

BIBLIOMETRIC ANALYSIS OF RESEARCH ON MATHEMATICS ANXIETY IN TWO DECADES

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Abstract

Mathematical anxiety has plagued all levels of math students. Bibliometric analysis is required due to the absence of quantitative research in this field's publications. Employing 496 Scopus literature, this research investigated the evolution of publications pertinent to mathematics anxieties in learning. The descriptive and network analysis software applications Biblioshiny and VOSviewer are utilized. Over the past 20 years, the results demonstrate that the aggregate trend of publications in this field has increased by 25% annually. Frontiers in Psychology is ranked first among publications. The most influential author, E.A. Maloney, had 832 citations and publications. The United States surpassed all other nations in terms of contribution. The article "Mathematics Anxiety and the Affective Decline in Performance" by MH Ashcraft ranks first in annual total and average citations. Psychology and the educational process in college, the primary factors for the emergence of mathematical anxiety, and elementary school math knowledge are the most popular themes among researchers. Given that math anxiety can potentially impair learning, this study aids readers in gaining a deeper understanding of the current corpus of research.

Keywords: Math anxiety, Learning mathematics, Mathematical evolution, Bibliometrics



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1. INTRODUCTION

Mathematical knowledge directly applies to real-world situations; therefore, learning is based on concepts instead of rote memorization. According to The National Council of Teachers of Mathematics (NCTM), a professional organization in the United States, the emphasis of education in mathematics should be on the comprehension of fundamental concepts as opposed to presents of instructions (NCTM, 2000). Various abilities, including numerical understanding, instinctive attention to numerosity, mathematics, counting, and geometric abilities, are required for students to learn mathematics (Hannula-Sormunen et al., 2017). Furthermore, students can use this mathematical skill to develop their potential.

However, many students' perception that mathematics is complicated (Li & Schoenfeld, 2019) contributes to their incapacity to become proficient in mathematics (Rittle-Johnson, 2017). This failure gave rise to students' mathematical anxieties (Ramirez et al., 2018). Mathematics anxiety is characterized by fear, tension, and uneasiness in mathematics contexts. According to the results reported by Ferguson et al. (2015), individuals with a high level of math anxiety showed decreased instructions, increased spatial and general anxiety, and poorer performance on psychological evaluations of minor and significant spatial abilities. Moreover, based on the findings of Paechter et al. (2017), mathematical anxiety has an immediate impact on task performance and an enduring impact on learning and academic

advancement. Moreover, mathematical anxiety has become a problem affecting various disciplines, countries, and industries (Khasawneh et al., 2021). According to Balt et al. (2022), math anxiety affects the socio-emotional development of school-aged adolescents and poses a risk for severe problems.

Although mathematics anxiety has an unfavorable effect on students, this field of study has attracted the attention of academics. Mathematical anxiety-related literature has been developed theoretically and empirically, including the work of Ersozlu & Karakus (2019), which utilizes the WoS database to map mathematical anxiety-related literature. His research has investigated mathematical anxiety through anxiety, motivation, self-efficacy, self-concept, mathematical performance, achievement mathematics, gender-related differences, test anxiety, working memory, arithmetic, mental arithmetic, and numeracy. In a second study, Khasawneh et al. (2021) investigated the effects of arithmetic anxiety. His research demonstrates that the effect of gender on the apprehension of mathematics varies across countries and academic fields. Research by Yuan et al. (2023) contrasts the mathematics anxiety of 15-year-old students in five Asia-Pacific economies using PISA 2012 data. Strong negative correlations are found between test scores, interests, knowledge, abilities, and teaching methods, while correlations between teaching methods and parental influences are lesser.

The growing interest in mathematics education research demonstrates the significance of this field. Diverse research methods and discussion forums have examined various mathematical anxiety-related research topics. In addition to education, psychology, sociology, management, and computer science, interdisciplinary fields such as psychology, sociology, and education have also researched mathematical anxiety. Nevertheless, there is still a lack of literature reviews about arithmetic anxiety. Moreover, the researcher finds that there have been few attempts to investigate the worldwide literature regarding spread trends, the most significant researchers, the present growth areas with the greatest need for research, and prospective advances in this field.

Given that there is a gap in the literature, thematic reviews are necessary to obtain a comprehensive understanding of this expansive and diverse research field. Based on these constellations, bibliometric analysis is the optimal method for mapping and assessing the pertinent mathematical anxiety literature published in the last two decades (2003-2022). This study provides a comprehensive overview of the three main research questions listed below.

1. How often have annual reports on the MA been published in last two decades?
2. What and who are the majority of leading publications, researchers, countries, and article publishers in the field of MA in the last two decades?
3. Which MA-related topics have been discussed most frequently in the last two decades and are increasingly important?

2. METHODOLOGY

A. Research Design

This study's research design consists of determining the database, identifying keywords that meet the study's requirements, and compiling inclusion and exclusion criteria.

In the initial phase, researchers made use of the Scopus database. Scopus is the leading database and indexer in the globe. Scopus is a database owned and maintained by Elsevier, one of the world's largest publishers of scientific publications. Scopus is currently 20% more comprehensive than Web of Science over time (del Río-Rama et al., 2020). In the second phase, researchers sought articles about math anxiety. Researchers used the Boolean "OR" between keywords in each search string to obtain enough articles about arithmetic anxiety. This investigation utilized the keywords ("mathematics anxiety" OR "math anxiety"). In the third phase, this researcher establishes criteria for determining which articles are worthy of use.

The first criterion of the researcher is the length of time since the article's publication. The articles reviewed by the researchers were published between 2003 to 2022. The second

criterion requires the researcher to identify the type of document utilized, namely the article. Non-English Review papers, book sections, proceedings, conferences, and articles will be excluded. Meanwhile, researchers ascertain the type of source for the third criterion. Journals are the resources used by researchers. Excluded sources include conferences, book series, and books. In the fourth criterion, researchers utilize English-language articles. The exclusion of non-English articles.

B. Data collection

The complete search strategy is condensed in Table 1 and utilizes the research criteria established during the research design process.

This study collected data using the approach of Bhagat et al. (2022). The initial data collection resulted in a total of 689 articles. The procedure for excluding data based on specified criteria is then carried out. In the first criterion, researchers rejected 57 articles (9.01%) because they were published outside of 2003 to 2022; in the second criterion, they disapproved 99 articles (18.57%) because they were not articles; in the third criterion, it disapproved of 18 articles (3.49%) because it was not journals; and in the fourth criterion, it disapproved of 19 articles (3.83%) because they were written in a language other than English. The final output of the data selection procedure was 496 documents exported in CSV (comma-separated value) format for bibliometric analysis by the researcher. Figure 1 presents the overall process for tracking and selecting data by the researchers.

Table 1. Inclusion and Exclusion Criteria

Criteria	Eligibility	Exclusion
Timeline	2003-2022	Before 2003
Document Type	Article	Review paper, book section, book, proceeding, conference, article in non-English
Source Type	Journal	Review
Language	English	Non-English

C. Data Analysis

The descriptive analysis describes the number of literature, general development trends, citations, and productivity. The influence of authors, articles, journals, countries, keywords, and topic trends is also assessed. Network analysis uses data visualization and scientific mapping to examine keyword co-occurrence, cluster analysis, and theme development. Researchers use Biblioshiny packages in R and VOSviewer software to assist them in analyzing data. Before presenting quantitative results, the study describes the fundamental dataset characteristics. The results of visualization research provide a comprehensive overview of the subject and a structural understanding of the most significant connections in research trends of technology adoption in higher education. Data visualization and scientific mapping are employed to conduct network analysis, which consists of 1) keyword co-occurrence examination, 2) cluster analysis, and 3) thematic evolution analysis.

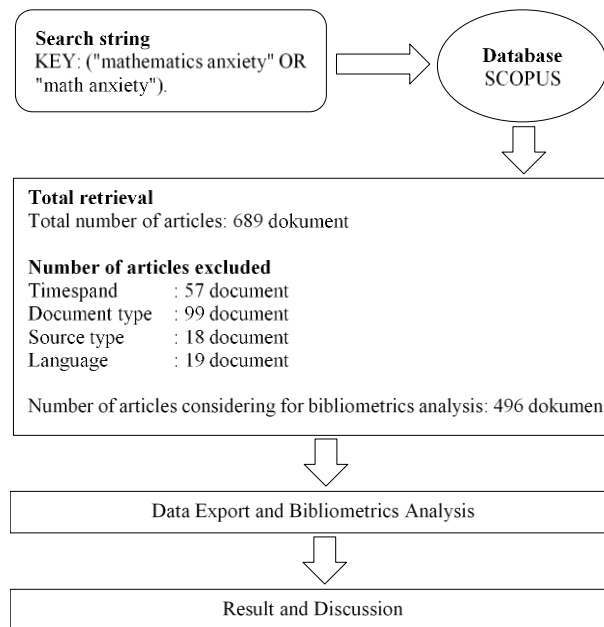


Figure 1. The article selection process in this study

3. RESULT

Applying the three research questions as a foundation, the bibliometric analysis findings are provided below.

A. Scientific articles were published between 2003 to 2022 in the ME scope.

In the twenty years prior, 496 publications were published from 248 sources, averaging 22.51 citations per document. There are 59 single-author documents out of 1159 total documents. Regarding authorship, the typical article has 3.21 contributors. Finding that 674 keywords plus words or phrases frequently appeared in the titles of an article's references, the title of the article, and 1178 Author's Keywords were determined from the data gathered. The collected data is presented in Table 2.

Figure 2 shows the growth trends and transitions of research interest concerning mathematical anxiety. Despite fluctuations in the number of publications over the past two decades, the total number has increased by 25 percent yearly. The overall research trend consists of four phases. In the initial phase (2003-2007), there were only three publications in 2003-2004 and none in 2004-2005. At this early juncture, the annual publication rate is 1.2%. In the second phase (2008-2012), the average number of publications per year increased progressively to 11.2. In 2012, fifteen publications reached their maximum quantity. Considering twelve publications in 2011, there was a decline in research trends 2011. The quantity of publications continues to rise in the third stage (2013-2017) compared to the second stage. The average number of publications per year is now 28.4, which continues to rise. In 2017, with forty-four publications, the number of publications peaked. In addition to only twenty-four publications in 2016, research tendencies declined in 2016. In the fourth phase, there are an average of 57.8 publications per year on math anxiety research. In phase four (2018-2022), 78 publications on mathematics anxiety were published in 2022, making it the golden year for mathematics anxiety publications over the last decade.

Table 2. Primary information about literature on mathematics anxiety

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	2003:2022
Sources (Journals, Books, etc.)	248
Documents	496
Annual Growth Rate %	21.27
Document Average Age	5.45
Average citations per doc	22.51
References	21714
DOCUMENT CONTENTS	
Keywords Plus (ID)	674
Author's Keywords (DE)	1178
AUTHORS	
Authors	1159
Authors of single-authored docs	59
AUTHORS COLLABORATION	
Single-authored docs	70
Co-Authors per Doc	3.21
International co-authorships %	19.76
DOCUMENT TYPES	
Article	496

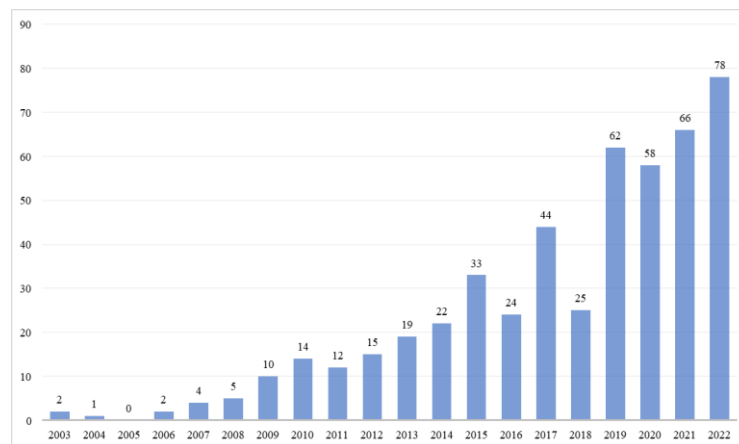


Figure 2. Annual Article Development

B. Contribution of journals in terms of productivity and impact

Figure 3 demonstrates 178 20 journals with the most mathematical anxiety-related publications. Frontiers in Psychology is the leading Journal for publishing mathematical anxiety-related articles, with 45 articles. Learning and individual differences occupy the second position with 27 articles. The Journal of educational psychology and contemporary educational psychology holds the third spot with ten articles. There are 158 publications out of 248 that publish a single article.

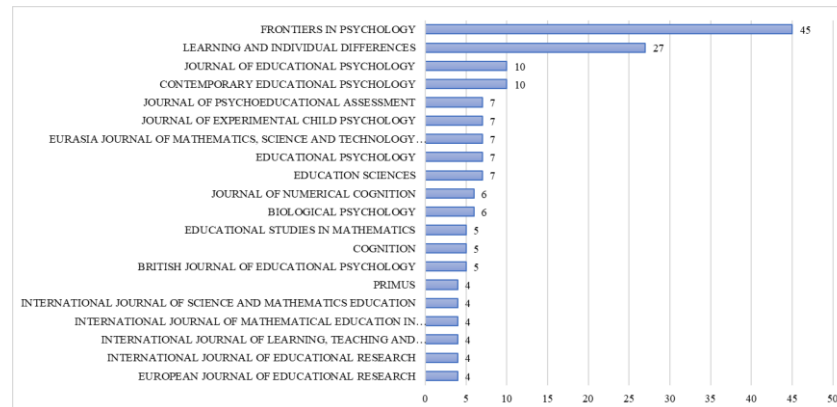


Figure 3. Most Relevant Sources

Additionally, the influence of citations indicates the author's influence. There are ten of the most influential sources regarding arithmetic anxiety. Learning and Individual Differences is the most cited Journal with 1468 citations, followed by Frontiers in Psychology with 1086 citations and Contemporary Educational Psychology with 375 citations. This study also evaluates the utilization of the h-index. The H-index has become the primary metric for assessing the importance of scientific publications (Hirsch, 2005). The two journals with the highest h-index are Learning and Individual Differences and Frontiers in Psychology. This data is displayed in Table 3 by the researchers.

In addition, it is essential to determine the development of mathematical anxiety's causes. Based on cumulative co-occurrence, nine journals were analyzed, as represented in Figure 4. According to the pattern of publication development, the total number of initial publications is insufficient. Frontiers in Psychology is a resource that has experienced significant expansion in a brief time. Despite initial publications, Learning and Individual Differences have steadily expanded. Other journals, meanwhile, are expanding slowly and have not demonstrated significant growth.

C. Contribution of authors in terms of productivity and impact

Researchers' productivity is evaluated using Lotka's Law. Based on the findings of Lotka's Law, 927 out of 1159 researchers (80%) have published at least one article. Two articles have been published by 149 researchers (13%). Forty-six researchers (4%) have produced three publications. Six researchers have published seven articles, constituting 1% of the total. Two researchers have published nine articles (0,17%), while one has published fourteen (0,08%).

Table 3. Source Impact

Element	h_index	TC	NP	PY_start
Learning and Individual Differences	19	1468	27	2009
Frontiers in Psychology	18	1086	45	2012
Contemporary Educational Psychology	7	375	10	2009
Eurasia Journal of Mathematics, Science, and Technology Education	6	176	7	2006
Journal of Educational Psychology	6	174	10	2016
Journal of Experimental Child Psychology	6	422	7	2007
Cognition	5	248	5	2010
Educational Psychology	5	194	7	2010
Educational Studies in Mathematics	5	169	5	2010
Journal of Psychoeducational Assessment	5	596	7	2009

According to Table 4, Maloney EA (14), Nez-Pea MI (13), Beilock SL (11), Mammarella

IC (9), and Passolunghi MC (9) have the highest publication rates. However, the number of citations researchers receive is inversely proportional to the number of publications they produce. The results indicated that ten out of 1159 researchers obtained more than 400 citations. With 832 citations, Maloney EA is the most cited researcher. Beilock SI received 791 citations, whereas Passolunghi MC received 438. In addition, some researchers with a limited number of publications receive substantial citations. For instance, Devine A.'s research has been cited 357 times in 4 publications.

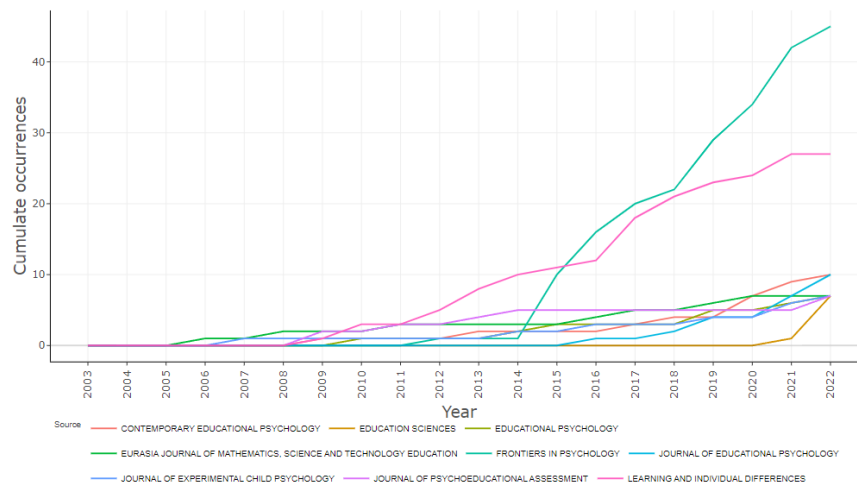


Figure 4. Source dynamics

Table 4. Authors' productivity and impact

Element	TC	NP	PY_start	Element	TC	NP	PY_start
Maloney EA	832	14	2010	Hart SA	365	6	2015
Núñez-Peña MI	299	13	2013	Kraemer DJM	94	5	2017
Beilock SI	791	11	2011	Levine SC	375	6	2012
Suárez-Pellicioni M	274	8	2013	Pizzie RG	94	5	2017
Caviola S	408	7	2015	Primi C	144	6	2014
Mammarella IC	411	9	2015	Szczygieł M	56	7	2019
Morsanyi K	139	7	2014	Tomasetto C	187	5	2014
Passolunghi MC	438	9	2011	Wang Z	189	7	2015
Ganley CM	272	6	2016	Colomé À	51	6	2015
Ramirez G	267	6	2012	Devine A	357	4	2015

D. Contribution of countries in terms of productivity and impact

In this investigation, publication output was determined by the country with the most significant impact. The number of citations is a measurement indicator. Ten countries out of 48 have many citations related to arithmetic anxiety. The United States has the most citations, with 3532, followed by Italy with 669, the United Kingdom with 555, Canada with 445, Belgium with 426, China with 425, Turkey with 417, Spain with 352, the Netherlands with 344, and Australia with 342.

As stated, the number of citations for each country is inversely proportional to the number of documents that result in varying average article citations. Belgium has the highest average citations, with 60.90, followed by the Netherlands with 43.00 and Sweden with 33.00. Table 5 presents the countries with the most significant impact regarding total and specific article citations.

Table 5. Countries producing the highest impact in terms of total citations and average

article citations			
Country	TC	Country	Average article citations
USA	3532	Belgium	60.90
Italy	669	Netherlands	43.00
United Kingdom	555	Sweden	33.00
Canada	445	Austria	32.20
Belgium	426	Brunei	31.00
China	425	USA	30.70
Turkey	417	Italy	30.40
Spain	352	India	30.00
Netherlands	344	Jordan	29.00
Australia	342	Luxembourg	29.00

E. Contribution of documents in terms of productivity and impact

An analysis of citations is conducted to ascertain which articles have the most significant citations. This investigation revealed that 411 of 496 documents (82.86%) were cited multiple times. More than 150 citations have been made to each of the ten cited documents, indicating that each document has been cited more than 150 times. The article "Mathematics Anxiety and the Affective Drop in Performance," published by Ashcraft MH in 2009, has accumulated the most citations over the past two decades. In Table 6, researchers show this data.

F. Most frequently discussed themes

Keywords are employed to define frameworks for comprehending knowledge, identify centers, and disclose patterns within fields of expertise. Keyword co-occurrence analysis effectively maps and categorizes terms derived from keywords, allowing for concisely identifying research themes. A minimum co-occurrence threshold of five was determined from 11378 keywords; 59 keywords met the criterion, and 22 irrelevant keywords were eliminated. The search visualized and categorized 37 author keywords extracted from 496 publications. Figure 5 presents how the author's keywords have been grouped into seven distinct clusters. Cluster 1 (9 items) consisted of a grouping of keywords that included "achievement," "confidence," "higher education," "math anxiety," "metacognition," "motivation," "pre-service teachers," "self-confident," and "self-efficacy." This research is more related to psychology and the educational process in higher education.

Cluster 2 (7 items) consisted of a grouping of keywords that included "assessment," "mathematics achievement," "mathematics motivation," "mathematics performance," "mathematics self-efficacy," "stem," and "test anxiety." This theme focuses on self-awareness and assessment.

Cluster 3 (6 items) consisted of a grouping of keywords that included "anxiety," "attention," "emotion regulation," "math anxiety," "math performance," and "performance." This theme focuses on the main factors that arise from mathematical anxiety.

Cluster 4 (5 items) consisted of a grouping of keywords that included "adolescence," "gender differences," "math achievement," "math self-concept," and "spatial anxiety." This theme focuses on gender and socio-emotional.

Cluster 5 (4 items) consisted of a grouping of keywords that included "gender," "math attitudes," "numeracy," and "parents." This theme focuses on academic support and mathematical skills.

Cluster 6 (3 items) consisted of a grouping of keywords that included "children," "individual differences," and "working memory." This theme focuses on differences in children's competencies.

Cluster 7 (3 items) consisted of a grouping of keywords that included "math abilities," "numerical cognition," and "primary school." The theme focuses on primary school mathematics knowledge.

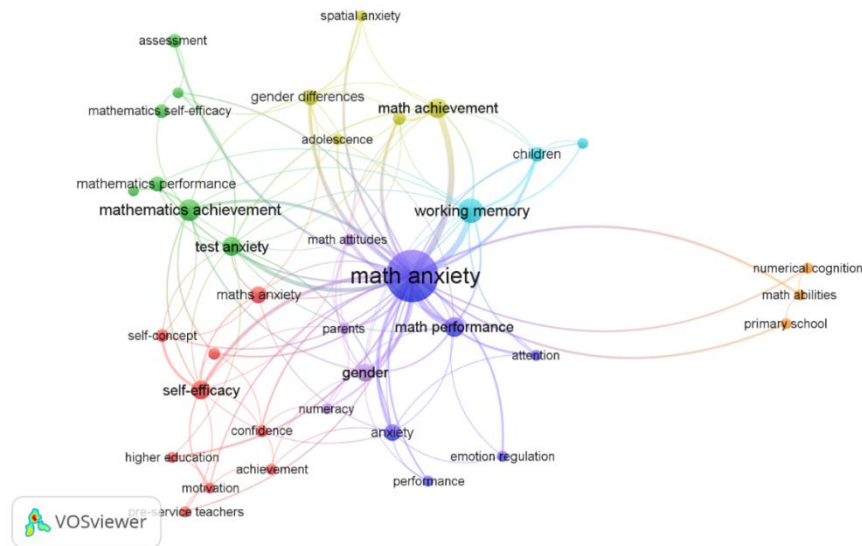


Figure 5. Co-occurrence network of author keywords

G. Thematic evaluation

It is necessary to investigate the development and evolution of themes in mathematical anxiety publications to understand research trends over the past decade comprehensively. This study illustrates the evolution of motifs according to Callon centrality and density. The analysis has been divided into three periods to identify the research group or field that best reflects the evolution of the topic over a 20-year time frame.

According to Yu et al. (2021), when investigating thematic evolution, four quadrants are depicted in strategic diagrams: (1) Niche topics are specialized topics whose density indicates solid internal relationships, but low centrality indicates poor external relationships. Consequently, this topic has a negligible impact on the field of study. This subject is essential because it is well-established and well-developed within the field. Although they are essential to the field of study, developing these topics has not been sufficient. These topics are new to the field of study and are no longer considered part of the discipline.

Table 6. Top ten most globally cited MA documents

Author	Year	Title	Total Citations	TC per Year
Ashcraft MH	2009	Mathematics Anxiety and the Affective Drop in Performance	294	19.60
Hopko DR	2003	The Abbreviated Math Anxiety Scale (AMAS): Construction, Validity, and Reliability	288	13.71
Ferla J	2009	Academic self-efficacy and academic self-concept: Reconsidering structural relationships	230	15.33
Ramirez G	2016	On the relationship between math anxiety and math achievement in early elementary school: The role of problem solving strategies	184	23.00
Wu SS	2012	Math anxiety in second and third graders and its relation to mathematics achievement	170	14.17
Hill F	2016	Maths anxiety in primary and secondary school students: Gender differences.	168	21.00

		developmental changes and anxiety specificity		
Foley AE	2017	The Math Anxiety-Performance Link: A Global Phenomenon	166	23.71
Imbo I	2007	The development of strategy use in elementary school children: Working memory and individual differences	163	9.59
Krinzinger H	2009	Math Anxiety and Math Ability in Early Primary School Years	160	10.67
Vukovic RK	2013	Mathematics anxiety in young children: Concurrent and longitudinal associations with mathematical performance	155	14.09

This study divided the 2003–2022 timespan into three sub-periods: 2003–2010, 2011–2016, and 2017–2022. Each sub-period analysis unit was comprised of author-related keyphrases. Five significant motifs are depicted in Figure 6 for the first time slice (2003-2010). Math anxiety, mathematics anxiety, and mathematical anxiety are significant themes that have matured and become essential topics with a high centrality but low density. There is no well-developed topic with high centrality and density in this time slice 1.

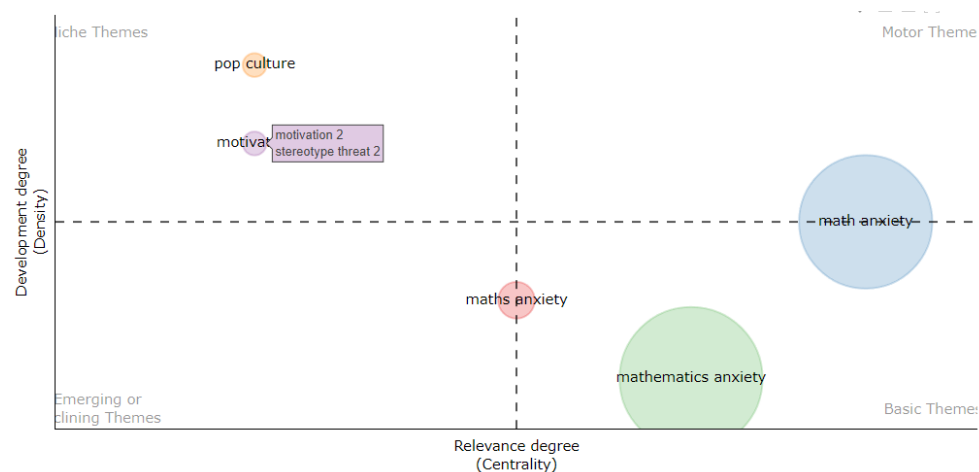


Figure 6. Thematic Diagram 2003-2010

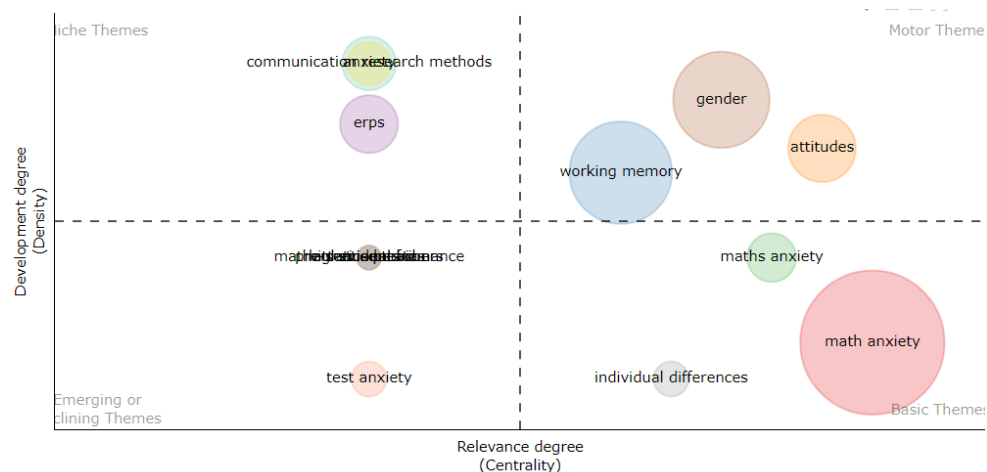


Figure 7. Thematic Diagram 2011-2016

In the past six years, there has been a substantial shift in the research focus in this field. The second time slice (2011-2016) depicted in Figure 7 contains eleven significant motifs.

Throughout the year, gender, attitudes, and working memory emerged as major motor themes in this study. Emerging themes, such as individual differences, are novel themes that become stable but sparse. In contrast to the specialized theme, research on anxiety assessments appears to be a peripheral topic. Despite being highly developed, erps and communication research methods were presented as marginal topics in the final quadrant.

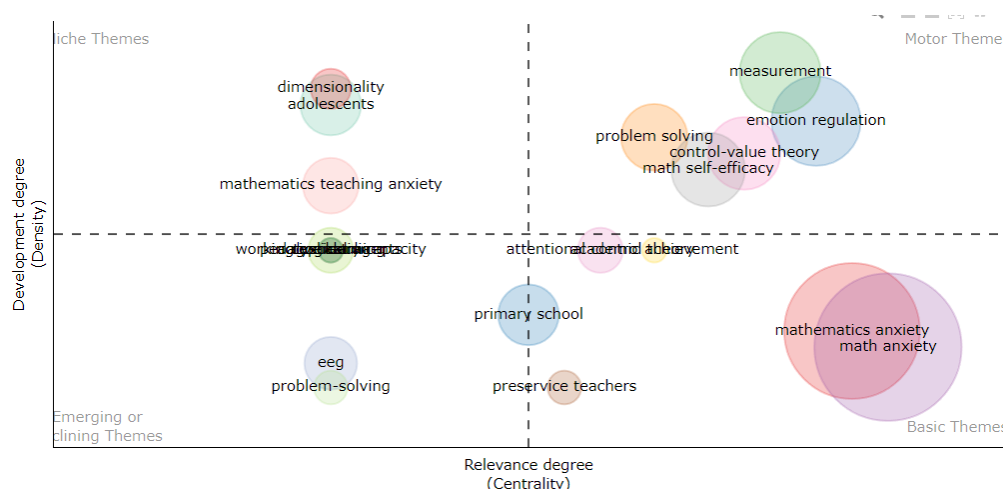


Figure 8. Thematic Diagram 2017-2022

In time slice 3 (2017-2022), numerous new themes, such as measurement, problem-solving, emotion regulation, control-value theory, and math self-efficacy, appear well-developed and significant throughout this year, as indicated by their high centrality and density. Primary school and pre-service instructors continue to be cross-cutting topics in recent years. Mathematics anxiety and mathematics anxiety remain this year's central themes. Emerging themes include, for instance, problem-solving, a theme with low density and centrality. In niche themes, dimensionalism received increased attention from researchers and appeared to be a highly developed subject. In this period, adolescent and mathematics teaching anxiety became a minor theme.

4. DISCUSSION

This study aims to investigate the development and evolution of mathematical anxiety research. The findings of this investigation provide extensive insight into the improvement of mathematics education. This study reveals significant advancements in mathematics anxiety research. Since 2003, the number of articles published in the last two decades reached a significant level for the first time in 2013. The presence of the COVID-19 pandemic is a significant factor in expanding research in this area. Online learning negatively impacts mathematics learning during the pandemic (Khasawneh et al., 2021).

In answering the second research question, it is essential to remember that some journals receive a significant number of citations from multiple publications. Lotka Law indicates that Maloney EA has the most significant rate of publication. In addition to author productivity, the influence of authors based on citations is evaluated. Considering 832 citations, Maloney EA is the author with the most citations. Intriguingly, the findings of this analysis indicate that the top 10 most-cited articles do not include the researchers with the highest number of citations. It occurs as a result of... In terms of countries that contribute to mathematics anxiety research, the United States is the most influential. Consequently, the USA has become a leader in mathematics academic research. In addition, among countries that have addressed mathematics anxiety, Belgium has the highest average citations.

Regarding the third question, researchers must acquire a deeper comprehension of the most crucial research streams. Researchers divided the detected keywords into seven

clusters to better comprehend the different research streams. Recent studies on psychology and academic processes in higher education have substantially affected mathematics anxiety research. Although math anxiety negatively affects students (Gabriel et al., 2020), teachers' math anxiety is considered a source of low pupil preparation (Szczygieł, 2020). According to Ramirez et al. (2018), teachers' math anxiety and the use of specific teaching strategies can influence students' math performance and their perceptions of what their teachers believe about mathematics. Changing how a teacher thinks about mathematics is crucial for molding student perception. In the findings of Vakili & Pourrazavy (2017), teachers who are angry, exhausted, and aggressive, as well as students who have bad tempers, create a hostile and unpleasant classroom environment that instills dread in students.

The theme "the main factors for the emergence of mathematical anxiety" demonstrates the significance of addressing this issue in learning. According to researchers, math apprehension negatively influences student motivation (Pollack et al., 2021). According to the findings of Ferguson et al. (2015) study, individuals with a high level of math anxiety demonstrated poorer direction, more significant spatial and general anxiety, and poorer performance on small- and large-scale spatial skill behavioral tests. Self-efficacy in math plays a significant role in overcoming math anxiety (Rozgonjuk et al., 2020). Khasawneh et al. (2021) found that increased math confidence, values, and self-efficacy can assist in overcoming math apprehension and enhancing performance. The teacher must therefore address the cognitive and affective components of student anxiety (Lailiyah et al., 2021).

Mathematics research has addressed the theme of elementary school mathematics knowledge. The results demonstrated that teachers' math anxiety is one factor that hinders students' math learning and can cause students to deviate from the path when they begin learning math in elementary school (Schaeffer et al., 2021). In addition, the maternal education level is the most accurate predictor of the arithmetic performance of five- and six-year-olds (Bellon et al., 2022). Ineffective math learning can also be ascribed to missed opportunities that prevent students from acquiring the necessary knowledge (Brewster & Miller, 2020).

5. CONCLUSION

Over the past two decades, specifically during the COVID-19 pandemic, there has been a substantial increase in research on math anxiety. The increase in the number of studies demonstrates that the COVID-19 pandemic has substantially affected mathematics education. The findings of this study indicate that math anxiety requires intensive attention and strategies to reduce math anxiety in learning. *Frontiers in Psychology* is the largest publisher of research findings on arithmetic anxiety. Maloney EA has become the most influential researcher with citations and publications. The United States has the highest quantity of citations. Mathematical anxiety research contains a variety of research themes. By introducing highly cited articles, active journals, leading authors, and themes, the results may be helpful for future research guidance.

There are several limitations to this investigation. First, we only search the Scopus database, not the Web of Science, Google Scholar, EBSCO, ERIC, Proquest, and Dimensions databases. Second, because English is the most frequently used language for publishing academic literature worldwide, only publications written in English are considered by researchers. Since the data is only extracted from one Scopus database and only in English, it is straightforward to overlook important documents indexed in different databases.

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