantically acceptable. In terms of the Process genre, S21 replaces *first* with *firstly*; however, these two words are equal, so it can be inferred that the participant may not know that the word, *first*, could also be an adverb. With respect to the Cause/Effect genre, S13 replaces *laws* with *law*, which could be indicated that the participant could not distinguish countable nouns from uncountable nouns. According to Nation (2001), by observing the reading miscues of overcorrection in grammatical relationship, these participants favor to use their familiar words or phrases to substitute the unfamiliar words or phrases.

3.2.7 Weakness

According to Goodman (1987), weakness in the reading miscues presents weakness in grammatical relationship. It is exemplified as follows in the (a) Comparison/Contrast, the (b) Process, and the (c) Cause/Effect texts from the participants.

weird

Example 19: They have no wires, unlike earlier phones. (S24)

together

Example 20: Bees bring the gathered nectar back to the hive. (S24)

new

Example 21: Only a few are left in the world. (S7)

According to the above examples, this kind of reading miscues is not highly syntactically acceptable or semantically acceptable, and not correct. Thus these miscues are considered as the miscues of weakness. In terms of the Comparison/Contrast genre, S24 substitutes the noun *wires* with an adjective *weird*, which means that the participant does not pay attention to the contextual meaning, and violates the grammatical rules in English. As to the Process text, S24 substitutes the p.p. *gathered* with an adverb *together*, which shows that the participants may not be familiar to *gathered*. Thus the participant utilizes the familiar *together*. Moreover, these two words have similar graphic and phonic features. Concerning the Cause/Effect genre, S7 replaces *few* with an adjective *new*, which shows that the participant may not know the word *few*, or the participant gets confused these two words. In the above examples, it is inferred that most of the participants tend to rely on graphic and phonemic cueing system when they encounter unfamiliar words or phrases.

In conclusion, most participants are used to utilizing meaning cueing information and grammatical relationship while reading; additionally, most participants are accustomed to using graphic and phonemic cueing system to decode their unfamiliar vocabulary in their reading process. According to the results of the research, a large proportion of the participants get grammatical relationship miscues than meaning construction miscues during the process of reading these three texts. Likewise, Lu's (2010) and Chang's (2002) research findings show that in Taiwan, most readers have better performance related to grammatical relationship than meaning construction during reading texts in English. Furthermore, in the present research, the participants get the lowest distribution about the reading miscues of both grammatical relationship and meaning construction when reading the Comparison/Contrast genre. Thus the result could be indicated that most participants have more syntactical and semantic difficulties when reading the Comparison/Contrast genre than the Process and the Cause/Effect genres. Therefore, it is also inferred that the reading miscues of both grammatical relationship and meaning construction influence the participants' reading comprehension of the Comparison/Contrast genre least.

3.3 Comparison the Retelling in Three English Texts for the Participants

The retelling guides record and analyze the participants' retelling performance among these three genres. The content is divided into two sections, including (a) major concept, and (b) specific information. Besides, the total scores are 100 points in each retelling guide.

For further comparison, the mean scores of the retelling of the participants in the three English texts are computed in the descriptive statistics in Table 4. Specifically, on the basis of the repeated measure ANOVA analysis in Table 5, there are three significant differences, including the Comparison/Contrast (66%) and the Process (77%), the Comparison/Contrast and the Cause/Effect (84%), and the Process and the Cause/Effect.

Table 4. The Descriptive Statistics of the Retelling Scores in Three English Texts for the Participants

		<i>N</i>	<i>M</i>	<i>SD</i>
Retelling	Comparison/Contrast	27	66.26	9.92
	Process	27	77.07	6.34
	Cause/Effect	27	84.41	4.33

Note. N: Numbers; M: Mean scores; SD: Standard Deviation.

Table 5. The Repeated Measure ANOVA Results of the Retelling in the three English Texts for the Participants

		<i>SS</i>	<i>df</i>	<i>F</i>	<i>p</i>	pairwise comparison
Retelling	Subject	1622.40	26			Re1 < Re2
	Text	4500.84	2	47.36	< .001	Re1 < Re3 Re2 < Re3
	Total	8594.40	80			

Note. Re: Retelling; 1: the Comparison/contrast; 2: the Process; 3: the Cause/effect

The result shows that most participants get worse performances of retelling in the Comparison/Contrast genre than the Process and the Cause/Effect genres. In terms of the Comparison/Contrast genre, the author lists so many pairs of items to compare before and now, so it is more difficult for the participants to organize these pairs of items. Moreover, if encountering unfamiliar words, the participants would get more confused, and then this condition would obstruct the participants' reading comprehension. Thus it would be hard to retell the Comparison/Contrast genre successfully. As to the Process text, most participants could recognize the key words of this type of genre such as first, second, finally; therefore, it is easier for the participants to get the main steps. In addition, the core word of the Process genre *honey* is an important and obvious hint for the participants. That is the reason why the participants could get better scores than the Comparison/Contrast genre. In the matter of the Cause/Effect genre, the participants expressed that they are familiar to this kind of texts about the issue on ecological environments because this kind of issue appears very often in their English textbooks or tests. Thus the participants could be easier to get the main idea while they read the text. In other words, because the participants have the related prior background knowledge, they have better performances on English reading comprehension in the Cause/Effect genre than in the Comparison/Contrast and the Process genres. This finding corresponds with John's (2008) notion that genres could be socio-cognitive schemata. Genres of texts are related to certain contexts which reflect people's thoughts, values, convention in their discourse community. Based on Grabe (1996) and Bazerman (1997), culture and tradition can also present by genres of texts. For example, Chinese students have a chance to know

English culture (such as Easter holiday) by reading folk tales (such as narrative).

In her study, Zabrocky (1999) recruited 40 adults, including 20 old adults and 20 young adults (college students) from the United States. The purpose of the study was to compare the reading performance in the Expository and the Narrative. After the study results, all adults took more time to read the Expository. However, they recalled more information in the Narrative. In this study, it shows that the students had different performances in different kinds of genres, too.

3.4 Comparison the Difficulties and Suggestions for the Three English Texts

After the interview and retelling the three texts, the researcher collected each participant's responses by asking them two open-ended questions in the retrospect form, including their difficulties of reading the three texts, and their suggestions for the three texts.

With regard to the difficulties of reading the three texts, most participants consider that the Comparison/Contrast genre contain many unfamiliar words; additionally, the Comparison/Contrast genres lack linkage words, so it is difficult for them to find out the hint. Samuels and Kamil (1988) claimed that if a text contained a lot of unfamiliar vocabulary for readers, it would be difficult for readers to make predictions while they read. Especially, some participants in this study love to read the Comparison/Contrast genre in their free time because this type of texts can help them to make a choice in daily life. Concerning the Process genre, some participants think that this kind of genre presents the organization of apparent sequential arrangement. Therefore, this feature could help them to comprehend the text more easily. In respect of the Cause/Effect genre, most participants express that not only the topic but also the form of this kind of genre are familiar to them. Therefore, the Cause/Effect genre has the least difficulties for them to read.

In the matter of the suggestions for the three genres, most participants think that the Comparison/Contrast genres are insufficient in junior high school. However, this type of genre could improve their ability of thinking and analyzing. Most participants suggest that the English courses add more the Comparison/Contrast genres on the junior high school level. Second, after the participants retell the three texts, they consider that the Comparison/Contrast genres contain more unfamiliar words than the Process and the Cause/Effect. In particular, the form of the Process genres may repeat some key words related to the topic (such as *nectar*, *honeycomb*, and *hive* in the Process text in the present research). If this type of texts can provide more familiar words or related description and hint, the participants may improve their comprehension of the main theme. Finally, most participants feel that the ecological environmental topic is so common in junior high school, and even other subjects also contain this kind of issue, that they feel a little bored with reading this issue. Thus they express that the issues related to arts, the latest technology, and the important global events can be added in English courses in the future.

4. Discussion

By reading miscue analysis, researchers can observe and understand the participants' reading process further. Meanwhile, they can analyze and evaluate the participants' weaknesses and strengths in reading. The results of this study are presented and discussed as follows. First, the responses to the reading English interview present that the English reading backgrounds of the participants are similar. The researcher collected the participants' information by Goodman, Watson and Burke's reading interview form. There are five focuses in the reading interview form, including the participants' (a) favorite English texts, (b) difficulties in reading English texts, (c) solving the problems related to the difficulties of reading texts in English, (d) recommended good readers, and (e) tips for becoming good readers.

With regard to the participants' favorite texts, most of the participants favor the Cause/Effect genre because this kind of texts could arouse their curiosity and then make them concentrate on the texts. Additionally, some participants will expect and try to guess the effect of the texts. However, some other participants prefer the Process genre because they think that they can learn something they want to do through the texts of the Process genres. In terms of the participants' English reading difficulties, they can be attributed to two main causes, including the insufficiency of vocabulary and the fragmentary knowledge of grammar. To deal with the reading difficulties, participants tend to guess or infer the meaning by the contextual clues or some words they have already known, searching the definition of the unfamiliar words on the Internet, or asking their peers or teachers for help.

Second, according to the repeated measure ANOVA of the participants' reading miscues, there are two significant differences among these three genres, including the meaning construction and the grammatical relationship reading miscues. With regarding to the repeated measure ANOVA of the meaning construction reading miscues, there are significant differences between the Comparison/Contrast and the Process as well as between the Comparison/Contrast and the Cause/Effect. However, there is no significant difference between the Process and the Cause/Effect in the meaning construction reading miscues. It is inferred that the Process and the Cause/Effect have exact structure, such as the main steps in the Process texts, or the main cause, effect, and the connection in the Cause/Effect. Therefore, these two genres contain more obvious sign points, such as first, second, because and so to comprehend the main ideas for the participants. However, the Comparison/Contrast has various structures, so it is hard for the participants to get the main ideas while encountering unfamiliar words. With respect to the repeated measure ANOVA analysis of the grammatical relationship reading miscues, there is a significant difference among the Comparison/Contrast, the Process, and the Cause/Effect. It shows that the participants may apply different grammatical skills or strategies while reading the three genres because these three genres have unfamiliar structures. Besides, most participants get better performance on the Process than the Comparison/Contrast and the Cause/Effect. It is indicated that the Process has obvious sign points, such as the first step, the second step, and so on.

Third, according to the repeated measure ANOVA analysis of the retelling scores in these three

different genres, there are significant differences among these three different genres. It is indicated that different genres with different contents affect the participants' reading performance. The participants get the best performance in the Cause/Effect; on the contrary, they get the lowest retelling scores in the Comparison/Contrast. In regard to the Comparison/Contrast, the participants get confused about some pairs of items compared between now and then. Therefore, the text is hard for them to comprehend successfully. Concerning the Process, most participants can find out the key words, such as *first*, *second*, and *finally*. Therefore, it is easy for the participants to get the main steps. In terms of the Cause/Effect, many participants expressed that they often read this kind of article and discuss the issue of ecological environment in class. Therefore, they have abundant background knowledge, so it is easy for them to comprehend the Cause/Effect than the Comparison/Contrast and the Process.

Finally, the participants express their reading difficulties and make suggestions for the three genres. Concerning the difficulties of reading the three genres, most participants think that the Comparison/Contrast contains many unfamiliar words but lacks linkage words, so it is difficult for them to read. In particular, the form of the Process genres may repeat some key words related to the topic (such as *nectar*, *honeycomb*, and *hive* in the Process text in the present research). If this type of texts can provide more familiar words or related description and hint, the participants may improve their comprehension of the main theme more. In terms of the suggestions for the three genres, most participants consider that the English courses can increase the Comparison/Contrast texts in junior high school courses to improve their reading comprehension ability because this kind of texts is unfamiliar to them. At the same time, this type of genre can also improve their ability of thinking and analyzing. On the other hand, there are a lot of unfamiliar words in the Comparison/Contrast and the Process. To deal with, the participants suggest that the texts can increase familiar words or related description and sign points. With respect to the Cause/Effect, most participants suggest that English courses can increase new topics such as arts, the latest technology, and the important global events in the future in addition to the familiar topic on ecological environments protection.

4.1 Implications

Reading miscue analysis can help researchers to analyze and understand the participants' reading process, strengths and weaknesses. In this study, the researcher compares the differences and similarities of reading miscues' types among three genres in the present research. By the reading miscue analysis, the implications of teaching are presented. First, English teachers can take reading miscue analysis as a useful tool to observe and diagnose learners' reading problems and types while teaching reading. Learners can also make good use of the results of their reading miscues to find out appropriate reading strategies or skills to improve their reading ability. Second, learners' reading miscues can be recorded and categorized further. According to different features of reading miscues, miscues can be divided into several types, including meaning construction, grammatical relationship, graphic similarity, and phonemic similarity. Besides, the above four types can also be separated into different domains such as Loss, Partial Loss, or No Loss. Third, reading miscue analysis can diagnose

learners' strengths and weaknesses in English reading. Therefore, it is a supplemental assessment in reading comments.

4.2 Suggestions

This present study investigates and compares the similarities and differences in three different genres. However, there are still some limitations in this study. Thus the section would discuss and provide some suggestions for the future research. First, the present research selects only three genres, including the Contrast/Comparison, the Process, and the Cause/Effect. However, there are many kinds of genres in English; therefore, the researchers can apply other genres to investigate and analyze readers' reading miscues in the future research.

Second, the participants in this study are eighth graders. The future researchers can recruit other graders to record and explore their reading miscues. Through different types of participants, the researchers can further discuss and compare the similarities, differences, and even infer and find out the factors which influence the results.

Third, cross-raters also play important roles during the research of qualitative analysis. Because human beings are individually different, it is important to ask cross-raters to check and investigate again when researchers conduct the qualitative analysis. Thus in the future, researchers can invite cross-raters to conduct the qualitative analysis.

Acknowledgements

I would like to express my sincere appreciation to a large number of people because I complete the thesis with their help. First of all, I would like to appreciate to my advisor, Dr. Ye-Ling Chang, who guided and encouraged me so that I could go through the process of writing my thesis.

I would like to express my gratitude to Dr. Jin-Tang Tu, who helped me to understand the important knowledge of statistics, and led me to analyze the statistics in my thesis. My acknowledgement would also be extended to Dr. Ming-Tzu Liao, Dr. Yih-Fan Chang, and Dr. Li-Hung Chang for their constructive comments and suggestions on the thesis in my research proposal and oral examination. Especially, my gratitude is given to the teachers and students in Kaohsiung Municipal Nan-zih Junior High School (NZJHS) for the assistance of data collection.

My devout gratitude goes to my family and my friends of the TESOL track in the NKNU. They gave me supports and encouragements during writing the thesis. I am thankful for their unselfish love. At last, I am deeply indebted to all the people who care about me, help me to write the thesis, are thoughtful and supportive to me in my academic and research journey.

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