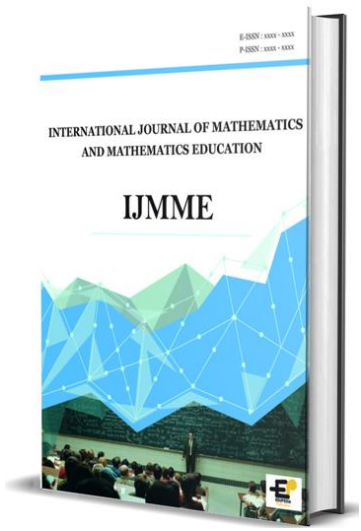

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A Systematic Literature Review on Concret Media: Application to Mathematics Learning

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A Systematic Literature Review on Concret Media: Application to Mathematics Learning

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Abstract

Concrete media is one of the media that is easy to obtain as well as a means of visual thinking for students. Concrete media can provide direct and meaningful learning experiences for students. The purpose of this study is to analyze various studies regarding the application of concrete media in learning mathematics. This Systematic Literature Review focuses on peer-reviewed journals and data obtained from the Mendeley database using specific criteria to analyze Concrete Media in Mathematics Learning from 2018-2022. The specific criteria used are in the form of application to Mathematics learning for elementary to high school levels only. There are 40 articles analyzed in this study which are indexed by SINTA and Google Scholar. Based on research through the Systematic Literature Review, the results show that the application of concrete media in learning mathematics can increase student activity and learning outcomes, and affect the ability to solve mathematical problems. An important finding in this study is that the application of concrete media makes the preparation of media procurement simpler and easier. This is because concrete media can be obtained in the surrounding environment and does not take long to obtain.

Introduction

Learning is a process of interaction between students and educators and learning resources in a learning environment. Learning is assistance provided by educators so that the process of acquiring knowledge and knowledge can occur, mastering skills and character, as well as forming attitudes and beliefs in students (Djamaluddin & Wardana, 2019). Mathematics learning is a process of interaction between teachers and students that involves thinking patterns and processing logic in a learning environment that is intentionally created by teachers using various methods so that mathematics learning programs grow and develop optimally and students can carry out teaching and learning activities effectively and efficiently (Nabillah & Abadi, 2019).Material in mathematics is an abstract concept (Sudiasih et al., 2018). Learning mathematics is also a process of forming knowledge and understanding of mathematics by students which develops optimally to achieve the goals set (Rohma

et al., 2021). When students study mathematics, what is learned is the application of mathematics which is close to students' lives (Kurniasari et al., 2019).

The achievement of mathematics education can be seen from students being able to complete mathematics learning tasks, students are able to apply the goals of mathematics education in everyday life, apply them, make mathematics an important part of students' lives (Putra & Milenia, 2021). The implementation of the 2012 Program for International Student Assessment (PISA) generally concluded that the achievements of students in mathematics greatly determine the success and progress of the nation, both in improving the quality of education and in political participation. The most important thing to solve is problem solving, which is the heart of learning mathematics. Mathematics is a subject that must be given to all students or students from elementary school to the next level of education. This is so students can think logically, analytically, systematically, and critically (Agustina & Rusmana, 2020).

As for the things that support the development of education including learning media used to deliver a material.As a place to bridge the transmission of knowledge so that it can be accepted by people who study it (Parnabhakti & Puspaningtyas, 2020). Effective learning activities require a medium that supports the learning process in schools (Karmajaya & Kusmariyatni, 2018). Learning media is defined as all objects that become intermediaries that occur in learning (Repitae & Rahmaniati, 2018). Media is the right tool that can be used by teachers to bridge between the concepts conveyed and media that can bridge them (Puspitasari et al., 2021). The types of media are quite diverse, one type of media that is easy to find is concrete media. Exploring concrete media in the application of learning is important because providing this media in the classroom does not require great effort. Media can be obtained in the surrounding environment.

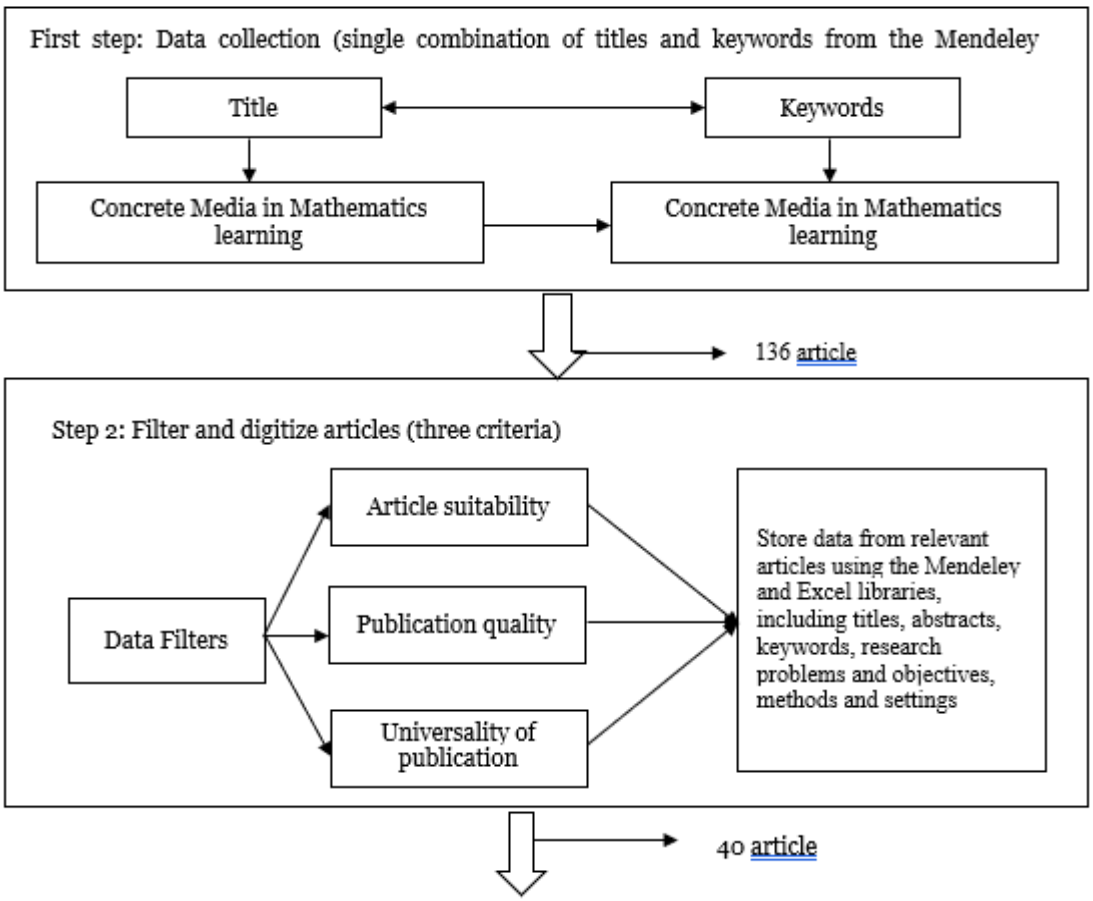
Concrete media are real objects that are used as learning materials or resources. The characteristics of the original concrete media are objects that are intact, operable, alive, in actual size, and can be recognized as their original form. Concrete media is very useful, especially for students who do not have experience with certain objects. For example, to study endangered animals, students are invited to see rhinos in zoos. In addition to observing in its original state, the use of concrete media can also be modified. The use of concrete media does not have to be presented in a real way in the classroom, but can also be done by inviting students to see (observation) the real object at its location. Concrete can be used in learning activities in the form as it is, does not need to be modified, there is no change unless it is moved from its original environmental conditions (Destrinelli et al., 2018). The use of concrete media can provide direct experience to students. Thus learning will become more alive because it can optimally utilize the environment around students as a learning medium (Narayani, 2019).

An analysis of the many benefits of using concrete media in learning mathematics needs to be studied in depth. This can help teachers to have lots of reference materials that can be used as concrete media when learning Mathematics. The use of media in learning certainly makes it easier for teachers to

convey material information in more detail. The findings from this study are expected to be useful for teachers to analyze the benefits obtained from the application of concrete media, as well as what concrete media can be used in learning mathematics. Benefits for the development of Mathematics learning designs, it is hoped that through this research it can provide an overview of what models can be combined with concrete media to be applied in Mathematics learning in schools.

Method

According to (Creswell, 2017), library research is used to explore, identify certain information on a theme and classify publications - in this case Concrete Media in Mathematics Learning. This systematic literature review combined qualitative (substantive) and quantitative analyzes of 40 academic articles (Miles & Hubberman, 1994). This literature review is presented in three stages, namely data collection, filtering and digitizing articles and data analysis which can be observed in Figure 1.



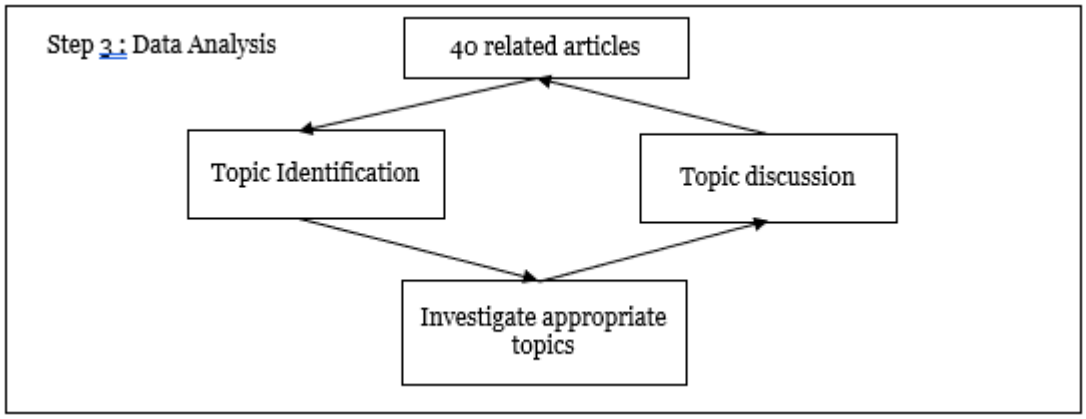


Figure 1. Research Design

Results

Analysis of research methods and quality of article publication is the initial concern in analyzing any research conducted by the authors for 5 years from 2018 – 2022. As much as 72.5%, the type of research used is Classroom Action Research (CAR), 22.5% is the type of research used in the form of Experiments, and 5% of the type of research used is in the form of Qualitative Research with a descriptive type. In detail in the last 5 years, an overview of the types of research used to discuss concrete media in learning mathematics can be seen in table 1.

Table 1. Types of Research Used in applying concrete media to learning Mathematics

Types of research	Year				
	2018	2019	2020	2021	2022
Classroom Action Research	7	9	3	5	5
Experiment	1	1	1	3	3
Qualitative (Descriptive)				2	

This type of CAR is the most dominant of the other types of research used. Articles that apply the type of CAR research, describe the role of concrete media in improving learning outcomes and student learning activeness in learning Mathematics. When applying concrete media, 70% of research applies it by combining it with certain learning models or strategies, while the remaining 30% of concrete media stands alone in its application as a complement to the delivery of material by teachers.

This type of experiment is ranked second after CAR. In research using this type, the research is in the form of examining the effect of concrete media on learning Mathematics. However, in research practice, the media does not stand alone in this study, all are collaborated with certain learning models. So that the influence test is not only limited to concrete media but collaboration between concrete media and certain learning models on mathematics learning, especially on mathematics

learning outcomes.

In the publication of articles carried out by the authors, the distribution regarding the quality of the publication is quite diverse. 40 articles analyzed, all indexed in Google Scholar. There are articles published in journals that are only indexed on Google Scholar, but many have also been published in accredited journals, ranging from Sinta accreditation 1 – 6. As many as 5% of the articles obtained are indexed on Google Scholar and are also accredited by Sinta. 2. As many as 17.5% of the articles obtained were indexed by Google Scholar and simultaneously accredited by Sinta 3. As many as 20% of the articles obtained were indexed by Google Scholar and simultaneously accredited by Sinta 4. As many as 7.5% of the articles obtained were indexed by Google Scholar and also indexed by Sinta 5 The distribution of article quality over the last 5 years in more detail can be observed in table 2.

Table 2. Article Publication Quality

Publication Quality	Year				
	2018	2019	2020	2021	2022
Sinta 1					
Sinta 2		2			
Sinta 3	4		1	1	1
Sinta 4	2	2		3	1
Sinta 5	1	1		1	
Sinta 6					
Scholar	8	10	4	10	8

In table 2 it appears that there are no articles discussing the application of concrete media to learning for Journals with Sinta 1 Accreditation. Then from the distribution of research subjects in each study, 87.5% of the research was carried out at the elementary school level with the most dominating type of CAR research. As much as 2.5% of the research implementation was carried out at SDLB, and at the SMA level it also had the same percentage, namely 2.5%. 7.5% of the research implementation was carried out at the junior high school level. In more detail, the number of studies carried out at each level of education can be seen in Figure 2.

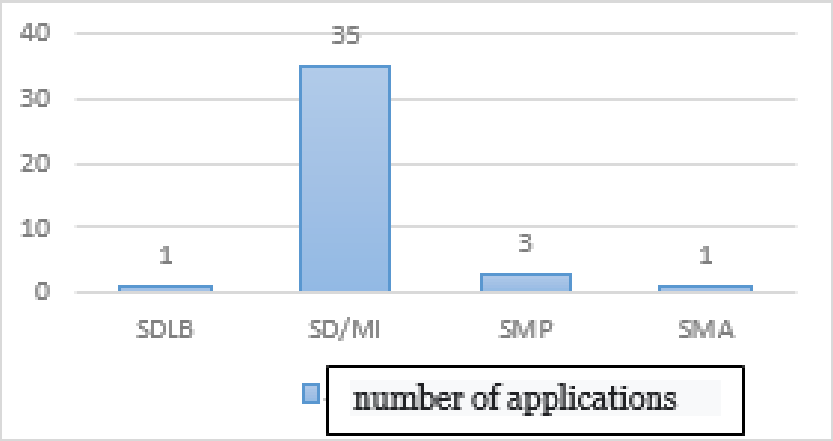


Figure 2. Implementation of the application of concrete media at the education level for the last 5 years.

The results of the research data included in this literature review are the analysis and summary of documented articles related to concrete media in learning Mathematics. The results of the research articles obtained were 40 articles in the period 2018 – 2022. The detailed results of the acquisition of articles can be observed in table 3.

Table 3. The results of obtaining research articles regarding concrete media in learning Mathematics

Researcher	Title	Research Result
(Sumarnaya, 2018)	Penerapan Model Pembelajaran Discovery Learning dengan Media Konkret untuk Meningkatkan Hasil Belajar Matematika	The application of the Discovery Learning learning model with concrete media is able to improve student mathematics learning outcomes.
(Repitae & Rahmaniati, 2018)	Upaya Meningkatkan Hasil Belajar Matematika Menggunakan Model Pembelajaran Berbasis Dengan Media Konkret Pada Peserta Didik Kelas IV-3 Telangkah Tahun Pelajaran 2016/2017	(1) The learning activities of students during Mathematics learning using a problem-based learning model with concrete media are good. (2) There is an increase in student learning outcomes in learning activities using problem-based learning models with concrete media in Mathematics lessons.
(Robiansyah & Diplan, 2018)	Upaya Meningkatkan Hasil Belajar Matematika Dengan Model Pembelajaran Course Review Horay Berbantuan Media Konkrit Pada Kelas IV SD-N Kasongan Lama Tahun Pelajaran 2016/2017	(1) Student activities during the mathematics learning process are more active by using the Course Review Horay learning model assisted by concrete media. (2) There is an increase in student learning outcomes in learning mathematics by using the Course Review Horay learning model assisted by concrete media.
(Sudiasih et al., 2018)	Pengaruh Model Pembelajaran Pembelajaran Berbasis Masalah Berbantuan Media Konkrit Terhadap Hasil Belajar Matematika Ditinjau Dari Disposisi Matematika	(1) There are differences in mathematics learning outcomes between groups of students who follow a problem-based learning model with a scientific approach with the help of concrete media and groups of students who take conventional learning with a scientific approach. (2) There is an interaction effect between the learning model and the disposition of mathematics on the results of learning mathematics. (3) For students who have a high mathematical disposition, there are differences in mathematics learning outcomes between groups of students who follow the problem-based learning model with a scientific approach assisted by concrete media and groups of students who follow conventional learning models with a scientific approach. (4) For students who have a low mathematical disposition, there is a significant difference

Researcher	Title	Research Result
		in the results of learning mathematics between groups of students who follow the problem-based learning model with a scientific approach assisted by concrete media and groups of students who follow conventional learning models with a scientific approach.
(Megawati, 2018)	Upaya Meningkatkan Hasil Belajar Matematika Dengan Menggunakan Media Konkret Pada Siswa Kelas Iia Sd Negeri 064960 Kecamatan Medan Polonia	(1) Student activities after using concrete media have increased (2) There is an increase in mathematics learning outcomes through the use of concrete media
(Pertiwi, 2018)	Penerapan Model Pembelajaran Kooperatif Tipe *Student Team Achievement Division* (STAD) Berbantuan Media Konkret Untuk Meningkatkan Hasil Belajar Matematika	(1) There was an increase in student mathematics learning outcomes through the application of the STAD cooperative learning model assisted by concrete media. (2) The classical mastery of student learning has also increased.
(Karmajaya & Kusmariyatni, 2018)	Penerapan Model Problem Based Learning Berbantuan Media Konkret Untuk Meningkatkan Hasil Belajar Matematika	There was an increase in the percentage of student learning outcomes through the Application of the Concrete Media Assisted Problem Based Learning Model.
(Sefnita Eka Sutarti & Citra Wibawa, 2018)	Penerapan Model Pembelajaran Inkuiri Berbantuan Media Konkret Untuk Meningkatkan Hasil Belajar Muatan Pelajaran Matematika	There is an increase in students' Mathematics learning outcomes through the Application of Concrete Media Assisted Inquiry Learning Models.
(Irwanto et al., 2019)	Penerapan Pendekatan Scientific dengan Menggunakan Media Konkret untuk Meningkatkan Hasil Belajar Matematika Siswa Kelas 4 SD	Implementation of learning steps using a scientific approach using concrete media can improve student learning outcomes.
(Purwaningsih, 2019)	Peningkatan kemampuan mengenal bangun ruang melalui media benda konkrit pada siswa tunanetra kelas IV di SDLB-A/D Kemala Bhayangkari 1 Trenggalek	The application of concrete media can improve the ability to recognize spatial shapes.
(Hartati, 2019)	Upaya Peningkatan Hasil Belajar Peserta Didik Kelas IV SD Negeri	The Realistic Mathematics Education (RME) approach with concrete media can improve student learning outcomes.

Researcher	Title	Research Result
	Seworan Materi Hubungan Antargaris melalui Pendekatan Realistic Mathematics Education (RME) dengan Media Konkret	
(Pauziah, 2019)	Meningkatkan Hasil Belajar Matematika dengan Menggunakan Media Kongkrit	Learning by applying concrete media can improve the quality of learning and student learning completeness in mathematics.
(Busrah, 2019)	Meningkatkan Prestasi Belajar Matematika Dengan Menggunakan Media Konkret Pada Siswa Kelas 3 SDN 1 Lenek	The use of concrete media can improve student achievement, student activity level, and teacher activity.
(Mulyawati et al., 2019)	Upaya Meningkatkan Kemampuan Menghitung melalui Media Konkret Koin Warna (Kancing) pada Mata Pelajaran Matematika Madrasah Ibtidaiyah	Color coin concrete media has an effect on improving students' numeracy skills and students' numeracy skills affect student learning outcomes.
(Sari, 2019)	Upaya Meningkatkan Hasil Belajar Operasi Bilangan Bulat Melalui Media Konkret Di SDN 4 Muarakuang	The application of concrete media can improve student learning outcomes about integer operations.
(Kurniasari et al., 2019)	Peningkatan Hasil Belajar Matematika Melalui Model Make A Match Berbantuan Media Konkret Kelas 4 SD	Learning by using the Make A Match model assisted by concrete media can improve student learning outcomes.
(Narayani, 2019)	Pengaruh Pendekatan Matematika Realistik Berbasis Pemecahan Masalah Berbantuan Media Konkret Terhadap Hasil Belajar Matematika	There is a significant effect of the Realistic Mathematics Approach based on problem solving assisted by concrete media on students' mathematics learning outcomes.
(Hayati, 2019)	Meningkatkan Hasil Belajar Matematika Dengan Menggunakan Media Konkrit Pada Siswa Kelas IV SDN 5 Anjani Kecamatan Suralaga	The application of concrete media can improve learning outcomes in Mathematics.
(Umardiyah, 2020)	Penerapan Pembelajaran Kontruktivisme Menggunakan Media Benda Konkret untuk Meninggkatkan Hasil	Constructivism learning using concrete object media can improve student learning outcomes in geometry material.

Researcher	Title	Research Result
	Belajar Siswa pada Materi Geometri Bangun Ruang di SDN Karangmojo II	
(Winarbin, 2020)	Penggunaan Media Benda Konkret Guna Meningkatkan Kemampuan Hitung Bangun Datar Dan Ruang	The use of concrete object media can improve student achievement. The activities of teachers and students have also increased from those that were originally categorized as less, to be good, and very good.
(Setyawan, 2020)	Meningkatan Hasil Belajar Siswa Menggunakan Realistic Mathematics Education (RME) Berbantuan Media Konkrit	The use of the Realistic Mathematics Education (RME) model assisted by concrete media can increase students' activity and learning outcomes in mathematics.
(Juliantini et al., 2020)	Pengaruh Model Pembelajaran Brain Based Learning Berbantuan Media Konkret Terhadap Kemampuan Pemecahan Masalah Matematika Siswa Kelas IV SD	The learning model of Brain Based Learning assisted by concrete media influences the ability to solve mathematical problems.
(Suwarningsih, 2021)	Implementasi Model Pembelajaran Cooperatif Learning Dengan Media Konkret Untuk Meningkatkan Hasil Belajar Muatan Pelajaran Matematika Siswa Kelas I SD Negeri 1 Seraya Barat	Implementation of cooperative learning learning models with concrete media can improve mathematics learning outcomes.
(Ningrum, 2021)	Optimalisasi Keaktifan dan Kemampuan Berhitung dengan Media Benda Konkret pada Siswa Kelas I SDN Kaliwareng	The use of concrete object media can increase students' activeness and numeracy skills.
(Arifiyanti et al., 2021)	Peningkatan Hasil Belajar Matematika Materi Pengukuran Berat Benda Melalui Media Konkret Pada Siswa Kelas II Semester Genap SDN 01 Tawangmangu	Learning by using concrete media can improve student learning outcomes.
(Hendriani, 2021)	Penggunaan Media Konkret Dalam Pembelajaran Matematika Di Sekolah Dasar	The use of concrete media in learning Mathematics in Elementary Schools can support student learning outcomes so as to get maximum results.
(Onsu, 2021)	Penggunaan Media Pembelajaran Konkret Untuk Meningkatkan	The use of concrete media is proven to improve mathematics learning outcomes.

Researcher	Title	Research Result
	Hasil Belajar Matematika bagi Siswa Tunagrahita Kelas X SLB GMIM Nazareth Tuminting	
(Sukriadi et al., 2021)	Peningkatan Hasil Belajar Matematika Tema Pengalamanku Menggunakan Media Konkret Pada Siswa Kelas I Sekolah Dasar	The use of concrete media on the theme of my experience in mathematics can improve student learning outcomes.
(Prananda et al., 2021)	Pengaruh Media Konkret Terhadap Hasil Belajar Materi Operasi Hitung Campuran Bilangan Bulat Siswa Kelas IV Sekolah Dasar	There is an effect of the use of claw concrete media on mathematics learning outcomes.
(Nurdianti et al., 2021)	Kemampuan Literasi Matematika Siswa SD Melalui Metode Team quiz berbantuan Media Konkret ditinjau dari Kemampuan Awal Matematika	The results of students' mathematical literacy abilities using the Team Quiz method with concrete media are different from the mathematical literacy abilities of students using the expository learning method.
(Rohma et al., 2021)	Keefektifan Metode Mind Map Berbantu Media Konkret Pada Hasil Belajar Matematika Bangun Ruang Kelas VI SD Islam Diponegoro Mranggen	The Mind Map learning method assisted by Concrete Media is effective for student learning outcomes.
(Puryanti, 2021)	Penggunaan Media Konkrit Gelas Es Cream Dan Kartu Berwarna Untuk Meningkatkan Kemampuan Siswa Dalam Pembelajaran Matematika Pada Materi Perkalian Dua Bilangan Bulat Di Kelas VII SMP Negeri 2 Meliau	The use of concrete ice cream glass media and colored cards supplemented by Student Worksheets (LKS) can facilitate students to think higher and be active in the learning process.
(Kusumaningrum & Nuriadin, 2022)	Pengaruh Pendekatan Matematika Realistik Berbantu Media Konkret terhadap Kemampuan Representasi Matematis Siswa	The realistic mathematical approach assisted by concrete media has an effect on mathematics learning in the classroom. The results of the students' mathematical representation abilities applied to a realistic mathematical approach assisted by concrete media were higher compared to classes subjected to conventional learning.
(Ramiati et al., 2022)	Pengaruh Penerapan Media Konkret Pada Mata Pelajaran Matematika Materi Penjumlahan Terhadap	The application of concrete media has an effect on the results of learning mathematics in addition material.

Researcher	Title	Research Result
	Hasil Belajar Siswa Kelas I MI An-Nidhom Kebunrejo Genteng	
(Agustinah, 2022)	Meningkatkan Hasil Belajar Matematika Pokok Bahasan Alat Ukur Dalam tema Kesehatan Melalui Media Konkrit Pada Siswa Kelas III SDN Talian Kereng	Concrete media can significantly improve mathematics learning outcomes on the subject of measuring instruments on the theme of health.
(Fathul et al., 2022)	Pengaruh Pendekatan RME Berbantuan Media Konkret Terhadap Hasil Belajar Matematika Siswa Kelas IV	The RME Approach assisted by Concrete Media Has an Influence on Students' Mathematics Learning Outcomes.
(Suriani, 2022)	Implementasi Model Pembelajaran Make A Match Berbantuan Media Konkret Untuk Meningkatkan Hasil Belajar Matematika	The results of the analysis show that the implementation of the make a match learning model assisted by concrete media is proven to improve students' mathematics learning outcomes.
(Rahayu et al., 2022)	Meningkatkan Hasil Belajar Matematika Melalui Benda Konkret Siswa SDN I Gunungan	The results of this study indicate that the application of concrete objects can improve critical thinking skills and mathematics learning outcomes.
(Suparmiyati et al., 2022)	Penggunaan Model Problem Based Learning Dengan Media Konkrit Untuk Meningkatkan Hasil Belajar Siswa	The use of the Problem Based Learning model assisted by concrete media in Thematic learning can increase student motivation and learning outcomes.
(Tendri, 2022)	Upaya Meningkatkan Hasil Belajar Siswa Melalui Pembelajaran Konsep Keliling dan Luas Persegi Panjang Menggunakan Media Benda Konkret di Kelas VII SMP Muhammadiyah 4 Palembang Muslimin	Learning the concept of perimeter and area of a rectangle through the media of concrete objects can improve student learning outcomes.

Interesting media will not put pressure on students in learning so that they will remain comfortable while learning without any compulsion (Putra & Milenia, 2021). One form of media is concrete media. Why concrete media? The simple reason is because this medium is easy to obtain. We can become objects around us as media, and adjust to the needs of learning Mathematics.

In 2018 there were 8 studies on concrete media. 7 studies discussing increasing activity and learning outcomes by collaborating with the application of learning models. And the results are all proven that the application of learning models with the help of concrete media can improve learning outcomes and student learning activities. Then, 1 study tested the effect of implementing media in collaboration

with problem-based learning models, and the results proved that problem-based learning models assisted by concrete media had an effect on student learning outcomes, especially in learning Mathematics (Sudiasih et al., 2018).

In 2019 there were 10 studies that discussed the application of concrete media to learning Mathematics. A total of 9 studies were carried out with the PTK design and had the aim of improving learning outcomes. From the research results of the nine studies it is proven that the application of concrete media can improve mathematics learning outcomes. Then, there was 1 study with an experimental design, testing the application of a Realistic Mathematical Approach Based on Concrete Media Assisted Problem Solving on Mathematics Learning Outcomes (Narayani, 2019). The results of the research presented also show that the application of a Realistic Mathematical Approach Based on Concrete Media Assisted Problem Solving has proven to have an effect on Mathematics Learning Outcomes.

In 2020 there are 4 studies that discuss the application of concrete media to learning Mathematics. A total of 3 studies were carried out with the PTK design with the aim of improving learning outcomes. Of the three studies conducted, all show that concrete media can improve mathematics learning outcomes. Then, there was 1 study with an experimental design that tested the effect of the Brain Based Learning Model Assisted by Concrete Media on Mathematical Problem Solving Ability (Juliantini et al., 2020). The results of this study indicate that the application of the Brain Based Learning Model Assisted by Concrete Media has proven to have an effect on Mathematical Problem Solving Ability.

In 2021 there are 10 studies that discuss the application of concrete media to learning mathematics. A total of 5 studies were carried out with the PTK design which had the aim of increasing learning outcomes and student activity. From these five studies, the results show that the application of concrete media can improve learning outcomes and student learning activities in mathematics learning, which is collaborated with various learning models. Then, there were 3 studies that were carried out with an experimental design, the first in the form of the Effect of Concrete Media on Learning Outcomes Material for Mixed Integer Computing Operations (Prananda et al., 2021). The second one is the Mathematical Literacy Ability of Elementary School Students Through the Quiz Team Method assisted by Concrete Media in terms of Early Mathematics Ability (Nurdianti et al., 2021). The third is, the Effectiveness of the Mind Map Method Assisted by Concrete Media on Learning Outcomes of Building Mathematics (Rohma et al., 2021). Of the three experimental studies, all three proved that there was a positive influence from the application of the model in collaboration with the application of concrete media.

In 2022 there are 8 studies that discuss the application of concrete media to learning mathematics. A total of 5 studies were conducted using the PTK design. Of the five studies, the aim is to improve learning outcomes, and the results prove that the application of concrete media by collaborating with learning models can improve learning outcomes. Then, 3 other studies were conducted with

experimental designs. The first study examined the effect of a Realistic Mathematical Approach Aided by Concrete Media on Students' Mathematical Representational Ability (Kusumaningrum & Nuriadin, 2022). The second study examined the effect of applying concrete media in the mathematics subject for addition material on the learning outcomes of first grade students of Mi An-Nidhom Kebunrejo Genteng (Ramiati et al., 2022). The third study examined the effect of the RME Approach Assisted by Concrete Media on the Mathematics Learning Outcomes of Grade IV Students (Fathul et al., 2022). The three experimental studies show the results that the treatment by applying a collaborative learning model with concrete media can have a significant effect on students' mathematics learning outcomes.

The systematic literature review conducted in this study revealed that over the last 5 years it has been shown that the application of concrete media in collaboration with learning models is capable of having a positive impact on student learning outcomes, student learning activeness, and in several studies it can also help improve problem solving abilities. mathematics. It should be underlined that most of the research collaborates concrete media with certain learning models to further maximize the impact on the mathematics learning being carried out. This is of course important information that concrete media, which is simple and quite easy to obtain, can have a sizable positive impact. However, of course in the application and selection of concrete media used, adjust to the mathematics material to be taught.

Conclusions

Based on the research, through a systematic literature review, the results show that the application of concrete media to learning mathematics can increase the activity and learning outcomes of students, as well as affect the ability to solve mathematical problems. An important finding in this study is that the application of concrete media makes the preparation of media procurement simpler and easier. This is because concrete media can be obtained in the surrounding environment and does not need to take a long time to procure. This can summarize the teacher's preparation time if they want to use the media in the mathematics learning activities carried out. However, the choice of concrete media that is applied still adjusts to the type of mathematics material to be taught to students.

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