



The Use of Number Transformer Media in Mathematics Learning in Elementary School Lower Grades

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Article Info

Article history:

Received Dec 12th, 2023

Revised Dec 20th, 2023

Accepted Dec 30th, 2023

Keyword:

Figure Transformer
Learning Media
Independent Curriculum

ABSTRAK

Penulisan makalah Best practise ini adalah untuk mengembangkan media pembelajaran di Kelas Rendah pada mata Pelajaran matematika. Pada makalah ini berfokus pada kelas awal yang baru memasuki sekolah baru di SD yaitu Siswa pada tahap usia antara 7- 8 tahun. Latar belakang dalam penulisan makalah ini adalah bagaimana media pembelajaran yang digunakan di kelas 1 yaitu belajar sambil bermain. Siswa di kelas pertama mereka masuk kesekolah SD, harus menjadi tempat yang mereka senangi seperti halnya bagi anak yang pernah duduk dibangku TK ataupun PAUD. Pada saat TK dan PAUD anak lebih condong bermain sambil belajar. Hal itu dilakukan untuk menarik siswa di kelas 1 untuk kehilangan rasa bermain pada saat di PAUD/TK. Penulis membuat sebuah media pembelajaran yaitu "Transformer Angka". Transformer angka digunakan pada pembelajaran numerasi siswa dalam mengenal angka-angka dengan cara bermain melipat kertas yang dibuat dari kertas undangan bekas. Media Transformer angka ini dibuat dari angka 0-9 dengan bentuk yang berbeda-beda. Hal ini juga sangat baik bagi pertumbuhan psikomotorik anak melalui jemari tangannya dengan seni melipat kertas. Penggunaan media pembelajaran transformer menjadikan pembelajaran menjadi menarik dan menyenangkan bagi pembelajaran matematika. Kehadiran media pembelajaran Transformer angka ini menjadikan siswa di kelas 1 menjadi sangat senang dalam belajar.

ABSTRACT

This Best practice paper is to develop learning media in the Lower Grades in mathematics. This paper focuses on the initial class that has just entered a new school in elementary school, namely students at the age stage between 7-8 years. The background in writing this paper is how the learning media used in grade 1 is learning while playing. Students in their first grade enter elementary school, it must be a place they enjoy as it is for children who have attended kindergarten or early childhood education. During kindergarten and early childhood, children are more inclined to play while learning. This was done to attract students in grade 1 to lose the feeling of playing at PAUD/Kindergarten. The author makes a learning media that is "Transformer Figures". Number transformers are used in students' numeracy learning in recognizing numbers by playing paper folding made from used invitation paper. Media Transformer this number is made from numbers 0-9 with different shapes. This is also very good for the psychomotor growth of children through their fingers with the art of paper folding. The use of transformer learning media makes learning interesting and fun for learning mathematics. The presence of this number Transformer learning media makes students in grade 1 very happy in learning.



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Introduction

Basically, students in the early grades which are transitional classes from PAUD-SD have the same characteristics, namely learning while playing. The curriculum used today is the Merdeka curriculum which provides space for teachers to be creative, do fun learning according to the needs and characteristics of students in the classroom. This independent learning curriculum is based on the ideals of Ki Hajar Dewantara, a national education figure, who emphasizes the freedom to learn independently and creatively. This will result in independent students (Ardianti & Amalia, 2022).

The independent curriculum is a curriculum that makes learning pro-student. By paying attention to various conditions such as the nature of nature and the nature of the times which make the strength in choosing learning in students. Curriculum implementation is a step not set by the government and is intended to help teachers and educational institutions set goals for an independent curriculum. Because the capacity of educators and educational units is certainly different, this stage of implementation is designed so that educators can try to implement the Independent Curriculum with confidence. Self-confidence is the belief that educators can continue to learn and improve their ability to do their best in implementing the curriculum, and more importantly, in educating (Standards Agency, 2022). The ability to continue learning is very important for teachers.

In implementing the curriculum, education units must consider the achievement of students' abilities in certain situations. Education units or groups of education units must implement curricula based on the principle of diversification to deal with learning loss under special conditions. This must be adjusted to the conditions of the education unit, potential, and students (Ministry of Education and Culture, 2022).

Especially for students in the early grades who enter the transition from early childhood to elementary school, of course, experience new things and new conditions. For this reason, it is necessary to do more than the Independent Curriculum which brings students in the return of the child's world through learning that is numbering according to the characteristics of students. Teachers play an active role in creating a comfortable learning atmosphere according to the needs and characteristics of students in low grades. Play is something that is the need of students at that age. By incorporating learning by learning while playing, introduce learning concepts such as in mathematics learning. Often mathematics learning is considered a frightening scourge, so it becomes a scary learning so that mathematics learning becomes fun for students.

Abstract mathematics requires a lot of attention and concentration, even a long time to learn symbols that are difficult to understand according to (Hartinah DS, 2013; Mustamid, 2015) (in Masykur et al., 2017). Learning mathematics in lower grades should be fun with simple concepts that encourage students to learn. One of them to make learning fun is to use Learning Media. According to (Daryanto, 2017), why should Learning Media be needed

because as teachers must know in advance in learning abstract and concrete concepts, from these learning media to convey messages or teachings that are poured into communication symbols needed in delivering material.

The use of Transformer learning media this figure is to be applied to students in low grades, especially grade 1 elementary school. At the beginning of entering elementary school, students are already faced with learning literacy and numeracy by reading and writing. But before doing this, teachers should introduce learning by playing in the early stages. Numeracy number recognition uses learning media such as recognizing numbers, shapes and concepts. Number transformers are learning media made from used invitation paper with shapes that are known and close by students. The transformer of the number itself will change shape into one form to another. The same is the case with toys owned by students that they play every day, which is a toy that requires creativity in changing the form of toys into other forms. Likewise with this number transformer too, which can change shape from a number to an interesting shape. The author made the learning media to see fun learning by playing so that students don't feel bored. As desired by the Independent Curriculum that learning is pro-student. In the curriculum there is a teacher's room, namely the teacher's freedom to make learning methods needed by students in the classroom. Moreover, there is a lack of interesting learning media in learning for lower grades that introduce the concepts of learning material.

The author created a media, namely Number Transformers to make learning meaningful for students and increase teacher creativity to find suitable learning methods for students on learning materials taught at school. Like the transformer movie that we know is a cartoon that is often seen by children and even some of them have the game. That is a game of changing the shape of a number into another object. Here can improve students' psychomotor thinking to change the shape of the number into a form. Where the power of students' imagination can be seen from what is moved through their thinking hands and brain.

The formulation of the problem in this study is to see the feasibility of the Transformer Number learning media used by students in learning mathematics material to recognize numbers. This study also looked at the practicality of Transformer learning media this number in its use for students in grade 1.

Method

In this study, qualitative descriptive research was conducted. This is done looking at the age of students who are brought to the age of 8 years, and is considered more practical. Data collection techniques with interviews, questionnaires that must be filled out by students in the form of simple essay questions and questionnaires in the form of emotions. Interviews were also conducted to students involved as subjects of this study, namely Grade 1 students at SD Negeri 11 Rantau Selatan. So are interviews conducted with class teachers and principals about this transformer learning medium. The observation technique in this study involves location, sample participants, and activities in the use of Transformer learning media Numbers supported by documentary evidence.

Results and Discussions

Utilization of Transformer Learning Media This number is used in low grades, namely in grade 1 which is used in basic mathematics learning, material recognizes the concept of numbers. In addition to acquiring knowledge and skills that can be seen from the results of use through the level of creativity of students in carrying it out. As for the didi participants in grade 1 as many as 26 students who will be the sample of this study. Also the principal and teachers who will respond to the use of Transformer learning media this number. Concept learning is a conclusion about something based on the characteristics with an object, events related to humans (Sumiati & Asra, 2007).

In this case, the learning carried out is problem solving on an object that must be solved by students who can improve the psychomotor of students through the fingers. This increases interest in students. Great interest has an influence on a learning that is studied seriously, because of the attraction for students when learning (Syaiful Bahri Djamarah, 2002).

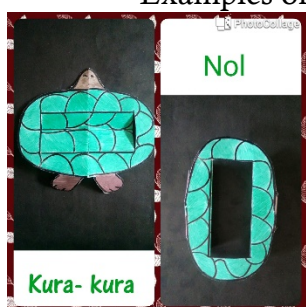
One of the functions of learning media is for the purpose of instruction where the information contained in the media must involve students either in the mind or mentally in the form of real activities so that learning occurs (Azhar Arsyad, 2017). There are several benefits of learning media in, namely 1) learning media can clarify the presentation of messages and information in the learning process, 2) learning media can focus the attention of students which can generate motivation for students, 3) learning media can overcome the limitations of the senses, space and time, 4) learning media can represent the daily activities of students (Azhar Arsyad, 2017).

The use of Transformer learning media this number, students are more about using fingers and the right brain. The creativity of students will be seen how to hold, fold, rotate transformer media paper with the results of their thoughts. Children who learn through active experiences such as pasting, turning, folding will become meaningful learning when every consequence of action is observed and interpreted (Hamdani, 2010).

In principle, learning media must be considered in the use of media in every teaching and learning activity is that the media is used and directed to facilitate students learning in an effort to understand the subject matter (Vienna Sanjaya, 2010). From some explanations about these learning media, the author can conclude that learning media must represent children's patterns in accordance with the characteristics and needs of students that can increase the attention of students so that it becomes motivation in learning.

In line with the learning principles in the Independent Curriculum rushed by Ki Hajar Dewantara that education must be on the side of students. This means that the independent curriculum invites teachers to continue to make improvements and something that sees benefits for students for learning. How meaningful learning is according to the characteristics and needs of learners (Khoirurrijal, 2022).

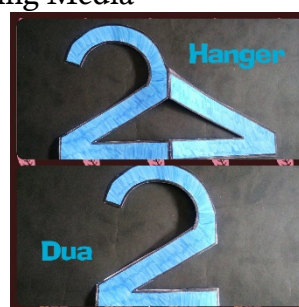
Examples of Number Transformer Learning Media



Picture 1. Transformer 0



Picture 2. Transformer 1



Picture 3. Transformer 2



Picture 4. Transformer 3



Picture 5. Transformer 4



Picture 6. Transformer 5



Picture 7. Transformer 6



Picture 8. Transformer 7



Gbr 9. Transformer 8



Gbr 10. Transformer 9

Discussion

The use of this learning media in grade 1 which was carried out at SD Negeri 11 rantau Selatan received a very good response from students, teachers and principals. It can be seen from the results of observations in the use of media and interviews conducted to samples made into the population in this study.

Based on the results of interviews conducted to grade 1 students about the use of Transformer Angka learning media, it can be concluded as follows.

1. Students feel that transformer learning media is a child's toy that they have so that learning is more fun while learning.
2. Students feel interested in learning so that learning is very active in the classroom
3. Learners are very happy with the learning provided by the teacher
4. Students are able to complete learning and understand the material with the learning media.

Based on interviews with students that mathematics learning by recognizing the concept of material using Transformer learning media, makes learning more active and students in grade 1 are very happy to be able to learn while playing



Picture 11. Use of Number Transformer Media to Students

The results of interviews conducted with grade 1 teachers of SD Negeri 11 South Rantau on the use of Transformer learning media numbers as follows:

1. Teachers feel good about classes that are so active that they make the class feel alive
2. Learning media Number transformers are very easy to use from used goods so that teachers do not spend too much
3. Learning media Figure transformers can represent the thinking patterns of students who are still in the world stage of play
4. Learning media Number transformer can attract students in learning mathematics

Based on interviews conducted with class teachers stated that Mediap learning Taransformer media is very easy and cheap but can represent children's learning patterns according to the characteristics and needs of students in learning.



Picture 12. Receiving Teacher Instruction in the Use of Number Transformer Media to Students

An interview was also conducted with the principal of SD Negeri 11 Rantau Selatan. The results of the interview stated that as a principal he was very happy with the updates in the learning carried out, where the learning could make students feel safe, comfortable and learning became interesting. Especially if the teacher makes the slightest changes as the principal really appreciates it. Breakthroughs can be new things that can also be shared with other teachers so that other teachers are also motivated to make changes and improvements to learning according to the needs of students in the classroom.

From the results of interviews conducted with the principal, stated that he was very happy and appreciated the teachers who were willing to do something new to improve learning changes for the better according to the characteristics and needs of students. Where learning makes meaningful for students.

Conclusions

This study describes the use of Number Transformer Learning Media in mathematics learning in lower grades of elementary school. Researchers found something interesting about Transformer learning media This number is because this media is a medium that is very close to toys at the age of students. So as to make the Transformer learning media This number is very well received and happy by students. Likewise, how to make and the materials used are easy to get and easy to make, so teachers do not spend too much money or bother in multiplying this transformer learning media because it is made from used goods, namely used invitation paper.

Learning in lower grades, for example in grade 1, where that period is the time when students transition from early childhood to elementary school, which is student learning is more synonymous with playing. With this learning media, the world of children's play is realized by learning while playing, so that learning is more active, meaningful and can increase students' interest in learning comfortably. It was also felt by teachers when teaching, researchers saw from the results of observations made.

Acknowledgments

The author expresses his infinite gratitude to all parties involved in this research, especially to

1. The Head of SD Negeri 11 Rantau Selatan who has given support to the author to carry out research in this school so that this article is completed.
2. Teachers, students of SD Negeri 11 Rantau Selatan who have helped in this research as subjects of the study so that the author can collect the necessary data.

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