

CHAPTER IV

FINDINGS AND DISCUSSION

In this chapter, the researcher presents the results of data obtained from the analysis of the English textbook "Student's Book: My Next Word for Elementary School Grade 1", a book issued by the Minister of Education, Culture, and Research. This book is one of the supports for the Merdeka curriculum currently used. This book consists of 134 pages is divided into 2 semesters and has 13 chapters.

This textbook is the main source of data for researchers to conduct research related to the mathematical content in this book, the English language elements related to the mathematical content in this book, which elements are listening, reading, speaking, writing, viewing, and presenting. And whether the mathematics content in this book follows the learning outcomes of mathematics and English in elementary schools based on the independent curriculum.

A. Findings

1. The Math Content Used in the English Textbook “Student's Book: My Next Word for Elementary School Grade 1”

Based on these findings, the researcher carried out a chapter-by-chapter selection to determine which chapters contained mathematical content in English textbooks. This analysis uses a checklist table and each

chapter containing mathematical content will be displayed based on this table.

Table 4.1 The Results of the Mathematics Content Contained in English Textbooks are based on the Merdeka Curriculum

Chapters	Math Content				
	Numbers	Algebra	Measurements	Geometry	Statistics and Probability
1	-	-	√ (Time, found on page 2)	-	-
2	-	-	-	-	-
3	-	-	-	-	-
4	√ (Number, found on page 35)	-	-	-	-
5	√ (Counting, found on page 43)	-	-	-	√ (Quantity, found on page 43)
6	√ (Number, found on page 58)	-	-	-	-
7	√ (Counting, found on page 62)	-	√ (Size, found on page 62)	√ (Geometry, found on page 62)	-
8	-	-	-	-	√ (Quantity, found on page 73)

Chapters	Math Content				
	Numbers	Algebra	Measurements	Geometry	Statistics and Probability
9	-	-	-	-	√ (Quantity, found on page 79)
10	-	-	-	-	-
11	√ (Number, found on page 102)	-	-	-	-
12	√ Counting, found on page 105)	-	-	-	√ (Quantity, found on page 105)
13	√ (Counting, found on page 117)	-	-	-	√ (Quantity, found on page 117)

Based on Table 4.1, the researcher found a numerous of mathematical content. Almost every chapter, only chapters 2, 3, 6, and 10, does not contain math content. The most common types of math content are numbers and data analysis. Each chapter that contains mathematical content has one or even two types of content. Details of the mathematical content listed in the chapter will be detailed below.

Chapter 1

In this chapter, there is measurement mathematical content listed in the chapter. The measurement is time, this is listed in the learning outcomes in the Merdeka curriculum where students can compare the duration of time.



Figure 4.1 About Time (Measurement)

Figure 4.1 is about greetings, but it also shows the duration or significant time difference. The time difference is expressed in congratulations, morning, afternoon, evening or night. This is also included as one of the mathematics learning achievements based on the Merdeka curriculum, namely about measurement.

Chapter 4

In this chapter, students are introduced to the numbers 1 to 10 in English. This is also one of the learning outcomes in the mathematics subject introduction of numbers based on the Merdeka curriculum. The mathematical content or mathematical vocabulary taught to students is about numbers, specifically the numbers 1 to 10.

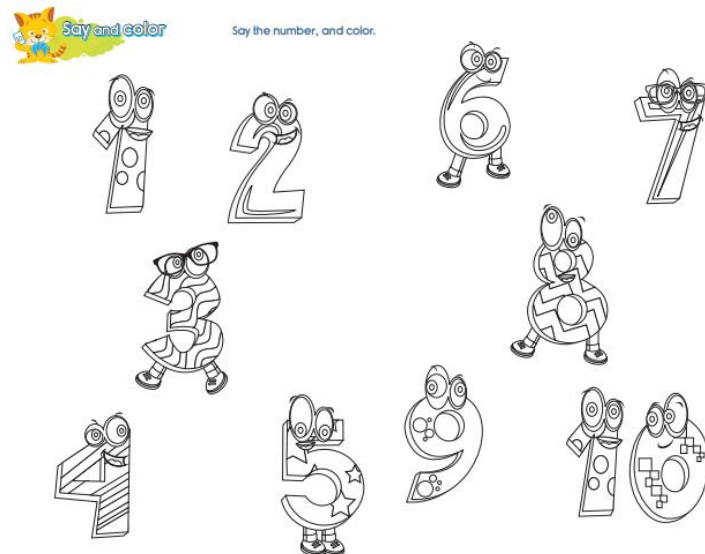


Figure 4.2 Example of Numbers 1 to 10

Chapter 5

In this chapter, the researcher found out about the quantity of data or the number of objects. Based on the Merdeka curriculum, mathematics learning outcomes include data analysis or quantity of objects. Because this material includes learning about singular and plural objects. In chapter 5,

for example 'I have one bag' and 'I have four books'. When there is more than one object, there is an additional letter '-s' after the noun which indicates that the object is plural or more than one. The vocabulary taught is about frequently encountered vocabulary in class, such as books, pencils, erasers, rulers, other bags.



Figure 4.3 Singular and Plural (Quantity)

Based on Figure 4.3, the plural form used in expressing or accompanying mathematical numbers uses the plural form which is formed simply by adding the suffix '-s'.

Chapter 6

In this chapter, only a few pages contain mathematical content, namely numbers. This chapter also contains numbers only as an evaluation of the coloring theme. Because in this chapter the theme discussed is vocabulary about colors, but there is mathematical vocabulary inserted, namely about numbers and coloring.



Figure 4.4 Coloring the Numbers

Chapter 7

In this chapter, the researcher found mathematical content about shapes. In textbooks, space forms are found in both basic two-dimensional and three-dimensional forms. Examples of two-dimensional shapes in the textbook

are circles, triangles and squares. Examples of three-dimensional objects or real objects in the book are blackboards, wall clocks, triangular rulers. And based on their achievement of the learning objectives in the textbook, they can compare the size of objects. The forms of spatial shapes contained in the attached textbook are as follows

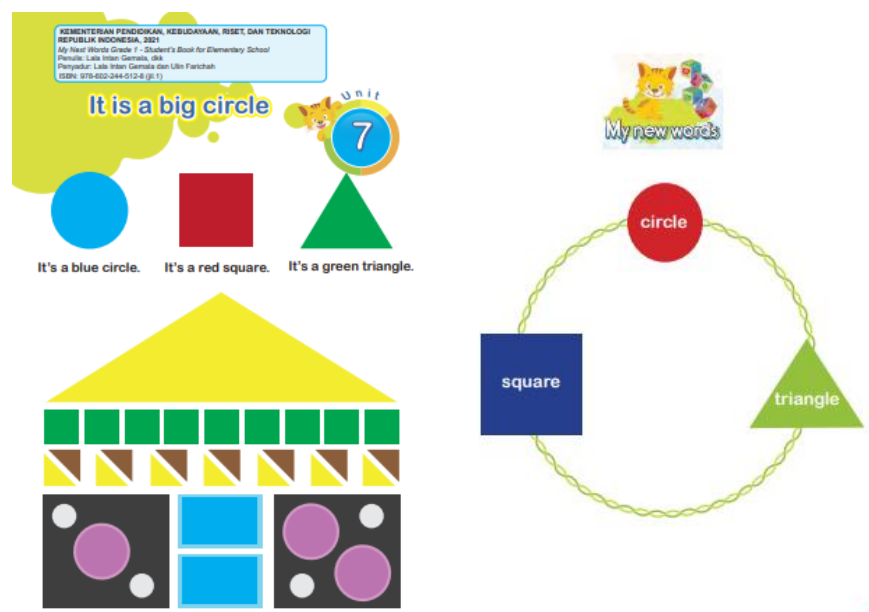


Figure 4.5 Examples of Shapes

Chapter 8

In this chapter, we have entered the beginning of the second semester, which is also the same as in the previous chapter, namely chapter 5 about the quantity of objects or singular plural of objects in the class. In chapter 8 it is more about the number of objects or quantity, more or less the same as the previous chapter. The vocabulary taught is still about vocabulary that

is in class as repetition because this is included in the early chapters of the second semester.



Figure 4.6 Singular and Plural (Quantity)

Chapter 9

In this chapter, it is still about the quantity of many objects. However, there is a difference from the previous chapters where plural objects end with the suffix '-s'. But there is a new vocabulary regarding animals, only the fish vocabulary has no changes, both in singular and plural forms. However, there are conditions where fish can be given the affix, but not '-s' but '-es'. When fish have many types or different species and students must be able to differentiate them.

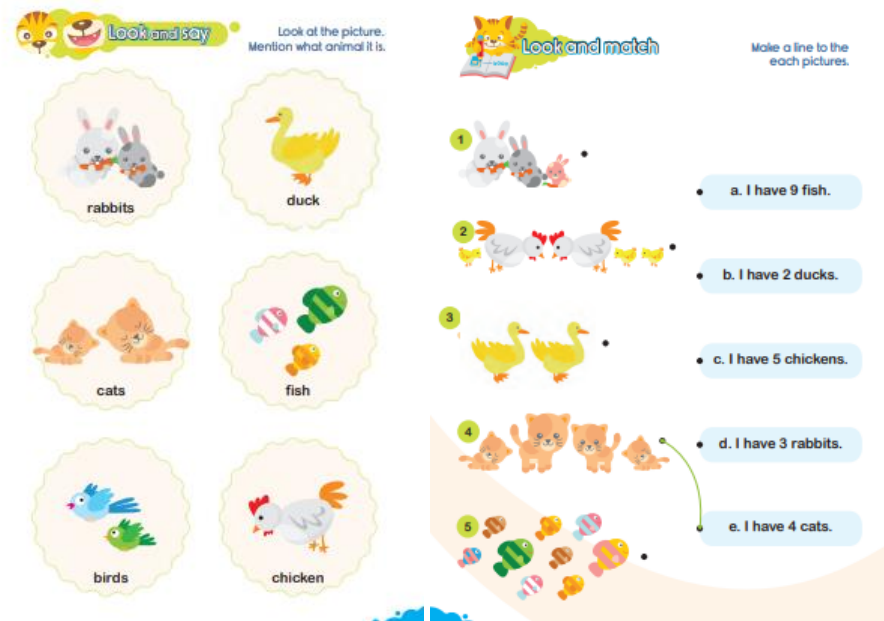


Figure 4.7 Singular and Plural (Quantity)

Based on Figure 4.7, the plural form used is no longer just the letter '-s' added to the end. But these are more complex to differentiate. Which means both singular and plural are the same or there is no difference or there is no addition of a suffix behind it.

Chapter 11

In this chapter, just guess the numbers in the listening section. Students only listen to instructions and fill in the blank numbers related to the fruit and animal vocabulary they have learned. There is additional vocabulary learned, namely vocabulary about family members. To fill in the blank answer, use simple numbers, namely from 1 to 10.

Listen and write Listen and write the number.

1.  = She has **five** apples.

2.  = He has _____ oranges.

3.  = He has _____ grapes.

4.  = She has _____ water melons.

5.  = He has _____ cat.

6.  = She has _____ fish.

Figure 4.8 Fill in the Number

Chapter 12

In this chapter, almost the same as in the previous chapters, this chapter also discusses counting. In this chapter we discuss more about plural objects in the context of vocabulary for fruit. Many discuss the plural endings '-s' and '-es' in fruit vocabulary. This explanation is influenced by the quantity of many objects. This difference will be a little difficult to distinguish because several conditions cause these words to end differently.

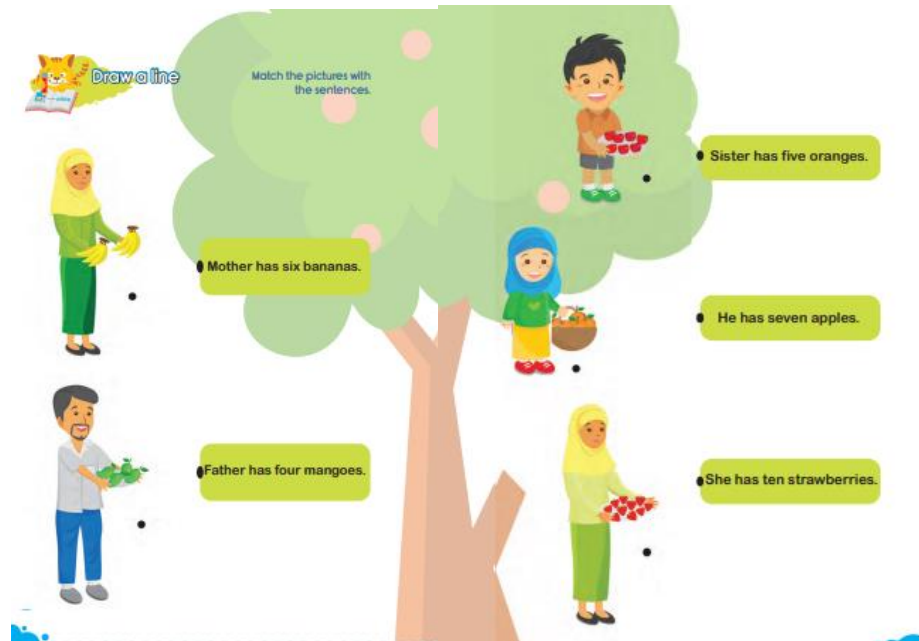


Figure 4.9 Example of Plural (Quantity)

From Figure 4.9, it can be seen that if the ending of a plural object does not only end in '-s' but is already at the stage of ending in '-es' and if the consonant ends in '-y' then the ending is '-ies'.

Chapter 13

In this chapter, we still discuss counting or many objects, singular and plural objects which have been explained in the previous chapters. In this chapter, the focus of the vocabulary taught is fruit vocabulary.

Based on the findings obtained based on the selection of mathematics content in each chapter which contains mathematics content based on the Merdeka curriculum, it can be seen from the table that the 5 existing

contents are based on mathematics learning outcomes based on the Merdeka curriculum, namely, numbers, algebra, measurement, geometry as well as data analysis and opportunities. There are only 3 mathematical contents included in the material in English textbooks. The 3 contents are about numbers, measurement and geometry.

2. English Skills Used in Mathematics Content in the English Textbook “Student’s Book: My Next Word for Elementary School Grade 1”

Based on the Merdeka curriculum, 6 elements in English are used, namely listening, reading, speaking, writing, viewing and presenting. Researcher found that in including mathematics content in English books, there were several English elements used to teach the material. These elements will be summarized in the following checklist table.

Table 4.2 English Skills Used in Mathematics Content based on the Merdeka Curriculum


English Skills	Chapters									
	1	4	5	6	7	8	9	11	12	13
Listening	√	√	√	√	√	√	√	√	√	√
Reading	-	-	√	-	-	-	-	-	-	√
Viewing	-	-	√	-	√	√	√	√	√	√

English Skills	Chapters									
	1	4	5	6	7	8	9	11	12	13
Speaking	√	√	√	-	√	-	√	-	√	√
Writing	√	√	√	-	-	-	-	√	√	-
Presenting	√	√	√	-	-	√	-	-	-	√

Based on the table 4.2, almost all mathematics content uses English elements, especially the listening, speaking, and viewing elements. In phase A, children tend to mostly only listen and speak based on the Merdeka curriculum English learning achievements. These elements are detailed as follows.


1) Listening Skill

This element is often found in textbooks on pages 7, 14, 16, 40, 41, 46, 47, 58, 63, 68, 69, 75, 80, 81, 87, 102 and 112. There is a listening element in each chapter. which is based on the Merdeka curriculum, children in this phase listen a lot. They tend to listen to stories or instructions from the teacher and also practice lots of questions using this element. Many of these elements are combined after students have listened, they will write, speak, draw, color, mark, or check according to the instructions.



Listen to your teacher,
and put a tick (✓).

5	<input type="checkbox"/>
3	<input type="checkbox"/>
8	<input type="checkbox"/>
1	<input type="checkbox"/>
10	<input type="checkbox"/>



Listen to your teacher,
and draw the shapes.


Count	Shape
2	
9	
1	
3	
4	
7	
2	

Figure 4.10 Math Content Used Listening Element

2) Reading Skill


This element is the most rarely found in textbooks. Only found on pages 51 and 121. Even though there are reading instructions, the main elements used are mostly speaking elements. Because if you want to say something you also have to read a lot. However, this element is very rarely found in textbooks because it tends to use speaking elements.



Figure 4.3 Math Content Used Reading Element

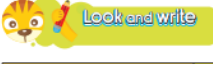
3) Viewing Skill

This element is also found quite often in chapters that contain mathematical material or content. This element is found on pages 44, 66, 76, 79, 84, 97, 98, 111, 117, 121. This element focuses on students' attention after students pay attention to the lesson, based on instructions from the textbook, students can speak, match, mark, write, and read after finishing viewing.











Look and tick

Put a tick (✓) to a shape of each object.



Look and write

Count the objects. Write the numbers.

No.	Object	Circle	Triangle	Square
1.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>







Objects	Numbers
	5 chairs
	_____ pencils
	_____ erasers
	_____ rulers
	_____ tables
	_____ pencil cases

Figure 4.4 Math Content Used Viewing Element

4) Speaking Skill

This element is also found in many chapters, this element is listed on pages 2, 7, 13, 16, 20, 36, 38, 44, 45, 67, 79, 81, 99, 108, 111, and 117.

This element of speaking is also most often found after the listening element. Because speaking is a productive skill. Of course, this element is also combined with other elements that support each other. Almost all elements are combined with speaking elements.



Figure 4.13 Math Content Used Speaking Element

5) Writing Skill

In this English textbook, several writing elements are found, although there are not too many, they can be found in several chapters. These writing elements are found on pages 20, 30, 41, 46, 50, 102 and 114. It is rare to find elements that are completely alone or that are not combined. An example can be seen in the picture below, students have to write the numbers they hear.

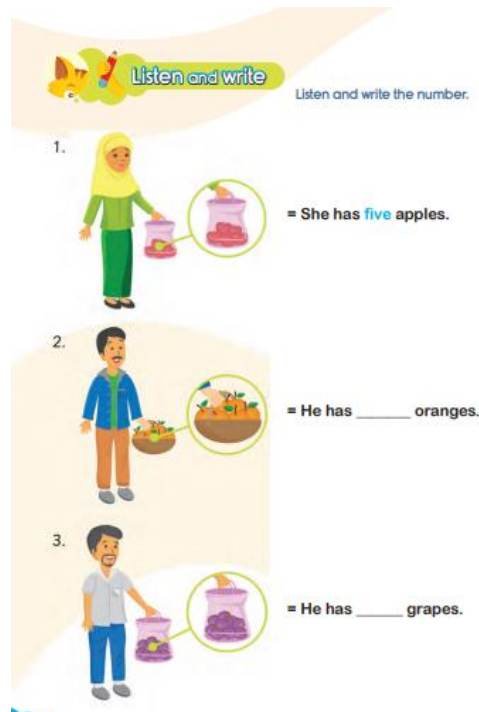




Figure 4.14 Math Content Used Writing Element

6) Presenting Skill


This element indirectly shows the results of their discussions involving students both individually and in groups. This element is found on pages 11, 15, 38, 45, 56, 74, 122 and 124. This element is carried out based on instructions such as coming to the front of the class, asking friends or teachers, and playing games in groups in the class. This element is of course closely related to the speaking element because speaking is highly emphasized in learning outcomes.



Take the card,
and say your number.



Ask your friends in the class.
"Do you have five pencils?"
"Yes/No".





Ask your friend's number
use the words.

No	Name	Number
1	Made	8
2		
3		
4		
5		





No	Objects	Friend's names			
		Cici
1.		Yes			
2.		No			
3.		Yes			
4.		No			
5.		Yes			

Figure 4.15 Math Content Used Presenting Element

3. The Math Contents Used in the English Textbook "Student's Book: My Next Word for Elementary School Grade 1" Following the Learning Achievements of Mathematics Subjects in Grade 1 Based on the Merdeka Curriculum

Based on the mathematical content in the English textbook, namely, numbers, measurements, geometry and statistics and probability. So almost all mathematics content based on the independent curriculum is included in the textbook. Details of the mathematical content used are detailed as follows

- 1) Numbers, the vocabulary taught is the numbers 1 to 10 which follows the learning outcomes of mathematics subjects in phase A based on the Merdeka curriculum
- 2) Measurement, from the textbook there is only one mathematical content related to measurement which is listed in Chapter 1 regarding greetings. Because greetings contain a duration of time where students can differentiate the time distance from morning to afternoon to afternoon to evening. This is also appropriate based on the learning achievements of mathematics subjects in phase A based on the Merdeka curriculum
- 3) Geometry, in the textbook there is a special chapter that contains a discussion of geometry, namely in chapter 7. In this chapter there are only three plane figures taught, but the shapes of real objects have similar shapes. These flat shapes include circles, squares and triangles. Based on this material, mathematics learning outcomes refer more to phase B (grade 3 or 4).
- 4) Statistics and probability, in the textbook 5 chapters contain mathematical content for statistics, specifically quantities. It determines, differentiates, or compares singular and plural objects or many fewer objects. This is following the learning outcomes for mathematics subjects in phase A based on the Merdeka curriculum.

B. Discussion

After generating, classifying categorizing, structuring narrative, and interpreting the data found above, the researcher detailed the discussion of the findings. Researcher discussed the mathematics content used in the mathematics content used in English textbooks, the English language elements used in the mathematics content in English textbooks, and whether the mathematics content was following mathematics learning outcomes in mathematics subjects based on the Merdeka curriculum.

1. The Math Content Used in the English Textbook “Student's Book: My Next Word for Elementary School Grade 1”

In the previous analysis, researcher found that of the 5 elements in mathematics learning, namely numbers, algebra, measurement, geometry and statistics and probability. There are 4 elements used in English textbooks, namely numbers, measurement, geometry and statistics and probability. Even though in chapter 1 the material of measurement (time) is directly discussed, it is quite far to reach the material of numbers, which is only found in chapter 4 and so on. Then, geometry refers to two-dimensional and three-dimensional objects and real objects (Thomson, et al., 2013). In this analysis, there are two-dimensional objects, for example, circles, squares and triangles. Then three-dimensional objects or real objects such as blackboards, balls, wall clocks, bicycle wheels, books, triangular rulers, and so on. The last one is about statistics and probability, quantity or

number of objects. However, this is not included in ordinary measurements because this measurement measurement is a comparison of size, time, volume or between the lightness and weight of an object (Bussi & Sun, 2016). Meanwhile, statistics or data analysis covers many things.

In the mathematical content found in certain chapters, some chapters are a little far from the title, such as in chapter 1 which has the theme "How are you?", but the researcher used the previous generating process, which is one of the steps in the analysis by Cohen et al. (2007) which has gone through a material selection or selection process, this process is selected based on the Merdeka curriculum which is the reference.

In semester 1, from chapters 1-7, the researcher summarized the mathematical content contained in English textbooks, namely in chapter 1, content about time (measurement) is found, and in 4 there is content about numbers or counting from 1 to 10 (numbers), in chapter 5, counting singular and plural objects in the class (quantity), in chapter 6, researcher found shapes (circles) in balloon pictures and also coloring instructions based on numbers. In chapter 7, it is found about the shape of spatial shapes, comparing or mentioning the size of objects.

However, in chapters 6 and 7, researcher found a lack of instruction in these contents, namely in chapter 6, the learning objective was that they could identify types of flat spatial shapes and their sizes. However, after the researcher carried out an analysis of the chapter, this objective should have

been aimed at chapter 7. Then, the researcher also found a lack of instructions in chapter 7, which based on the learning objectives in the textbook was clear about the learning outcomes. However, when looking at chapter by chapter, the instructions used are still lacking. For example, in chapter 7 about the shape of flat space, when the researcher looked at or analyzed the chapter directly, the researcher did not find any instructions to compare the sizes of objects. However, when looking at the learning outcomes in the textbook, students must be able to mention the size of objects (size).

In semester 2, from chapters 8-13, the researcher will summarize what mathematical content the researcher found in this English text. In chapters 8, 9, 11, 12 and 13 the researcher only found mathematical content that stated singular and plural objects. In these chapters, students focus only on counting and on the differences between singular and plural objects. According to Gonçalves, et al., (2020) as cited in Azar (1999), there are 2 types of plural forms, namely regular and irregular. The regular noun found in the textbook is when one book (singular) becomes two books (plural), there is an extra '-s' at the end. In the words one strawberry (singular) becomes three strawberries (plural), and there is an extra '-ies' at the end because it ends with the consonant '-y'. in the vocabulary one mango (singular) becomes five maggas (plural), there is an additional '-es' at the

end because it ends with the consonant '-o'. According to Drożdż (2020), counting vocabulary does have singular and plural forms as mentioned.

Based on the type of mathematics content in this English textbook, it is appropriate based on English and mathematics learning outcomes. The content used is appropriate based on the class level. And the use of vocabulary is still basic, it's just that there are unclear instructions regarding commands for using the content. English textbook "Student's Book: My Next Word for Elementary School Grade 1" is following the learning outcomes in the Merdeka curriculum.

2. English Skills Used in Mathematics Content in the English textbook based on the Merdeka Curriculum

In classifying and categorizing English language skills used in mathematics content, there are six English language skills based on their achievements, namely listening, reading, speaking, writing, viewing and presenting. Classification is carried out for each chapter that contains mathematical content. In the findings above, it can be seen that every skill is used in the content. However, only three skills are used a lot in the content. Based on the analysis above, three skills are listening, speaking and viewing. This book has improved or has advantages, which are based on the Merdeka curriculum, in this phase, especially in class 1, students only focus on listening and speaking (productive skills), apart from that, writing and

presenting skills are also found on several pages. However, the reading skill used is still very minimal.

So, the researcher concludes that this textbook is appropriate based on the Merdeka curriculum for grade 1, both from the use of English skills in this book and from its use of the math content in this textbook. This skill is also combined with content related to math vocabulary or numeracy. Other skills also used in math content such as drawing, coloring, marking or checking, mostly use listening and viewing elements.

3. The Math Contents Used in the English Textbook "Student's Book: My Next Word for Elementary School Grade 1" Following the Learning Achievements of Mathematics Subjects in Grade 1 Based on the Merdeka Curriculum

Based on the five elements of mathematics, almost all the content is contained in English textbooks. And the findings also state that the mathematics content contained in the textbook is in accordance with the learning outcomes in both mathematics and English subjects in the Merdeka curriculum. It also passed the selection process by Cunningsworth (1995). This book passed the analysis process of the data collected. This textbook meets the criteria for the material used based on the mathematics content in this textbook, aspects of this textbook have been taken into account based on learning outcomes.

The learning outcomes that have been achieved are not just from one subject but include two subjects. Because the most important aspect in this textbook is that teachers involve their students in the content (Harmer, 2007). Based on these findings, the researcher found that this textbook involved students actively working alone or in groups. In this textbook, intracurricular learning activities are also designed so that students can achieve the abilities contained in the learning outcomes in the independent curriculum (Irawati, et al., (2022).

For grade 1 textbook, almost covers all aspects of learning, especially in terms of material or content. In this phase, students are just learning about English and are presented with mathematics content. Because there are slight changes from the previous curriculum, in the Merdeka Curriculum learning English is highly recommended for elementary schools (Hadi, et al., (2023)