ANALYSIS OF STUDENTS' MATHEMATICAL CONCEPT UNDERSTANDING ABILITY IN MULTIPLICATION CALCULATION OPERATION MATERIAL

Created By:

Salma Nur Anaya

Siti Maryam Rohimah

Sarah Anida Putri

Yusup Nurdiansah

From : UNPAS, INDONESIA

INTRODUCTION

01

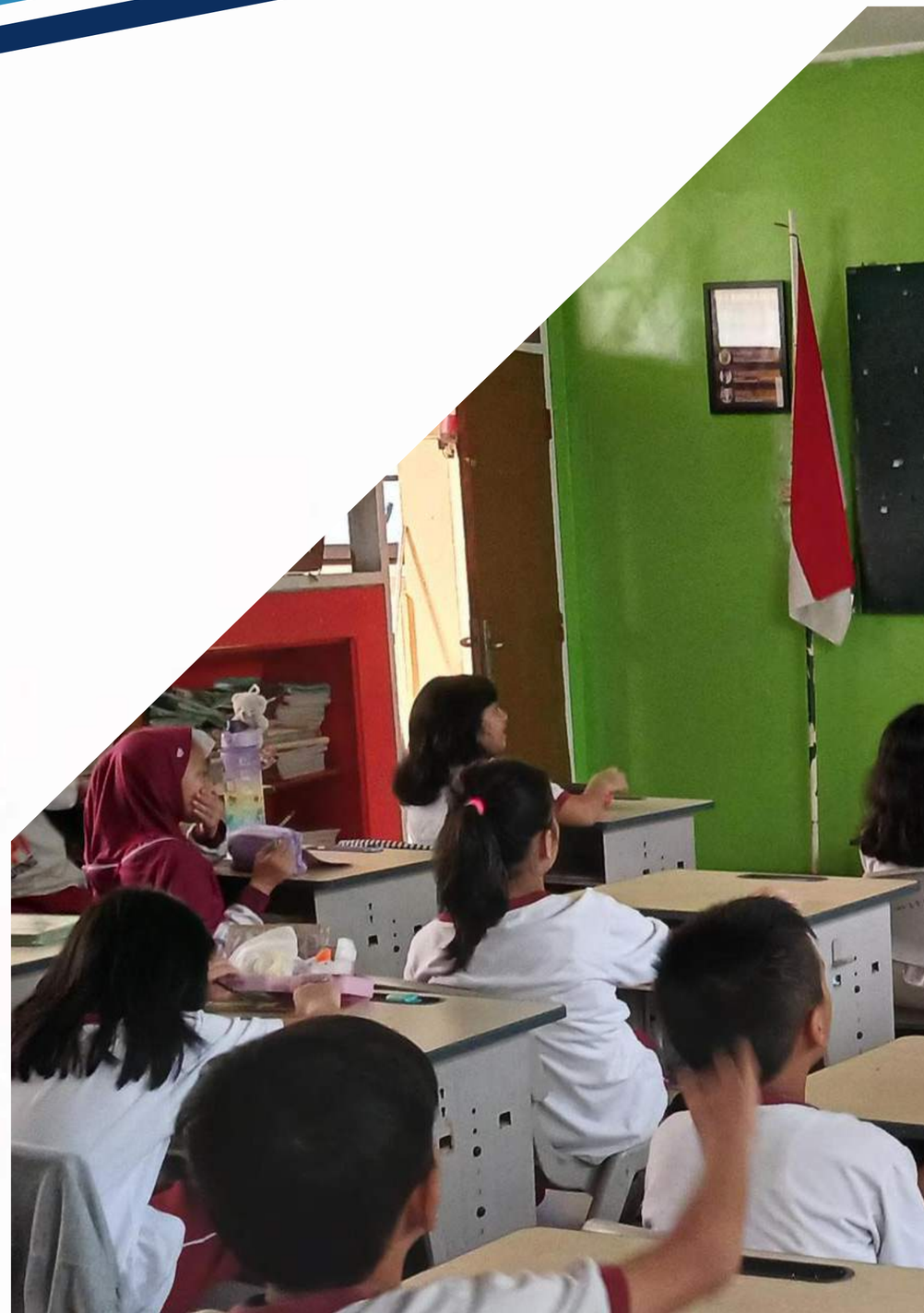
Conceptual understanding is a prerequisite for learning more complex mathematical concepts (Aledya, 2019).

02

Understanding mathematical concepts involves being able to interpret ideas or concepts, categorize mathematical objects, apply concepts algorithmically, translate mathematical concepts into one's own language, and connect disparate concepts (Hutagalung,2017).

03

The aim of this research is that students are able to understand the mathematical concepts of multiplication.



METHODOLOGY

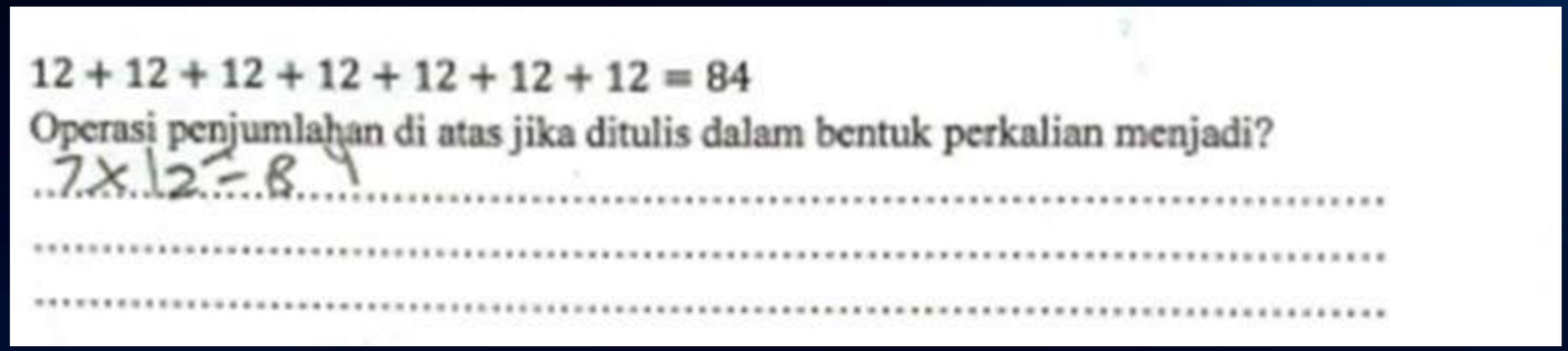
This research was conducted at BPI Elementary School, Bandung City for the 2023/2024 academic year. The subjects in this research were 22 third-grade elementary school students.

Techniques for gathering data include questionnaires, interviews, and documentation

The data analysis techniques used are data collection, data reduction, data display, and conclusion.

FINDING & DISCUSSION

1.Restate a concept


12 + 12 + 12 + 12 + 12 + 12 + 12 = 84

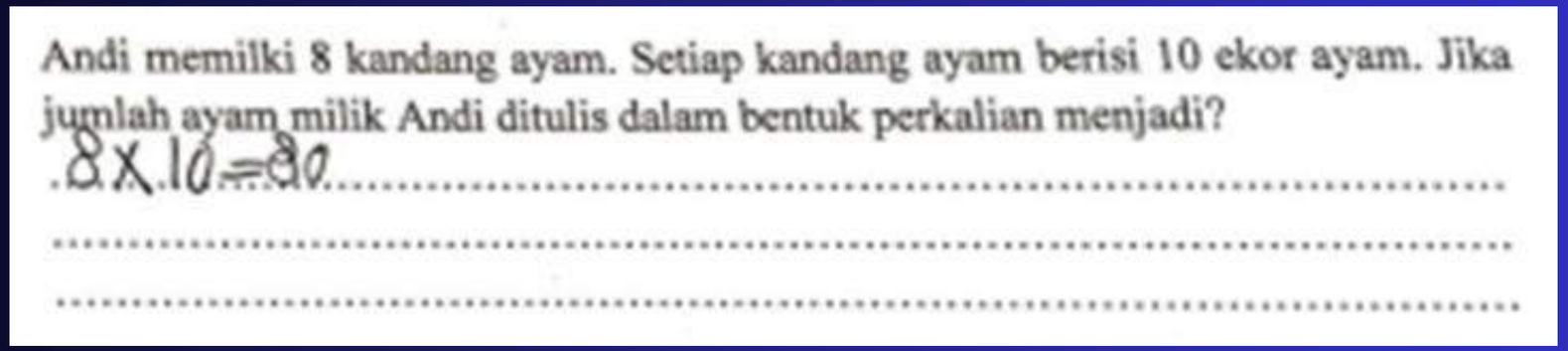
Operasi penjumlahan di atas jika ditulis dalam bentuk perkalian menjadi?

7 x 12 = 84

In Figure 1 above, students can re-solve a concept contained in the question, they are asked to write it in multiplication form and students can understand a concept contained in question number 2. This means students restate a concept correctly, for example, 7 x 12 = 84

FINDING & DISCUSSION

2.Present concepts into mathematical representation

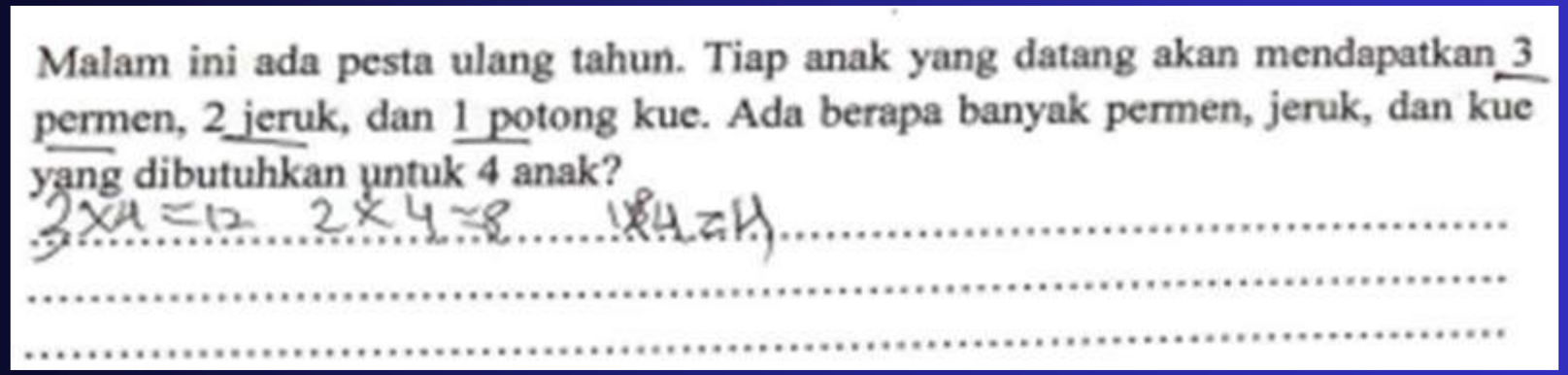

Andi memilki 8 kandang ayam. Setiap kandang ayam berisi 10 ekor ayam. Jika jumlah ayam milik Andi ditulis dalam bentuk perkalian menjadi?

8 x 10 = 80

In Figure 2 above there is a short story question about a chicken, where a chicken is categorized as a representation so that students can answer correctly because the questions given are easy to understand. This means that students can present concepts in mathematical representation.

FINDING & DISCUSSION

3. Mapply algorithm concepts in problem solving


Malam ini ada pesta ulang tahun. Tiap anak yang datang akan mendapatkan 3 permen, 2 jeruk, dan 1 potong kue. Ada berapa banyak permen, jeruk, dan kue yang dibutuhkan untuk 4 anak?

3 x 4 = 12 2 x 4 = 8 1 x 4 = 4

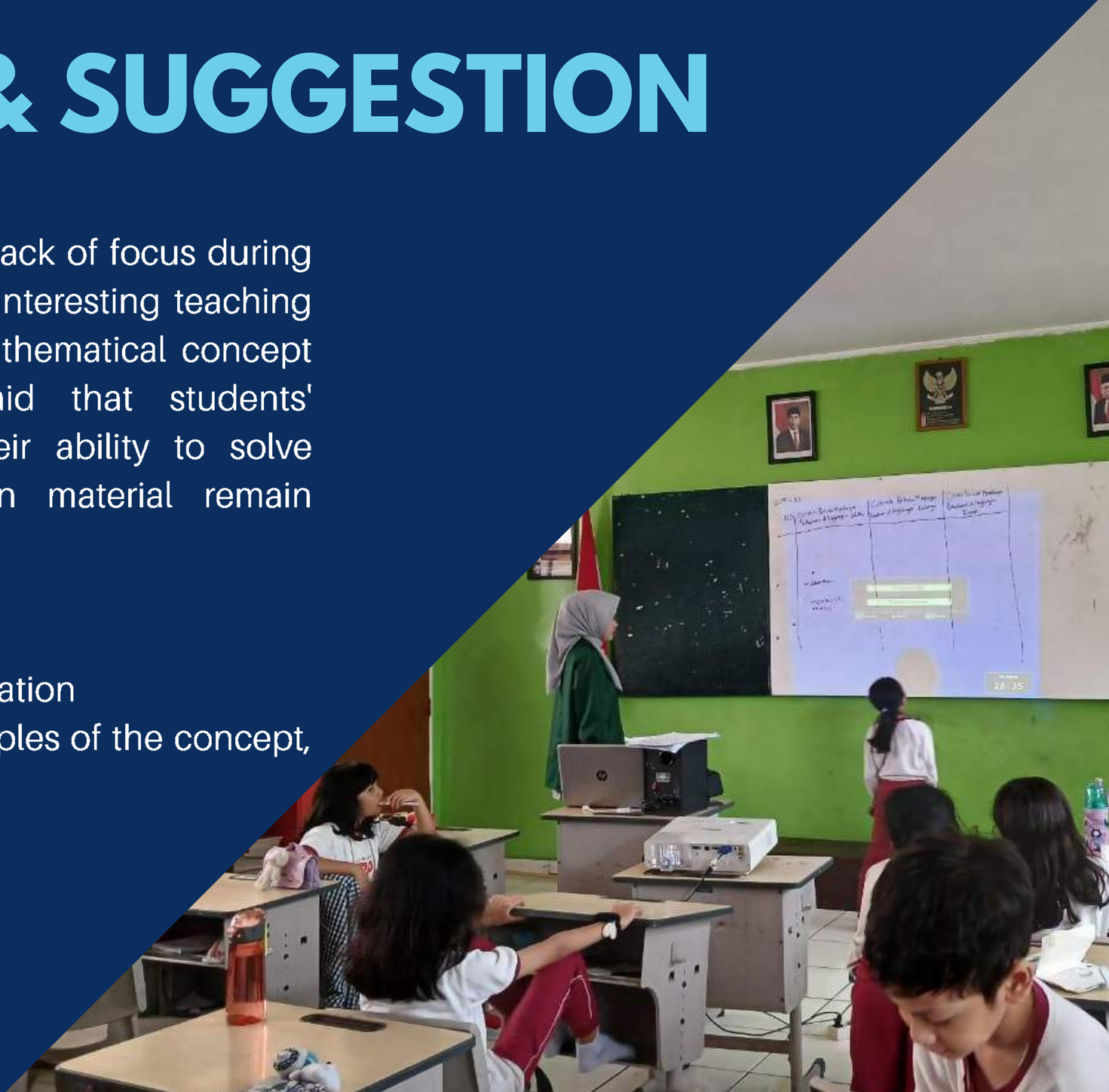
Figure 3 contains a problem that must be solved by students regarding the problem of all the food for 4 people. The problem that students have to solve is how much of each food is needed by 4 children, and as a result, students can apply algorithm concepts in problem-solving.

CONCLUSION & SUGGESTION

Overall, a number of causative factors, such as a lack of focus during study sessions, inconsistent study habits, and uninteresting teaching strategies, affect students' low percentage of mathematical concept understanding. Consequently, it can be said that students' comprehension of mathematical ideas and their ability to solve mathematical problems involving multiplication material remain deficient.

Suggestio :

- Students can increase their focus and concentration
- The teacher includes examples and non-examples of the concept, provides practice questions



THANK YOU
FOR LISTENING