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Articles

Pengaruh Model Pembelajaran Concept Attainment terhadap Pemahaman Konsep Matematika Siswa Kelas VII

Mawardin Mawardin, Arif Hidayad, Arif Rahman Hakim 745-761

pdf Abstract views: 220 times |PDF downloaded: 177 times

Pengembangan Media Video Animasi Berbasis Virtual Reality dengan Problem Based Learning Materi Rantai Makanan dalam Meningkatkan Hasil Belajar Siswa Sekolah Dasar

Cahya Kartika Adhi Pradana, Isa Ansori 762-776

pdf Abstract views: 165 times |PDF downloaded: 148 times

Optimalisasi Titik pada Kuadratur Gauss-Legendre dalam Evaluasi Akurasi Integral Numerik Berbasis Maple

Diyah Ayu Istiqomah, Ari Wibowo 777-786

pdf Abstract views: 177 times |PDF downloaded: 163 times

Pengaruh Model Pembelajaran Kooperatif Tipe Jigsaw Berbantuan LKPD terhadap Hasil Belajar Siswa Mata Pelajaran IPA Siswa Kelas IV SDN Inpres Lere

Nurul Aeni, Nurjumiati Nurjumiati, Muhammad Fuadi, Arif Rahman Hakim, Rizalul Fiqry 787-794

pdf Abstract views: 154 times |PDF downloaded: 93 times

Efektivitas Model Inkuiri Terbimbing Berbantuan E-Book pada Materi Zat Aditif untuk Meningkatkan Kemampuan Literasi Kimia

Muti Sabila Fadila, Riri Aisyah, Imelda Helsy, Yulia Sukmawardani 795-809

pdf Abstract views: 164 times |PDF downloaded: 105 times

Profil Literasi Digital Siswa Kelas X pada Pembelajaran Biologi di SMA Islam Sultan Agung 1 Semarang

Via Valenta Kafita Ardian, Fibria Kaswinarni , Ipah Budi Minarti 810-821

pdf Abstract views: 223 times |PDF downloaded: 187 times

Pengaruh Metode Pembelajaran Course Review Horay (CRH) Terhadap Hasil Belajar IPA Siswa Kelas IV SDN Inpres Rora

Nur Ihlas, Syahriani Yulianci, Hairunisa Hairunisa 822-832

pdf Abstract views: 89 times |PDF downloaded: 62 times

Penerapan Cooperative Learning dan Media Manipulatif untuk Meningkatkan Hasil Belajar Pecahan Siswa SDN 002 Palembang

Miftahul Jannah, Hamdi Akhsan, Ribkoh Ribkoh 833-844

pdf Abstract views: 107 times |PDF downloaded: 88 times

Efektivitas Penggunaan Wayang Tusuk sebagai Media Pembelajaran Matematika terhadap Hasil Belajar Perkalian dan Pembagian SD

Sefiyani Rafikha Putri, Wulan Sutriyani 845-857

pdf Abstract views: 121 times |PDF downloaded: 74 times

Efektivitas Penerapan Model TGT Berbantuan Media Spinner Numerasi terhadap Kemampuan Berhitung Siswa SD

Nailin Najikhah, Wulan Sutriyani 858-871

pdf Abstract views: 96 times |PDF downloaded: 69 times

Pengaruh Aplikasi Mobile Learning Oodlu Berbasis Game Edukasi terhadap Minat Belajar IPA Siswa Kelas VII MTS Muhammadiyah Lempangang Kabupaten Gowa

Ardiansyah Ardiansyah, Maman A Majid Binfas, Firdaus R 872-881

pdf Abstract views: 87 times |PDF downloaded: 60 times

Efektivitas Penggunaan E-LAPD dengan Model Pembelajaran Project Based Learning untuk Meningkatkan Keterampilan Berpikir Kreatif Peserta Didik pada Materi Faktor-Faktor yang Mempengaruhi Laju Reaksi

Salvia Salsabilla, Rusly Hidayah 882-895

pdf Abstract views: 217 times |PDF downloaded: 207 times

Media Pembelajaran Matematika Berbasis Interaktif Kelas V Pokok Pembahasan Bangun Ruang

Habesia Habesia, Zila Razilu, Hendra Nelva Saputra 896-905

pdf Abstract views: 126 times |PDF downloaded: 97 times

Pengaruh Model PjBL Berbasis Multimedia terhadap Pemahaman Konsep IPA Siswa Kelas IV di SDN Donggobolo

Ika Harmikam, Nurjumiati Nurjumiati, Syahriani Yulianci, Hairunisa Hairunisa, Ita Fitriati 906-913

pdf Abstract views: 108 times |PDF downloaded: 66 times

Analisis Kemampuan Literasi Sains Siswa dalam Pemanfaatan YouTube sebagai Media Pembelajaran IPA di Era Digital

Andriawan Saputra, Faiq Makhdum Noor 914-926

pdf Abstract views: 215 times |PDF downloaded: 133 times

Pengaruh Model Pembelajaran Inkuiri Terbimbing terhadap Kreativitas dan Hasil Belajar Siswa Kelas VIII MTs Negeri Sibolga pada Materi Getaran dan Gelombang

Siti Fathia Azhar Hasibuan, Bajoka Nainggolan 927-941

pdf Abstract views: 83 times |PDF downloaded: 48 times

Pemanfaatan Canva sebagai Media Pembelajaran yang Kreatif dan Interaktif dalam Meningkatkan Hasil Belajar Matematika SMP

Benedikta Malo, Maria Hartitin Sari Raja, Karolina Nona, Fransiska Sizi, Rikarlianus Nembo 942-952

pdf Abstract views: 156 times |PDF downloaded: 114 times

Pengaruh Model Pembelajaran IMPROVE terhadap Kemampuan Pemahaman Konsep Matematis Siswa Kelas VIII SMP

Rizkia Annisa Maharani, Sutirna Sutirna, Rina Marlina 953-963

pdf Abstract views: 63 times |PDF downloaded: 45 times

Pengaruh Model Pembelajaran SQ4R (Survey, Question, Read, Reflect, Review) terhadap Literasi Matematika Siswa MTs

Tifalina Serucha, Cut Intan Salasiyah 964-976

pdf Abstract views: 80 times |PDF downloaded: 55 times

Hubungan Resiliensi Matematis dengan Kemampuan Pemecahan Masalah Matematis Siswa Kelas VIII

Siti Nurkhodijah, Agung Prasetyo Abadi 977-984

pdf Abstract views: 141 times |PDF downloaded: 91 times

Peningkatan Hasil Belajar Matematika Materi Polinomial melalui Media Pembelajaran Tapolin pada Peserta Didik Kelas XI

Nurul Hidayah, Hana Puspita Firdaus 985-993

pdf Abstract views: 149 times |PDF downloaded: 79 times

Efektivitas Penggunaan Aplikasi Qanda dalam Meningkatkan Hasil Belajar Siswa pada Materi Bilangan Berpangkat dan BentukAkar di SMPK Yos Sudarso

Stefania Baptis Seto, Maria Melita Nunur, Marta Rini Siwo, Rosalia Deflora Nona, Arkanjela Sonia Wanwol 994-1004

pdf Abstract views: 95 times |PDF downloaded: 49 times

Analisis Kemampuan Pemahaman Konsep Matematis dalam Pembelajaran Aljabar

Nafisah Gitama Hesti, Indra Budiman 1005-1016

pdf Abstract views: 101 times |PDF downloaded: 74 times

Sirup Parijoto sebagai Literasi Kearifan Lokal Siswa: Inovasi Flashcard Etnosains dalam Pembelajaran IPA

Maulidia Nurul Muhammad, Iseu Laelasari 1017-1033

pdf Abstract views: 100 times |PDF downloaded: 112 times

Peningkatan Kemampuan Komunikasi Matematis Siswa melalui Pendekatan Problem Posing di Sekolah Menengah Pertama

Syarifah Putri Azkia, Susanti Susanti 1034-1046

pdf Abstract views: 58 times |PDF downloaded: 36 times

Studi Eksperimen: Media Pembelajaran IPA Berbasis Sabun Dr. Stone dengan Pemanfaatan Bahan Treasure of the Sea

Very Khoiriyani, Hanik Malichatin, Faiq Makhdum Noor 1047-1061

pdf Abstract views: 96 times |PDF downloaded: 60 times

Penggunaan Model Problem Based Learning dengan Pendekatan Pembelajaran Berdiferensiasi Berdasarkan Gaya Belajar untuk Meningkatkan Kemampuan Komunikasi Matematis Siswa

Reno Delison Bakkara, Yumiati Yumiati, Ardi Dwi Susandi 1062-1074

pdf Abstract views: 81 times |PDF downloaded: 47 times

Analisis Kemampuan Penalaran Matematis Siswa Kelas IX dalam Menyelesaikan Soal Cerita SPLDV

Kristin Natalia, Attin Warmi 1075-1083

pdf Abstract views: 86 times |PDF downloaded: 48 times

Pengaruh Media Interaktif Educaplay terhadap Hasil Belajar Matematika Siswa Kelas V SDN Lawangan Daya II

Ayu Maghfirah Widiyati, Lina Anggraini, Asri Istiqomaturrobiah, Putri Puspita Utami, Fahrur Rosi, Mohamad Nur Hidayat, Danu Pratama Putra, Ika Dian Rahmawati 1084-1093

pdf Abstract views: 130 times |PDF downloaded: 102 times

Analisis Miskonsepsi dalam Penyelesaian Soal Cerita Matematika pada Materi Bilangan Bulat di SDN 060907

Poppy Amalia, Jihan Hidayah Putri 1094-1103

pdf Abstract views: 101 times |PDF downloaded: 71 times

Pengembangan Media Pembelajaran E-Tata Surya Berbantuan Smart Apps Creator (SAC) pada Materi Sistem Tata Surya

Asrawati Hadju, Nova Elysia Ntobuo, Ritin Uloli, Mursalin Mursalin, Dewi Diana Paramata, Nurhayati Nurhayati 1104-1114

pdf Abstract views: 34 times |PDF downloaded: 22 times

Integrasi Etnomatematika Motif Tenun Sasambo dalam Pembelajaran Matematika untuk Meningkatkan Berpikir Komputasional Siswa

Sudarmin Sudarmin, Nurhijriah Nurhijriah, Anggar Putra 1115-1133

pdf Abstract views: 32 times |PDF downloaded: 11 times

Pengembangan Galeri Digital Karya Mahasiswa Pendidikan Profesi Guru (PPG) sebagai Showcase Akademik dan E-Portofolio Profesional

Puguh Darmawan, Imam Rofiki, Fahrany Wahyu Andini, Kholitdatul Khasanah, Leyna Dwi Agustina, Sri Wahyuni, Syekha Vivi Alaiya, Mutiara Sani 1134-1148

pdf Abstract views: 29 times |PDF downloaded: 13 times

Mathematical Anxiety, Learning Motivation, and Mathematical Creative Thinking in Junior High School

Yosafat Ardian Kristiarta, Totok Victor Didik Saputro, Adhi Surya Nugraha, Marsigit Marsigit, Melania Eva Wulanningtyas 1149-1160

pdf Abstract views: 25 times |PDF downloaded: 5 times

Persepsi Guru terhadap Modul Matematika Berbasis Etno-STEAM untuk Meningkatkan Literasi Matematika Siswa Sekolah Dasar

Ahyansyah Ahyansyah, Sukma Mawaddah, Sulistyani Sulistyani 1161-1175

pdf Abstract views: 13 times |PDF downloaded: 3 times

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Mathematical Anxiety, Learning Motivation, and Mathematical Creative Thinking in Junior High School

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Abstract: This study contains the effect of mathematical anxiety on the motivation to learn mathematics and the mathematical creative thinking abilities of junior high school students. Mathematics learning also needs to understand the psychological aspects of students, including about mathematical anxiety and motivation to learn mathematics. Mathematical anxiety and motivation to learn mathematics that are not immediately addressed properly and correctly will affect students' creative thinking skills in mathematics. The purpose of this study was to determine the effect of mathematical anxiety on learning motivation and mathematical creative thinking abilities of junior high school students. This study uses the literature review method with publication limitations of the last 5 years. Exploration of publication results using an open-access website taken from Google Scholar with research results published in Reputable National Journals at least Sinta 4 and Reputable International Journals at least Q3. Publication results are limited to searches using the keywords “Math Anxiety”, “Learning Motivation”, “Creative Thinking Skills”, “Junior High School Mathematics Learning”, “Math Anxiety”, “Learning Motivation”, “Creative Thinking Skills”, and “Mathematics Learning in Junior High School”. Exploration results of publications were analyzed using PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis) syntax. The results showed that mathematical anxiety had an effect on motivation to learn mathematics and students' mathematical thinking abilities. Students who have excessive mathematical anxiety tend to have low motivation to learn mathematics. Low motivation to learn mathematics will affect the way students think, especially with regard to the ability to think creatively mathematically. Therefore, teachers must be alert and communicative in order to overcome these problems and students become more comfortable when learning mathematics.

Keywords: Mathematical Anxiety; Mathematical Creative Thinking Skills; Motivation to Learn Mathematics; Junior High School Mathematics Learning

Abstrak: Penelitian ini berisi tentang pengaruh kecemasan matematis terhadap motivasi belajar matematika dan kemampuan berpikir kreatif matematis siswa sekolah menengah pertama. Pembelajaran matematika juga perlu untuk memahami aspek psikologis pada diri siswa antara lain tentang kecemasan matematis dan motivasi belajar matematika. Kecemasan matematis dan motivasi belajar matematika yang tidak segera diatasi dengan baik dan benar akan berpengaruh pada kemampuan berpikir kreatif matematika siswa. Tujuan dari penelitian ini yaitu untuk mengetahui pengaruh kecemasan matematis terhadap motivasi belajar dan kemampuan berpikir kreatif matematis siswa sekolah menengah pertama. Penelitian ini menggunakan metode *literature review* dengan batasan publikasi 5 tahun terakhir. Eksplorasi hasil publikasi menggunakan *open-access website* yang diambil dari *Google Scholar* dengan hasil penelitian yang dipublikasikan di Jurnal Nasional Bereputasi minimal Sinta 4 dan Jurnal Internasional Bereputasi minimal Q3. Hasil publikasi dibatasi dengan penelusuran

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menggunakan kata kunci "Kecemasan Matematis", "Motivasi Belajar", "Kemampuan Berpikir Kreatif", "Pembelajaran Matematika SMP", "*Math Anxiety*", "*Learning Motivation*", "*Creative Thinking Skills*", dan "Mathematics Learning in Junior High School". Eksplorasi hasil publikasi dianalisis menggunakan sintaks PRISMA (*Preferred Reporting Items for Systematic Review and Meta-Analysis*). Hasil penelitian menunjukkan bahwa kecemasan matematis berpengaruh pada motivasi belajar matematika dan kemampuan berpikir matematis siswa. Siswa yang memiliki kecemasan matematis yang berlebih cenderung memiliki motivasi belajar matematika yang rendah. Motivasi belajar matematika yang rendah akan berpengaruh pada cara berpikir siswa khususnya yang berkaitan dengan kemampuan berpikir kreatif matematis. Oleh karena itu, guru harus sigap dan komunikatif agar dapat mengatasi permasalahan tersebut dan siswa menjadi lebih nyaman saat belajar matematika.

Kata Kunci: Kecemasan Matematis; Keterampilan Berpikir Kreatif; Motivasi Belajar; Pembelajaran Matematika SMP

INTRODUCTION

Learning activities are closely related to academic and non-academic aspects. The academic aspect is related to the processing of cognitive aspects (Magdalena et al., 2021), while the non-academic aspects are related to the processing of psychological aspects (Magdalena et al., 2021; Qoriawati et al., 2021). These two aspects influence each other in the dynamics of learning activities, making both equally important in shaping students' overall learning experiences. The psychological aspects of learning include learning anxiety and learning motivation, where students' learning anxiety impacts their understanding of mathematics (Omar et al., 2022; Putra & Yulanda, 2021; Yurt, 2022) and further influences their cognitive and psychological responses (Velazco et al., 2021). In addition, learning mathematics for some students in junior high school is still considered a scary thing (Amran et al., 2021; Purnasari & Sadewo, 2020; Putri Hapsari et al., 2022), a condition often realized by mathematics teachers but not followed up more deeply, indicating a gap in mathematics learning management. Furthermore, learning mathematics at the junior high school level is a continuation of the elementary school level, where students have studied mathematics for approximately six years, and during that period they must have accumulated experiences—both pleasant and unpleasant—that strongly influence how they learn mathematics. These experiences can be grouped into psychological and cognitive experiences of learning mathematics, which in turn shape students' attitudes and performance in junior high school.

Based on the experience of researchers teaching mathematics at SD Sanjaya Tritis for approximately 4 years obtained that quite a lot of students who feel that mathematics is a difficult subject. The researchers also conducted personal conversations with students who experienced fear of the subject of mathematics. The results of the private conversations showed that most of these students felt anxious while studying mathematics and ended up lacking enthusiasm in learning mathematics. In addition to personal conversations, the researcher also sought to see the cognitive process of the work or tasks that the researcher had given to the group of students. The results of the researchers ' observations show that students who feel anxious have not been optimal in their mathematical creative thinking skills. When the researcher gave a question of High Order Thinking Skill, it was seen that the group of students had difficulty in the process of answering it. It should be underlined that to be able to

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answer questions of High Order Thinking Skill, students must have sufficient mathematical creative thinking skills.

In addition to the experience when teaching at the elementary school level, the researcher also has experience accompanying the learning of mathematics in one of the seventh grade students of junior high school level. The student whom the researcher accompanied admitted that he had a sense of anxiety and fear while studying mathematics. Based on *wawan hati* and observations of researchers during the accompanying students, it was found that these students had a bad experience learning mathematics when in elementary school. The student is still traumatized because he once got angry with his math teacher while in elementary school. That's what makes students anxious and afraid when studying mathematics.

Specifically, the researcher took the junior high school level in this scientific article because the junior high school level is in the middle between the elementary school level and the upper high school level. So, according to researchers, junior high school level has an important position in the processing of mathematical psychological aspects of students. The aspects that the author refers to are mathematical anxiety and students ' motivation to learn mathematics. So that if the two mathematical psychological aspects which when in elementary school there are less pleasant experiences can be processed properly, the hope later when in high school students can enjoy and comfortable in learning mathematics.

Ulfah et al. (2021) explained that there is a negative relationship between mathematical anxiety and motivation to learn mathematics. The negative relationship appears especially in students who experience online math tutoring during the COVID – 19 pandemic (Ulfah et al., 2021). If the motivation to learn mathematics is low, it will affect the student's mathematics learning process (Gazali & Atsman, 2017; Ilmadi et al., 2023; Jemudin et al., 2019). The impact that can be seen is the achievement of mathematics students who have high mathematical anxiety tends to be low. In addition, students who have low mathematics learning achievement tend to increase mathematical anxiety in themselves (Kusmaryono & Ulia, 2020a; Lailiyah et al., 2021; Salinas et al., 2021).

In the process of learning mathematics required a high motivation to learn. Student math learning motivation has a positive relationship with student math learning achievement (Capinding, 2022; Ilmadi et al., 2023; Sreylak et al., 2022). Mathematical anxiety always has a negative impact on mathematics learning motivation and mathematics learning achievement (Kusmaryono & Ulia, 2020b; Prasetyawan, 2018). However, it is not universal because mathematical anxiety does not always have a negative impact on motivation and achievement of mathematics learning if it can be processed effectively (Kusmaryono et al., 2022).

Based on the explanation above, mathematics teachers in their learning need to pay attention to mathematical anxiety and motivation to learn mathematics further. Teachers are very important in classroom learning activities (Kusnadi et al., 2022; Purnasari & Sadewo, 2021; Putri Hapsari et al., 2022). In addition to being a facilitator for students, teachers must also be able to process various things related to the cognitive and psychological aspects of students in learning mathematics (Aji, 2020; Saputro & Mahmudi, 2020; Bagou & Suking, 2020). The teacher's responsibility is not only in providing mathematics subject matter, but also in assisting non-academic matters in students (Budiana et al., 2021; Hakiki, 2020).

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The teacher needs to recognize the characteristics of the students he teaches. In general, there are 2 types of characteristics of students, namely extroverts and introverts. The characteristic of extrovert students is to dare to ask questions and dare to express their opinions. While the characteristics of introverted students tend to be quiet and not much physical activity. Through understanding the characteristics of these students, teachers will be helped in understanding their students thinking processes, especially in their mathematical creative thinking processes (Pangestu & Yunianta, 2019).

The ability to think creatively is related to the ability of students to find solutions to mathematical problems that students face. The discovery of solutions to mathematical problems is synonymous with the ability to solve mathematical problems. In this case, teachers have responsibilities in addition to guiding and training students in working on problems, namely to construct problems properly and correctly (Sari & Prihatnani, 2021). Through the construction of good and correct problems, students can be helped in logical and structured thinking patterns.

Therefore, the mathematics teacher must fully observe and assess his students in the learning process that occurs. This is in accordance with the principles in educational pedagogy, especially for the junior high school level. Thus, teachers can better understand the process of self-development of their students in academic and non-academic fields. In particular, teachers can process and overcome students ' mathematical anxiety. So that students can be more excited / motivated to learn in mathematics and develop their creative thinking skills. A further impact is the increased achievement of mathematics learning.

METHOD

The method used in this research is literature review. Literature review is a process of collecting, reviewing, and evaluating all literature related to the research to be carried out (Grant & Booth, 2009). This is an important part of the research process, because through literature review, researchers can find relevant and up-to-date information about the problem to be researched. Through literature review, researchers can identify the shortcomings and advantages of existing literature and provide a broader view of the research to be carried out. In implementing the literature review method, researchers use reference sources from selected articles in national and international journals.

There are 20 articles that are referenced by researchers in writing this article. Selection of articles according to the topic of article writing. The topic of this article is about the effect of mathematical anxiety on the motivation to learn mathematics and the mathematical creative thinking ability of junior high school students. Articles are sourced from national and international journals. National journals indexed by at least Sinta 4 and international journals indexed by Scopus at least Q3. The journal that the researcher refers to is a journal related to the discussion of the world of mathematics learning and education.

The exploration of published articles was carried out by providing the last 5 years of limitations using the keywords "Mathematical Anxiety", "Learning Motivation", "Creative Thinking Ability", "Junior High School Mathematics Learning", "Math Anxiety", "Learning Motivation", "Creative Thinking Skills", and "Mathematics Learning in Junior High School". Analysis of the exploration of publication results

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was carried out using the framework of Preffered Reporting for Systematic and Meta-Analysis (PRISMA) (Moher et al., 2009). The results of the exploration of articles analyzed using the *PRISMA framework* are presented in Figure 1.

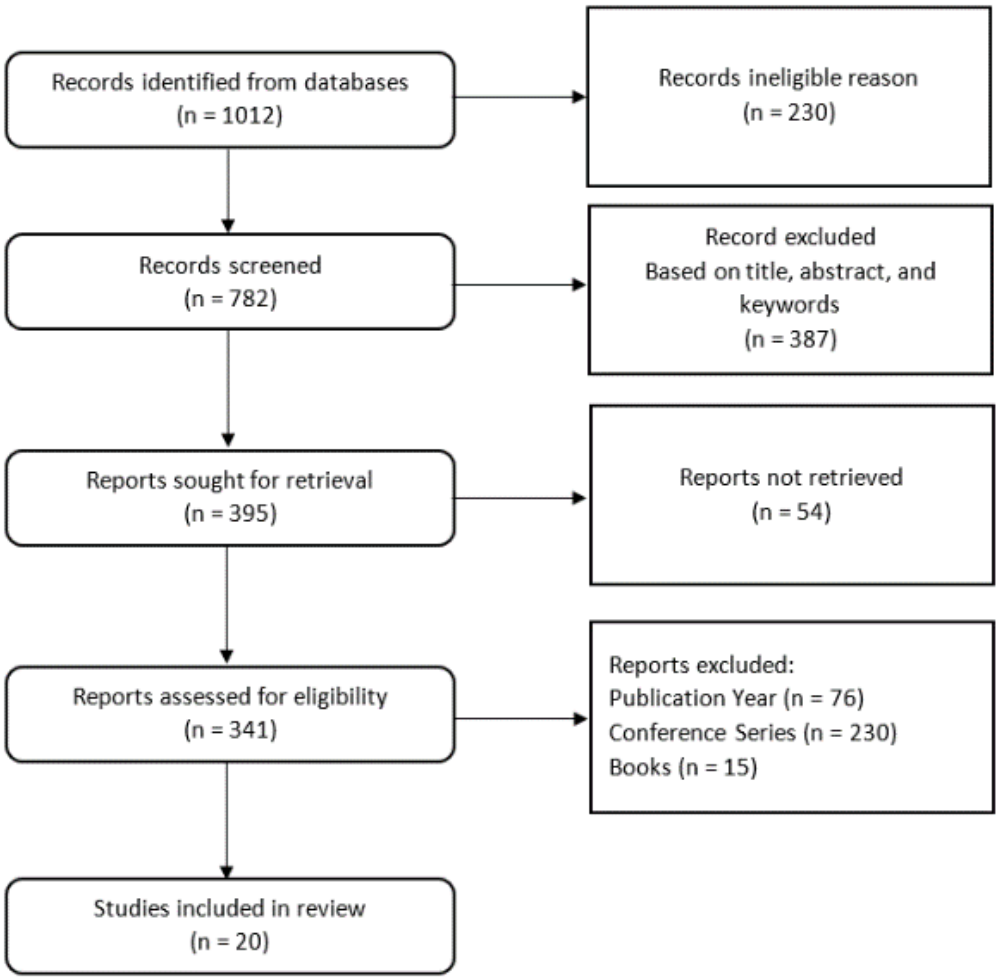

Figure 1. PRISMA Diagram

RESULT AND DISCUSSION

After the researcher made observations and analysis of 20 journal articles related to this research topic, the following results and discussions were obtained:

Table 1. Analyzed Article

Author	Results
Cahyani et al. (2025)	The first journal explains that a metacognitive approach, when considered alongside differences in *self-regulated learning* skills, influences elementary students' mathematical reflective thinking. It further highlights that self-regulated learning plays a crucial role in fostering deeper mathematical understanding
Kusmaryono &; Ulia (2020)	The second journal explains the use of teacher teaching styles using *the Problem Based Learning* model which can reduce mathematical anxiety
Gunawan & Fitra (2021)	The third journal explains the conceptual understanding of influential students in the cognitive process of learning mathematics, especially exponent and logarithmic material at the *transformation* and *process skill* stages

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Sulaiman et al. (2021)	The fourth journal explains the influence of self-esteem on student success in participating in mathematics learning
Sari & Prihatnani (2021)	The fifth journal explains the significant influence of the problem posing learning model on the ability to solve mathematical problems compared to *the problem solving* learning model.
Faturohman et al. (2022)	The sixth journal explains about *self-confidence* influential in online mathematics learning.
Machmud et al. (2022)	The seventh journal explains the mathematical disposition (confidence, persistence and perseverance, flexibility, interest and curiosity, reflection, and appreciation) affect the mathematics lecture process.
Mihăescu et al. (2025)	The eighth journal explains that breaking the cycle of mathematics anxiety can be achieved by equipping pre-service teachers with evidence-based strategies. It emphasizes that providing such strategies not only helps future teachers manage their own anxiety but also empowers them to support students more effectively in overcoming math-related challenges.
Velazco et al. (2021)	The ninth journal describes significant differences in the understanding of mathematics content presented by teachers virtually for cognitive and physiological response systems and general anxiety levels, as well as in the situational area of anxiety and anxiety evaluation in everyday situations between students who attended classes virtually and students who attended classes in person during the COVID-19 quarantine season.
Nisa & Astriani (2022)	The tenth journal explains that the application of the guided inquiry learning model can significantly enhance students' learning motivation. It shows that involving students actively in the inquiry process fosters engagement, curiosity, and a stronger drive to learn.
Polman et al. (2021)	The eleventh journal explains that meaningful learning in mathematics at the upper-primary level involves connecting new mathematical concepts with students' prior knowledge and real-life experiences. It highlights that such connections foster deeper understanding, retention, and the ability to apply mathematical ideas more effectively
Yunitasari et al. (2023)	The twelfth journal explains that the application of contextual teaching and learning can improve students' learning outcomes while at the same time reducing mathematics anxiety. It highlights that situating mathematics within real-life contexts makes the subject more engaging, understandable, and less intimidating for learners
Lailiyah et al. (2021)	The thirteenth journal explains about mathematics anxiety in students and its impact on mathematics learning achievement in online mathematics learning.
Hasnida et al. (2022)	The fourteenth journal explains the role of good teachers in learning mathematics and always improving their knowledge to motivate students to have a passion for learning as well.
Kelly et al. (2022)	The fifteenth journal describes a portfolio of validity for a measure of general mathematical anxiety that can be used across a variety of teaching modalities, throughout life, and is simple enough to be used cross-culturally.
Moliner et al. (2022)	The sixteenth journal describes changes in the learning environment, lack of motivation outside of school, boredom, and lack of student responsibility as part of the factors causing the decline in student mathematics learning achievement.
Ersozlu et al. (2022)	The seventeenth journal describes the causes of math and test anxiety and some intervention strategies that teacher educators can use to prepare for future teaching
Khaled (2022)	The eighteenth journal describes the positive relationship between systemic thinking skills, epistemological beliefs, and mathematical beliefs.

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Salinas et al. (2021)	The nineteenth journal describes an inverse comparison between students' mathematical anxiety and student achievement
Garba et al. (2020)	The twentieth journal describes the interaction of peers in daily life can have an effect on students' mathematical anxiety

Based on the important points of the twenty journal articles above, it can be observed that mathematical anxiety, motivation to learn mathematics, and students' mathematical creative thinking ability correlate with each other. These three things will affect students' mathematics learning outcomes. Therefore, follow-up is needed to regulate and process these three things appropriately.

Mathematical anxiety can come from the trauma of learning mathematics as well as students' fear of math learning outcomes. Students are usually afraid of their learning outcomes after seeing that the material being studied is difficult for them. In addition, it could be due to the influence of friends related to a negative view of the mathematics material being studied or related to the figure of the mathematics teacher. These anxieties if not controlled properly will make students feel depressed when learning mathematics.

The pressure of learning mathematics caused by excessive mathematical anxiety will make the motivation to learn mathematics in students decrease. Students become discouraged in participating in mathematics learning activities. Students tend to be passive in mathematics learning activities. If this condition continues to occur and is left alone, it will affect students' mathematical thinking skills.

Students' mathematical thinking skills include mathematical creative thinking skills. This type of thinking ability is needed by students in finding solutions to mathematical problems that require *high order thinking skills*. Students who are too anxious about mathematics will usually find it difficult to think mathematically, especially thinking creatively mathematically. There are already shadows of mathematical fear that appear in his mind and hinder students from progressing in learning mathematics. If this condition is left alone, it will affect the mathematical thinking process of students. If the mathematical thinking process is disrupted, then the formation of concepts in students will not be optimal and of course students' mathematics learning achievements will not be optimal.

Follow-up to regulate and process mathematical anxiety, motivation to learn mathematics, and students' creative thinking ability can be started from setting strategies in learning activities. Teachers must draft mathematical learning designs according to the real situation and conditions of students. In addition, teachers must also apply the principle of meaningfulness of learning mathematics in their teaching.

Teachers can develop mathematics learning plans that suit the characteristics and needs of students. Teachers need to compile a map of students in order to find out the characteristics and needs of students. Teachers can obtain this information through heart, observation, and pre-test. Through this way of acting teachers will be able to organize mathematics learning that is more pro-student, meaningful, and fun.

In addition, the ongoing student mentoring process can be carried out in collaboration with parents/guardians of each student. Through good communication and openness between teachers and parents/guardians of students, it is hoped that optimization of student assistance can occur. So that the mathematical anxiety that arises in students can be controlled properly. As a result, students can be more easily invited to learn mathematics and the growth of motivation from within students to learn mathematics. The ability to think creatively in students can be more optimally

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developed. In order for such treatment to continue until students graduate from high school, it is better for every mathematics teacher in junior high school to have a special book recording the progress of student mathematics learning that contains cognitive aspects and psychological aspects of mathematics students.

CONCLUSION

Based on the analysis and results of research on 20 selected journal articles, it can be concluded that: Excessive mathematical anxiety has a negative influence on students' mathematics learning development. These influences include students' motivation to learn mathematics to decrease because of the shadow of fear of stepping forward in learning mathematics. Because the motivation to learn mathematics decreases and there is inner pressure that arises, the clarity of mathematical thinking of students will be disrupted. So that students' mathematical creative thinking skills are less developed optimally. A further impact is that students' mathematics learning achievement will be less than optimal. Therefore, in order for students to learn mathematics more optimally, the teacher's way of acting can be carried out as follows:

1) Teachers develop mathematics lesson plans based on student characteristics and needs. Teachers should carry out an initial diagnosis of the condition of their students. Overall, teachers must know the potentials and weaknesses that exist in each student. One aspect that needs to be considered is also the selection of learning styles and models that will be implemented in mathematics learning later. Models that teachers can use in mathematics learning to overcome mathematical anxiety and to increase student motivation and mathematical thinking skills include contextual learning models. Through this learning model students will feel closer to mathematics and faster in grasping the concepts that the teacher provides. In addition, students also practice in the application of mathematical concepts in everyday life.
2) Mathematics teachers in junior high school should have a special notebook containing the development of cognitive and psychological aspects of students in learning mathematics. This book will be very useful to observe and assess the development that occurs in the students it teaches. In addition, this book will help mathematics teachers at the next level in observing the characteristics of the students they will teach.
3) Teachers also need to establish communication with parents/guardians of students so that there is continuous assistance. The hope is that assistance at school and home can still be controlled.

BIBLIOGRAPHY

Aji, R. H. S. (2020). Dampak Covid-19 pada pendidikan di Indonesia: Sekolah, keterampilan, dan proses pembelajaran. *SALAM: Jurnal Sosial Dan Budaya Syar-I*, *7*(5), 395–402.

Amran, Suhendra, Wulansari, R., & Farrahatni, F. (2021). Hambatan siswa dalam pembelajaran daring pada mata pelajaran matematika pada masa pandemik covid-19 di sekolah dasar. *Jurnal Basicedu*, *5*(6), 5179–5187. https://doi.org/10.31004/basicedu.v5i6.1538

Ciptaan disebarluaskan di bawah Lisensi Creative Commons Atribusi 4.0 Internasional

Budiana, I., Warhdana, N., & Barlian, U. C. (2021). Revitalisasi kelompok kerja guru untuk peningkatan kompetensi profesional guru di TK Negeri Pembina Centeh Kota Bandung. *Fastabiq: Jurnal Studi Islam*, *2*(2), 129–143.

Cahyani, N. F., Amir, M. F., & Wardana, M. D. K. (2025). Metacognitive approach based on differences in self-regulated learning skills toward mathematical reflective thinking for primary school students. *Indonesian Journal of Science and Mathematics Education*, *8*(1), 154–169. https://doi.org/10.24042/ijsme.v8i1.26157.

Capinding, A. T. (2022). Impact of Modular Distance Learning on High School Students Mathematics Motivation, Interest/Attitude, Anxiety and Achievement during the COVID-19 Pandemic. *European Journal of Educational Research*, *11*(2), 917–934. https://doi.org/10.12973/eu-jer.11.2.917

Ersozlu, Z., Blake, D., Usak, M., & Hawken, S. (2022). Addressing Preservice Teacher's Reasons for Mathematics and Test Anxiety. *European Journal of Educational Research*, *11*(3), 1715–1728. https://doi.org/https://doi.org/10.12973/eu-jer.11.3.1715 Introduction

Faturohman, I., Iswara, E., & Gozali, S. M. (2022). Self-Confidence Matematika Siswa dalam Penerapan Pembelajaran Online. *Mosharafa: Jurnal Pendidikan Matematika*, *11*(1), 85–94. https://doi.org/10.31980/mosharafa.v11i1.1048

Garba, A., Ismail, N., Osman, S., & Mohd Rameli, M. R. (2020). Exploring peer effect on mathematics anxiety among secondary school students of Sokoto State, Nigeria through photovoice approach. *Eurasia Journal of Mathematics, Science and Technology Education*, *16*(2). https://doi.org/10.29333/ejmste/112622

Gazali, R. Y., & Atsman, F. (2017). Peningkatan Motivasi Dan Minat Belajar Matematika Siswa Melalui Pendekatan Kontekstual Dalam Pembelajaran Matematika Yang Bermakna. *Pythagoras: Jurnal Pendidikan Matematika*, *12*(2), 123–134.

Grant, M. J., & Booth, A. (2009). A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal*, 91–108. https://doi.org/10.1111/j.1471-1842.2009.00848.x

Gunawan, M. S., & Fitra, D. (2021). Kesulitan Siswa dalam Mengerjakan Soal-soal Eksponen dan Logaritma. *Mosharafa: Jurnal Pendidikan Matematika*, *10*(2), 257–268. https://doi.org/10.31980/mosharafa.v10i2.875

Hakiki, M. (2020). Hubungan kompetensi kepribadian dan kecerdasan emosional guru (PLK) terhadap motivasi belajar siswa. *Jurnal Muara Pendidikan*, *5*(2), 633–642.

Hasnida, N., Ghazali, C., Suppian, Z., & Zaini, S. H. (2022). *Cakrawala Pendidikan Factors influencing students ' motivation towards learning*. *41*(1), 259–270.

Ilmadi, Gea, A. F., Sadewo, Y. D., Hasanah, U., Prasetyawan, E., Saputro, T. V. D., Rahmawati, S., Nurazizah, M., Nurfebrianti, A., Wini, T., & Suprapti, S. (2023). Application of Gamification with "SIKMA" to Increase Motivation and Learning Independence Attitudes. *Asian Journal of Community Services*, *2*(1), 145–152.

Ciptaan disebarluaskan di bawah Lisensi Creative Commons Atribusi 4.0 Internasional

Jemudin, F. D. E., Makur, A. P., & Ali, F. A. (2019). Hubungan sikap belajar dan motivasi belajar terhadap prestasi belajar matematika siswa SMPN 6 Langke Rembong. *Journal of Honai Math*, *2*(1), 1–13.

Kelly, S., Croucher, S. M., Kim, K. Y., Permyakova, T., Turdubaeva, E., Rocker, K. T., Eskiçorapçı, N., Stanalieva, G., Orunbekov, B., & Rimkeeratikul, S. (2022). A General Math Anxiety Measure. *Education Sciences*, *12*(6), 1–14. https://doi.org/10.3390/educsci12060370

Khaled, E. A. (2022). Systemic Thinking Skills: Relationship to Epistemological Beliefs and Mathematical Beliefs. *European Journal of Educational Research*, *11*(3), 1887–1896. https://doi.org/https://doi.org/10.12973/eu-jer.11.3.1887

Kusmaryono, I., Ubaidah, N., & Abdul Basir, M. (2022). It Doesn't Mean that Students Don't Have Mathematics Anxiety: A Case Study of Mathematics Learning with Path Analysis. *European Journal of Educational Research*, *11*(3), 1683–1697.

Kusmaryono, I., & Ulia, N. (2020a). Interaksi Gaya Mengajar dan Konten Matematika sebagai Faktor Penentu Kecemasan Matematika. *Mosharafa: Jurnal Pendidikan Matematika*, *9*(1), 143–154.

Kusmaryono, I., & Ulia, N. (2020b). Interaksi Gaya Mengajar dan Konten Matematika sebagai Faktor Penentu Kecemasan Matematika. *Mosharafa: Jurnal Pendidikan Matematika*, *9*(1), 143–154. https://doi.org/10.31980/mosharafa.v9i1.634

Kusnadi, D., Nanna, A. W. I., Bua, M. T., Saputra, A., & Aras, I. (2022). In House Training Pengembangan Kompetensi Guru Sekolah Dasar melalui Basic Literacy dan Literasi Matematika Model Pisa. *JIIP-Jurnal Ilmiah Ilmu Pendidikan*, *5*(1), 62–66.

Lailiyah, S., Hayat, S., Urifah, S., & Setyawati, M. (2021). Levels of students' mathematics anxieties and the impacts on online mathematics learning. *Cakrawala Pendidikan*, *40*(1), 107–119. https://doi.org/10.21831/cp.v40i1.36437

Machmud, T., Pusi, R. A., & Pauweni, K. A. Y. (2022). Deskripsi Disposisi Matematis Mahasiswa pada Mata Kuliah Kalkulus 1. *Mosharafa: Jurnal Pendidikan Matematika*, *11*(3), 349–358. https://doi.org/10.31980/mosharafa.v11i3.1486

Magdalena, I., Hidayah, A., & Safitri, T. (2021). Analisis kemampuan peserta didik pada ranah kognitif, afektif, psikomotorik siswa kelas II B SDN Kunciran 5 Tangerang. *Jurnal Pendidikan Dan Ilmu Sosial*, *3*(1), 48–62.

Mihăescu, D., Bologa, L., & Bîclea, D. (2025). BREAKING THE CYCLE OF MATH ANXIETY: EMPOWERING PRE-SERVICE TEACHERS WITH EVIDENCE-BASED STRATEGIES. *INTED2025 Proceedings*, 1913–1918. https://doi.org/10.21125/inted.2025.0562

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *Annals of Internal Medicine*, *151*(4), 264–269. https://doi.org/10.7326/0003-4819-151-4-200908180-00135

Ciptaan disebarluaskan di bawah Lisensi Creative Commons Atribusi 4.0 Internasional

Moliner, L., Alegre, F., & Lorenzo-Valentin, G. (2022). The COVID-19 Pandemic's Impact on 9th Grade Students' Mathematics Achievement. *European Journal of Educational Research*, *11*(2), 835–845. https://doi.org/10.12973/eu-jer.11.2.835

Nisa, C. C., & Astriani, D. (2022). Application of the guided inquiry learning model to increase student learning motivation. *Jurnal Pijar Mipa*, *17*(4), 475–479.

Omar, S. H., Aris, S. R. S., & Hoon, T. S. (2022). Mathematics Anxiety and its Relationship with Mathematics Achievement among Secondary School Students. *Asian Journal of University Education*, *18*(4), 863–878. https://doi.org/10.24191/ajue.v18i4.19992

Pangestu, N. S., & Hasti Yunianta, T. N. (2019). Proses Berpikir Kreatif Matematis Siswa Extrovert dan Introvert SMP Kelas VIII Berdasarkan Tahapan Wallas. *Mosharafa: Jurnal Pendidikan Matematika*, *8*(2), 215–226. https://doi.org/10.31980/mosharafa.v8i2.472

Polman, J., Hornstra, L., & Volman, M. (2021). The meaning of meaningful learning in mathematics in upper-primary education. *Learning Environments Research*, *24*(3), 469–486. https://doi.org/10.1007/s10984-020-09337-8

Prasetyawan, E. (2018). Keefektifan pendekatan CTL dan discovery ditinjau dari prestasi, kemampuan berpikir kritis dan kecemasan matematika. *Pythagoras: Jurnal Pendidikan Matematika*, *13*(2), 168–180. https://doi.org/10.21831/pg.v13i2.21221

Purnasari, P. D., & Sadewo, Y. D. (2020). Perbaikan kualitas pembelajaran melalui pelatihan pemilihan model pembelajaran dan pemanfaatan media ajar di sekolah dasar wilayah perbatasan. *Publikasi Pendidikan*, *10*(2), 125–132.

Purnasari, P. D., & Sadewo, Y. D. (2021). Strategi Pembelajaran Pendidikan Dasar di Perbatasan pada Era Digital. *Jurnal Basicedu*, *5*(5), 3089–3100.

Putra, A., & Yulanda, Y. (2021). Kecemasan matematika siswa dan pengaruhnya: Systematic literature review. *Didaktika: Jurnal Kependidikan*, *15*(1), 1–14.

Putri Hapsari, I., Victor Didik Saputro, T., & Damas Sadewo, Y. (2022). Mathematical Literacy Profile of Elementary School Students in Indonesia: a Scoping Review. *Journal of Educational Learning and Innovation (ELIa)*, *2*(2), 279–295. https://doi.org/10.46229/elia.v2i2.513

Qoriawati, R., Sulistyawati, I., & Yustitia, V. (2021). Literasi matematika siswa sekolah dasar ditinjau dari gaya kognitif field independent. *UNION: Jurnal Pendidikan Matematika*, *9*(2), 215–225.

Salinas, K., Ramayla Tolibao, J., & Moneva, J. (2021). Student's anxiety in mathematics. *International Journal of Novel Research in Education and Learning*, *6*(1), 46–55.

Saputro, T. V. D., & Mahmudi, A. (2020). Reflective pedagogical paradigm approach in mathematics learning. *Journal of Physics: Conference Series*, *1613*(1), 12007. https://doi.org/10.1088/1742-6596/1613/1/012007

Sari, M. Y., & Prihatnani, E. (2021). Perbedaan Kemampuan Pemecahan Masalah dari Penerapan Problem Solving dan Problem Posing pada Siswa SMA. *Mosharafa:*

Ciptaan disebarluaskan di bawah Lisensi Creative Commons Atribusi 4.0 Internasional

Jurnal Pendidikan Matematika, *10*(3), 471–482. https://doi.org/10.31980/mosharafa.v10i3.948

Sreylak, O., Sampouw, F., Didik Saputro, T. V., & Lumbantobing, W. L. (2022). Mathematics Concept in Elementary School: A Bibliometric Analysis. *Journal of Educational Learning and Innovation (ELIa)*, *2*(2), 268–278.

Sulaiman, H., Shabrina, F., & Sumarni, S. (2021). Tingkat Self Esteem Siswa Kelas XII pada Pembelajaran Matematika Daring. *Mosharafa: Jurnal Pendidikan Matematika*, *10*(2), 189–200. https://doi.org/10.31980/mosharafa.v10i2.883

Ulfah, S., Khoirunnisa, K., & Bekoe, C. (2021). Online tutoring in pandemic: An investigation on students' mathematics anxiety and learning motivation. *Pythagoras: Jurnal Pendidikan Matematika*, *16*(1), 127–140. https://doi.org/https://doi.org/10.21831/pg.v16i1.42044

Velazco, D. J. M., Hinostroza, E. M. F., Martínez, M. F. C., & Liccione, E. J. (2021). Mathematics Anxiety and Its Effects on Engineering Students' Performance During the Covid 19 Pandemic. *Journal on Mathematics Education*, *12*(3), 547–562. https://doi.org/10.22342/JME.12.3.13205.547-562

Yulmasita Bagou, D., & Suking, A. (2020). Analisis Kompetensi Profesional Guru. *Jambura Journal of Educational Management*, *1*(2), 122–130.

Yunitasari, F., Sintawati, M., & Mastul, A.-R. H. (2023). The Application of Contextual Teaching and Learning for Increasing Learning Outcomes and Reducing Anxiety in Elementary School Mathematics. *International Journal of Learning Reformation in Elementary Education*, *2*(02), 77–85. https://doi.org/10.56741/ijlree.v2i02.283

Yurt, E. (2022). Mathematics Self-Efficacy As A Mediator Between Task Value and Math Anxiety in Secondary School Students. *International Journal of Curriculum and Instruction*, *14*(2), 1204–1221.

Ciptaan disebarluaskan di bawah Lisensi Creative Commons Atribusi 4.0 Internasional