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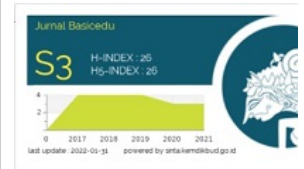


- [HOME](#) [ABOUT](#) [LOGIN](#) [SEARCH](#) [CURRENT](#) [ARCHIVES](#) [ANNOUNCEMENTS](#) [AUTHOR INDEX](#) [TITLE INDEX](#)

Home > Vol 6, No 6 (2022)

Jurnal Basicedu

Basicedu Journal is a journal which is managed by the Study Programe of Elementary Teacher Education in the Faculty of Education Universitas Pahlawan Tuanku Tambusai. Basicedu Journal already has p-ISSN 2580-1147. Basicedu Journal publishes the result of literature studies as well as research result in the scope of basic education. Frequency Journal is 6 issues per year (February, April, June, August, October, December). Accreditation Journal is SINTA 3 SK Nomor 148/M/KPT/2020 3 August 2020



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Citation : Sheet1

	Semua	Sejak 2017
Kutipan	13728	13707
indeks-h	41	41
indeks-i10	334	333

Sheet1

Announcements

No announcements have been published.

[More Announcements...](#)

Vol 6, No 6 (2022): In Press

Table of Contents

Articles

- Literasi Digital dan Pembelajaran Sastra Berpaut Literasi Digital di Tingkat Sekolah Dasar
Dipa Nugraha PDF 9230-9244
- Pendidikan Kecakapan Hidup pada Sekolah Dasar Berbasis Literasi Ekonomi
Muhammad Rijal Shafar, Muhammad Dinar, Muhammad Hasan, Muhammad Ihsan Said Ahmad, Tuti Supatminingsih PDF 9245-9255
- Pengembangan e-book Sebagai Bahan Ajar Pendidikan Jasmani Kesehatan dan Rekreasi
Oka Irmade, Jumanto Jumanto PDF 9256-9263
- Penanaman Sikap Tanggung Jawab dan Kepedulian melalui Pembelajaran PKn di Sekolah Dasar
Irwan Irwan, Jufri Agus, Jeki Saputra PDF 9264-9273
- Kriteria Bahan Bacaan Literasi Berdasarkan Perkembangan Moral Siswa Sekolah Dasar dan Relevansinya dengan Cerita Rakyat Betawi
Syarif Hidayatullah, Nur Aini Puspitasari, Trie Utari Dewi PDF 9274-9284

OPEN JOURNAL SYSTEMS

INFORMATION JOURNAL

- [Editorial Team](#)
- [Peer Reviewers](#)
- [Focus and Scope](#)
- [Author Guidelines](#)
- [Article Processing Charge](#)
- [Open Access Policy](#)
- [Peer Review Process](#)
- [Publication Ethics](#)
- [Screening Plagiarism](#)
- [Journal Licence](#)
- [Abstracting & Indexing](#)
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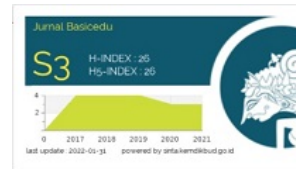
[Home](#) > [About the Journal](#) > [Editorial Team](#)

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indeks-h	41	41
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[HOME](#) [ABOUT](#) [LOGIN](#) [SEARCH](#) [CURRENT](#) [ARCHIVES](#) [ANNOUNCEMENTS](#) [AUTHOR INDEX](#) [TITLE INDEX](#)

Home > Archives > Vol 6, No 5 (2022)

Vol 6, No 5 (2022)

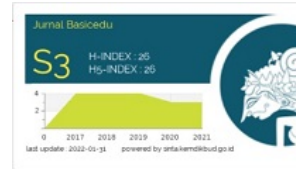
Pages 7664-8835

DOI: <https://doi.org/10.31004/basicedu.v6i5>

Table of Contents

Articles

- Analisis Pembentukan Karakter Gemar Membaca Siswa Menggunakan Buku Cerita Bergambar Wayang Sukuraga di Kelas Rendah PDF
7664-7673
Kamalia Siska Dewi, Din Azwar Uswatun, Astri Sutisnawati, Ajat Sudarjat, Jhon Sukarja Suhendra Winara
- Penerapan Pembelajaran Tematik Integratif Berbasis Saintifik di Masa Pandemi Covid-19 PDF
7674-7682
Nur Ainun Lubis
- Application of Role Playing Techniques to Increase Students' Learning Motivation in the New Normal Period PDF
7683-7689
Muhammad Junaedi Mahyuddin, Fitriyanti Sulaiman, M Yunus Sudirman, Riska Riska, Yanti Yanti
- An Analysis of Translations Techniques by Using (GT) Google Translate's English into Indonesia in English Simple Sentences PDF
7690-7699
Abd. Syakur, Sulistyanyingsih Sulistyanyingsih
- Pengaruh Metode Pembelajaran Inside-Outside Circle Berbasis Media Video terhadap Hasil Belajar IPA Kelas V PDF
7700-7706
Fani Yantik, Heru Subrata
- Peningkatan Keterampilan Membaca Permulaan Siswa melalui Kartu Kata Berbasis Wayang Sukuraga PDF
7707-7715
Hani Mayang Sari, Din Azwar Uswatun, Arsyi Rizqia Amalia, Siti Mariam, Erni Yohana
- Meta Analisis Komparasi Model Discovery Learning dengan Problem Based Learning terhadap Hasil Belajar Kognitif Siswa Sekolah Dasar PDF
7716-7723
Atik Tri Susilowati, Adi Winanto
- Analisis Pelaksanaan Pembelajaran Naratif Eksperensial untuk Meningkatkan Karakter di Sekolah Dasar PDF
7724-7734
Wawan Akbar, Deny Setiawan, Anita Yus
- Pengaruh Model Pembelajaran Kooperatif dan Kreativitas terhadap Hasil Belajar IPS di Sekolah Dasar PDF
7735-7742
Dedi Hidayat, Samsidar Tanjung, Adi Sutopo
- The Role of Taklim Assembly for Creating Education Character in Early Childhood PDF
7743-7749
Bahagia Bahagia, Leni Muniroh, Abdul Karim Halim, Ritzkal Ritzkal, Rimun Wibowo, M. Azhar Al-Wahid, Zakky Muhammad Noor
- Pengembangan Multimedia Interaktif pada Pembelajaran Tematik untuk Meningkatkan Hasil Belajar Siswa Sekolah Dasar PDF
7750-7757
Wahyu Rahmadhani, Sardjijo Sardjijo, Murnaria Manalu
- Peningkatan Kualitas Guru, Sebanding dengan Peningkatan Pendidikan? PDF
7758-7767
Arya Setya Nugroho, Suryanti Suryanti, Wiryanto Wiryanto
- Analisis Model Pembelajaran SAVI pada Era Society 5.0 di Madrasah Tsanawiyah PDF
7768-7774



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	Semua	Sejak 2017
Kutipan	13728	13707
indeks-h	41	41
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Farida Suri, Daulat Saragi, Reh Bungana Br Perangin-angin

Kemampuan Berpikir Tingkat Tinggi Mahasiswa melalui Hybrid Learning

Kurratul Aini, Ahmad Yasid

PDF

7775-7781

Kesiapan Sekolah dalam Menghadapi Pertemuan Tatap Muka (PTM) 100% Berdasarkan Hasil Evaluasi Penyelenggaraan PTMT di Jenjang Pendidikan Dasar

Palupi Raraswati, Meliyanti Meliyanti, Sani Aryanto

PDF

7782-7796

Pengalaman Para Guru dalam Melaksanakan Pembelajaran Setelah Berakhirnya Pemberlakuan Pembatasan Kegiatan Masyarakat

Carolus Borromeus Mulyatno

PDF

7997-7805

Peran Pendidikan dalam Menangkal Penyebab Radikalisme dan Ciri Radikalisme

Purwati Purwati, Ace Suryadi, Kama Abdul Hakam, Cece Rakhmat

PDF

7806-7814

Pengaruh Model Make A Match pada Topik Bangun Datar terhadap Kemampuan Berpikir Kritis Siswa di Sekolah Dasar

Danti Rahmasari, Ishaq Nuriadin

PDF

7815-7821

Pengaruh Penggunaan Media Scrapbook terhadap Motivasi Belajar Peserta Didik pada Mata Pelajaran PKn Sekolah Dasar Islam Terpadu

Juli Asima Rambe, Erika Erika, Nancy Angelia Purba

PDF

7822-7830

Pengaruh Media Pembelajaran Wordwall terhadap Motivasi Belajar IPS Kelas IV

Septariawan Prasetya Permana, Kasrman Kasrman

PDF

7831-7839

Sinergi Peserta Didik dalam Proyek Penguatan Profil Pelajar Pancasila

Mery Mery, Martono Martono, Siti Halidjah, Agung Hartoyo

PDF

7840-7849

Kepemimpinan Kepala Sekolah dalam Menciptakan Budaya Sekolah yang Positif di Era Revolusi Industri 4.0

Yayu Sri Rahayuningsih, Sofyan Iskandar

PDF

7850-7857

Strategi Guru dalam Menumbuhkan Kemandirian Belajar Siswa Sekolah Dasar

Servista Bukit, Reh Bungana Br Perangin-Angin, Abdul Murad

PDF

7858-7864

Study Etnomatematika Betangker pada Acara Pernikahan di Desa Nanga Mahap

Saidati Saidati, Dewi Risalah, Sandie Sandie, Saiful Bahri, Emi Tipuk Lestari

PDF

7865-7871

Pembelajaran Matematika Selama Masa Pandemi di Sekolah Dasar

Luthfi Hamdani Maula

PDF

7872-7878

Analisis Kemampuan Penalaran dalam Soal Pemecahan Masalah Matematika Ditinjau dari Self-Confidence melalui Model Pembelajaran Discovery Learning

Howin Hendria Santana, Ali Sunarso, Scholastika Mariani

PDF

7879-7887

Analisis Nilai Karakter melalui Media Animasi Fabel dalam Pembelajaran Bahasa Indonesia pada Siswa Sekolah Dasar

Sarah Annisya, Irwan Baadilla

PDF

7888-7895

Pengembangan E-Modul Interaktif Materi Penampakan Alam Indonesia di Sekolah Dasar

Shafira Putri Salsabila, Moh Balya Ali Syaban

PDF

7896-7905

Pengaruh Keikutsertaan Anak di Pendidikan Al-Qur'an (TPQ) terhadap Prestasi Belajar Pendidikan Agama Islam (PAI) di Sekolah Dasar

Faizatur Rohmah, Praptiningsih Praptiningsih, Alfian Eko Rochmawan

PDF

7906-7912

Upaya Meningkatkan Hasil Belajar Matematika Materi Perkalian Menggunakan Garis Matematika dengan Model Problem Based Learning

Rachmad Agus Hidayat, Roesminingsih Roesminingsih, Agus Suprijono

PDF

7913-7922

Hubungan Perhatian Orang Tua terhadap Motivasi Siswa Broken Home Sekolah Dasar

Zakiah Nur Fiddini, Zulfadewina Zulfadewina

PDF

7923-7933

Peningkatan Kedisiplinan dan Hasil Belajar Siswa Mata Pelajaran PKn Kelas II Sekolah Dasar melalui Model Pembelajaran Problem Based Learning

Suluh Prayogo

PDF

7934-7940

Pengaruh Model Pembelajaran Brain Based Learning terhadap Kemampuan Menulis Karangan Argumentasi Peserta Didik Sekolah Dasar

Andini Sasabila Istiqomatul Yahya, Nani Solihati

PDF

7941-7949

Visitors

See mo

	1,08M		35		4
	10,679		35		4
	10,196		34		4
	6,161		33		4
	1,747		25		4
	1,326		25		4
	1,196		24		3
	928		24		3
	751		24		3
	705		24		3
	538		23		3
	479		22		3
	473		22		3
	447		22		3
	372		22		3
	350		22		3
	250		21		3
	249		21		3
	242		19		3
	229		19		3
	223		17		2
	223		17		2
	212		16		2
	210		15		2
	208		14		2
	184		13		2
	146		12		2
	128		12		2
	124		12		2
	111		11		2
	111		11		1
	102		11		1
	97		11		1
	84		10		1
	80		10		1
	80		10		1
	75		10		1
	70		9		1
	64		9		1
	61		8		1
	58		8		1
	56		8		1
	53		8		1
	53		8		1
	51		8		1
	49		8		1
	48		7		1
	46		7		1
	44		7		1
	42		7		1
	42		6		1
	42		6		1
	40		6		1
	40		5		1
	36		4		1
	36		4		1

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- » Subscribe

JOURNAL CONTENT

Search

Search Scope

All

Search

Browse

- » By Issue
- » By Author
- » By Title

FONT SIZE

JOURNAL HELP

Pengaruh Fishbone Diagram Terhadap Kemampuan Literasi Membaca Peserta Didik di Sekolah Dasar <i>Nurul Mutiara Meisya, Yamin Yamin</i>	PDF 7950-7957
Pengaruh Metode Demonstrasi Berbantuan Media Video terhadap Minat dan Hasil Belajar PPKn Siswa Kelas V <i>Naufal Zaky, Deny Setiawan, Sriadhi Sriadhi</i>	PDF 7958-7969
Analisis Kepemimpinan Kepala Sekolah di Sekolah Dasar <i>Dita Prihatna Wati, Nur Wahyuni, Arum Fatayan, Aska Amalia Bachrudin</i>	PDF 7970-7977
Penguatan Karakter Cinta Tanah Air melalui Tari Narantika Rarangganis <i>Jajang Hendar Hendrawan, Lili Halimah, Kokom Kokom</i>	PDF 7978-7985
Pengembangan Model Pembelajaran Teaching Factory <i>Nurhasanah Nurhasanah, Eeng Ahman, Syamsu Yusuf</i>	PDF 7986-7993
Pengaruh Penerapan Strategi Pembelajaran Giving Question and Getting Answer terhadap Hasil Belajar IPA di Sekolah Dasar <i>Siti Fathonah, Dibrina Raseuki Ginting</i>	PDF 7994-8004
Kemampuan Kognitif dalam Karya Gambar Tema Budaya Lokal Kudus pada Siswa Sekolah Dasar <i>Roufatus Salma, Nur Fajrie, Khamdun Khamdun</i>	PDF 8005-8017
Pengembangan Media Kado Pecah pada Materi Pecahan Senilai di Sekolah Dasar <i>Mufidah Mufidah, Yurni Lahinta, Akina Akina, Azizah Azizah, Nuraini Nuraini, Khairunnisa Khairunnisa</i>	PDF 8018-8025
Pengaruh Model Pembelajaran Mind Mapping terhadap Hasil Belajar PPKn Siswa Sekolah Dasar <i>Reza Nurrachmawati, Istaryatiningtias Istaryatiningtias</i>	PDF 8026-8032
Efektivitas Pemberian Kuis Menggunakan Aplikasi Google Form pada Pembelajaran Biologi terhadap Hasil Belajar Siswa <i>Selvi Sinta Wahyuni, Efrida Pima Sari Tambunan</i>	PDF 8033-8039
Pengaruh Penerapan Metode Group to Group Exchange (GGE) terhadap Hasil Belajar IPS pada Siswa Kelas IV <i>Meilani Ayu Lestari, Desak Made Darmawati</i>	PDF 8040-8046
Pengembangan Permainan Engklek Sirkuit untuk Meningkatkan Capaian Perkembangan Motorik Kasar Anak Usia 5-6 Tahun <i>Nurliza Zuhra, Rosmala Dewi, Syarifah Syarifah</i>	PDF 8047-8060
Peningkatan Hasil Belajar Bahasa Arab melalui Penggunaan Media Power Point <i>Nurul Afifah, Akmal Walad Ahkas</i>	PDF 8061-8068
The Evaluation of Career Centre Management at Health Colleges: A CIPP Model Approach <i>Putu Gede Subhaktiyasa, I Gede Ratnaya, Muhamad Nazim, Bayangkari Bayangkari, Made Ani Suprpta</i>	PDF 8069-8077
The Effect of Internal Training and Obstacles to Music Teachers, Teaching Competency Improvement Effort <i>Dicky Aji Pratama, Reza Fathurrahman</i>	PDF 8078-8088
Analisis Upaya Guru dalam Meningkatkan Keterampilan Calistung Siswa Sekolah Dasar <i>Siti Herdawati, Mahmudin Mahmudin, Hikmatu Ruwaida</i>	PDF 8089-8096
Pengembangan Media Augmented Reality pada Materi Pengenalan Planet dan Benda Langit Pembelajaran IPA Sekolah Dasar <i>Muhammad Fadhil Iskandar, Mayarni Mayarni</i>	PDF 8097-8105
Komentar dr. Tirta pada Postingan Instagram terkait Kinerja Pemerintah dalam Penanganan Covid-19 di Indonesia dan Pemanfaatannya dalam Pembelajaran Bahasa <i>Westi Septia Atrabu, Novia Juita</i>	PDF 8106-8114
Implementasi Gerakan Literasi Sekolah melalui Model Problem Based Learning Siswa Kelas Sekolah Dasar <i>Devita Sa'diyah, Hendratno Hendratno, Heru Subrata</i>	PDF 8115-8130
Analisis Model Pembelajaran Inkuiri Terbimbing terhadap Minat Belajar Matematika Siswa Sekolah Dasar <i>Priska Anggita Pramudya, Safrul Safrul</i>	PDF 8131-8138

INFORMATION

- » For Readers
- » For Authors
- » For Librarians

Pengaruh Bimbingan Orang Tua terhadap Hasil Belajar IPA Sekolah Dasar <i>Nur Syamsiah Ramdhani, Rudy Gunawan</i>	PDF 8139-8145
Pengaruh Model NHT dengan Media Video terhadap Hasil Belajar Siswa Sekolah Dasar <i>Heni Juliawati, Desak Made Darmawati</i>	PDF 8146-8153
Pengembangan LKPD Interaktif Berbasis Liveworksheet untuk Meningkatkan Hasil Belajar IPS Sekolah Dasar <i>Ikhlahsul Amalia N.F., Maria Veronika Roesminingsih, Muhammad Turhan Yani</i>	PDF 8153-8162
Pengembangan Model Pengelolaan Pendidikan Karakter di Pesantren Berbasis Tradisi dan Tadzkirah <i>M. Aditya Firdaus, Siti Badriah, Bambang Syamsul Arifin, Aan Hasanah</i>	PDF 8163-8174
Pembelajaran Matematika Polinomial Berbasis STEAM PjBL Menumbuhkan Kreativitas Peserta Didik <i>Fitri Ayuningsih, Siti Malikhah, Muh Rifki Nugroho, Winarti Winarti, Budi Murtiyasa, Sumardi Sumardi</i>	PDF 8175-8187
Konsep Bangun Datar Sekolah Dasar pada Struktur Candi Pari Sidoarjo <i>Ikawati Ikawati, Mahardika Darmawan Kusuma Wardana</i>	PDF 8188-8198
Hubungan Self Regulated Learning dengan Kejenuhan Belajar Online <i>Anisa Aprilina, Rahmiwati Marsinun</i>	PDF 8199-8204
Penerapan Model Pembelajaran Problem Based Learning untuk Meningkatkan Kemampuan Berpikir Kreatif Siswa <i>Inggit Puspita Ningrum, Rahmiwati Marsinun</i>	PDF 8205-8214
Analisis Peran Pola Pengasuhan Orang Tua dalam Perkembangan Literasi Siswa Sekolah Dasar <i>Muhammad Qoiri Fahmi, Waspodo Tjipto Subroto, Agus Suprijono</i>	PDF 8215-8227
Pengembangan Lembar Kerja Peserta Didik Berbasis Role Playing pada Pembelajaran Tematik Terpadu di Sekolah Dasar <i>Zelmi Kaffa, Yalvema Miaz</i>	PDF 8228-8238
Pencapaian Kompetensi Literasi Sains Mahasiswa Pendidikan Guru Sekolah Dasar dalam Praktik Pembelajaran Daring Berorientasi Masalah <i>Mesi Yulia Sari Insani, Yanti Fitria</i>	PDF 8239-8247
Analisis Implementasi Kurikulum Merdeka di Sekolah Penggerak Sekolah Dasar <i>Ineu Sumarsih, Teni Marliyani, Yadi Hadiyansah, Asep Herry Hernawan, Prihantini Prihantini</i>	PDF 8248-8258
Pengembangan Media Komik untuk Pembelajaran IPA Tema Berbagai Pekerjaan Kelas IV Sekolah Dasar <i>Emilia Emilia, Ratnawati Ratnawati, Muhammad Subhan</i>	PDF 8259-8267
Best Practice Siswa Kelas 4C Berdasarkan Film Pendek Inspiratif "Kisah Anak Penjual Es Nanas" Berbasis Karakter dan Nilai Profil Pelajar Pancasila <i>Ineu Sumarsih, Tatang Muhtar</i>	PDF 8268-8284
Upaya Meningkatkan Hasil Belajar Keragaman Budaya Indonesia Melalui Tiktok pada Kelas V Sekolah Dasar <i>Den Ayu Putri Pandan Sari, Ita Kurnia</i>	PDF 8285-8295
Keterampilan Proses Sains Siswa Sekolah Dasar dalam Pembelajaran IPA Menggunakan Model Pembelajaran Inkuiri <i>Yuni Angelia, Supeno Supeno, Suparti Suparti</i>	PDF 8296-8303
Implementasi Penguatan Pendidikan Karakter (PPK) melalui Budaya Kelas di Sekolah Dasar <i>Resa Kurniawati, Arsyi Rizqia Amalia, Irna Khaleda N</i>	PDF 8304-8313
Pengembangan Media Flipbook Berbasis Fabel untuk Meningkatkan Pemahaman Pesan Moral pada Peserta Didik Kelas Sekolah Dasar <i>Nidar Yusuf, Hendra Setyawan, Sri Immawati, Gunawan Santoso, Muhammad Usman</i>	PDF 8314-8330
Pengembangan E-LKPD dengan Pendekatan Sainifik untuk Meningkatkan Keterampilan Berpikir Kritis Siswa Sekolah Dasar dalam Pembelajaran IPA <i>Robi Hendrawan Joko Wahono, Supeno Supeno, Moh. Sutomo</i>	PDF 8331-8340
Peran Guru dalam Menanamkan Sikap Nasionalisme terhadap Peserta Didik Sekolah Dasar	PDF 8341-8348

Nursamsi Dj, Jumardi Jumardi

Penguatan Pendidikan Karakter Peserta Didik melalui Pendekatan Pembelajaran Kontekstual di Sekolah Dasar <i>Aminah Aminah, Hairida Hairida, Agung Hartoyo</i>	PDF 8349-8358
Model Pembelajaran Student Facilitator and Explaining (SFE) dalam Penguasaan Konsep IPA pada Siswa Sekolah Dasar <i>Nurjanah Nurjanah, Tri Isti Hartini</i>	PDF 8359-8367
Perilaku Pro-Lingkungan Peserta Didik Berdasarkan Media Pembelajaran dan Gender <i>Sisean Baga, Esthy Reko Astuty, I Made Astra, Budi Aman Budi Aman, Uswatun Hasanah</i>	PDF 8368-8380
Efektivitas Materi Pendidikan Agama Islam terhadap Peningkatan Shalat Lima Waktu Siswa Sekolah Dasar <i>Endah Wahyuningsih, Suhadi Suhadi, M. Fathurrohman</i>	PDF 8381-8387
Pengaruh Program Literasi terhadap Hasil Belajar Bahasa Indonesia Siswa Sekolah Dasar <i>Nadiya Putri Utami, Prima Gusti Yanti</i>	PDF 8388-8394
Pemanfaatan Information And Communication Technology di Madrasah Ibtidaiyah <i>Yuli Supriani, Supiana Supiana, Qiqi Yuliaty Zaqiah</i>	PDF 8395-8404
Pengaruh Model Problem Based Learning Berbantuan Fishbone Materi Biologi terhadap Kemampuan Berpikir Kreatif Siswa <i>Safira Ramadhani, Khairuna Khairuna</i>	PDF 8405-8413
Konsep Pemeliharaan Alam dan Manusia Implikasinya terhadap Kemajuan Pendidikan Islam pada Jenjang Madrasah Ibtidaiyah <i>Atik Rosanti, Nurwadjah Ahmad, Andewi Suhartini</i>	PDF 8414-8422
Korelasi Antara Perhatian Orang Tua dengan Disiplin Belajar Siswa pada Proses Pembelajaran di Madrasah Ibtidaiyah <i>Amiratul Azizah, Joko Subando, Indah Nurhidayati</i>	PDF 8423-8430
Pengembangan Buku Teks Bahasa Indonesia Berbasis Media Komik Digital Bermuatan Keterampilan Berpikir Kritis <i>Zenzen Zakiyah, Martin Arisandi, Syifa Delaneira Oktora, Arif Hidayat, Karlimah Karlimah, Erwin Rahayu Saputra</i>	PDF 8431-8440
Pengaruh Pemberian Reward and Punishment terhadap Motivasi dan Prestasi Belajar Matematika Siswa Sekolah Dasar <i>Al Fauzi Nurrohmatulloh, Ima Mulyawati</i>	PDF 8441-8449
Developing Quizizz-Based Learning Media on Digestive System Materials <i>Ayu Indah Lestari, Khairuna Khairuna</i>	PDF 8450-8457
The Use of Code-Switching in English as A Foreign Language Classrooms in Teacher's Perspective <i>Diah Yovita Suryarini</i>	PDF 8458-8465
Developing Social Science Learning Videos in Elementary Schools During Covid-19 Pandemic <i>Friendha Yuanta, Diyas Age Larasati</i>	PDF 8466-8474
The Use of Games for Learning in Primary Schools: A Bibliometrics Analysis of The Scopus Database <i>Afib Rulyansah, Emy Yunita Rahma Pratiwi, Ribut Prastiwi Sriwijayanti, Ani Anjarwati</i>	PDF 8475-8492
Analisis dan Rekonstruksi Kegiatan Laboratorium: Pengaruh Konsentrasi Karbondioksida pada Laju Fotosintesis Hydrilla Verticillata <i>Siti Tahany Rifa Faidah, Tina Rizqiyati Rohimah, Bambang Supriatno, Sri Anggraeni</i>	PDF 8493-8505
Penguatan Karakter Kedisiplinan Melalui Pembiasaan BUDTRI di Tingkat Sekolah Dasar <i>Heni Marlinawati, Sabar Narimo, Achmad Fathoni, Minsih Minsih, Djalal Fuadi</i>	PDF 8506-8516
Dampak Rendahnya Kemampuan Berbahasa dan Bernalar terhadap Kemampuan Berpikir Kritis Siswa Sekolah Dasar <i>Nurul Hayati, Deni Setiawan</i>	PDF 8517-8528
Pembentukan Karakter Siswa Sekolah Dasar melalui Lagu Penguatan Pendidikan Karakter <i>Indy IImi Khasanah, Deni Setiawan</i>	PDF 8529-8536
Analisis Dampak Pembelajaran Daring Terhadap Hasil Belajar Siswa <i>Lulianna Marsareta Sumilat Widdv H F Rorimandev Siruru Siruru</i>	PDF 8537-8544

Penerapan Media Flash Card untuk Meningkatkan Kemampuan Kognitif dan Bahasa pada Anak Usia 4-5 Tahun <i>Nita Puspitasari, Umi Anugerah Izzati, Eko Darminto</i>	PDF 8545-8559
Korelasi Antara Konjektur dan Justifikasi Matematis terhadap Kemandirian Belajar <i>Yani Supriani, Usep Sholahudin, Giyanti Giyanti</i>	PDF 8560-8571
Pengaruh Penggunaan Media Pembelajaran Loose Part Bahan Plastik terhadap Perkembangan Bahasa dan Fisik Motorik pada Anak Usia 5-6 Tahun <i>Nur Istim, Hendratno Hendratno, Sri Setyowati</i>	PDF 8572-8584
Integrasi Nilai Keislaman pada Materi Pelestarian Kekayaan Sumber Daya Alam di Indonesia dalam Pembelajaran Tematik di Sekolah Dasar <i>Dhea Alya Danu, Izza Rohman</i>	PDF 8585-8592
Integrasi Nilai-Nilai Keislaman pada Materi Tubuhku dalam Pembelajaran Tematik Sekolah Dasar <i>Asyiyifatul Anggraini, Muhib Rosyidi</i>	PDF 8593-8599
Video Animasi Berbasis Lingkungan Sebagai Strategi Pengembangan Keterampilan Berfikir Tingkat Tinggi Anak Taman Kanak-Kanak <i>Fortina Verawati Sianturi, Nasriah Nasriah, Anita Yus</i>	PDF 8600-8613
Pengembangan Media Pembelajaran Aplikasi Mading Digital Padlet untuk Meningkatkan Motivasi dan Budaya Literasi Siswa di Sekolah Dasar <i>Nurul Hadi, Syadeli Hanafi, Suherman Suherman</i>	PDF 8614-8625
Peran Guru dalam Meningkatkan Karakter Kedisiplinan Siswa Madrasah Ibtidaiyah <i>Arniah Arniah, Ahmad Rifa'l, Miftahul Jannah</i>	PDF 8626-8634
Integrasi Nilai Akhlak pada Materi Usaha Pelestarian Lingkungan dalam Pembelajaran Tematik Sekolah Dasar <i>Adelia Nur Pratiwi, Izza Rohman</i>	PDF 8635-8640
Upaya Meningkatkan Keterampilan Membaca Pemahaman melalui Cerita Pendek Wayang Sukuraga <i>Natasya Syifa Aviani, Astri Sutisnawati, Irna Khaleda Nurmeta, Ai Surtini, Sri Novianti</i>	PDF 8641-8651
Pengembangan Komik Digital Interaktif untuk Memperkuat Kemampuan Membaca pada Materi Pengukuran Panjang dan Berat Kelas II SD <i>Fransiska Rizkiana Dewi, Eunice Widyanti Setyaningtyas</i>	PDF 8652-8665
Pengaruh Model Pembelajaran STAD Menggunakan Powerpoint Interaktif terhadap Kemampuan Kognitif Siswa pada Pembelajaran IPA di Sekolah Dasar <i>Mutya Riny, Safrul Safrul</i>	PDF 8666-8674
Pengembangan Video Klip Lagu Materi Sistem Pernapasan Manusia untuk Siswa Sekolah Dasar <i>Prajna Angger Kusuma, Gamaliel Septian Airlanda</i>	PDF 8675-8685
Efektivitas Penggunaan Media Pembelajaran IPS Berbasis Augmented Reality untuk Meningkatkan Kompetensi Pengetahuan Siswa <i>Maya Nurani Faiza, Muhammad Turhan Yani, Agus Suprijono</i>	PDF 8686-8694
Pengaruh Penggunaan Media Pop Up Book Berbasis Literasi Digital terhadap Kemampuan Membaca Dongeng Siswa Sekolah Dasar <i>Angel Nasya Yahzunka, Sri Astuti</i>	PDF 8695-8703
Pengembangan Media Pembelajaran WAKER (Wayang Kertas) Berbasis Model Apacin untuk Meningkatkan Minat Membaca Siswa Sekolah Dasar <i>Yuarnes Elkana Febrilio, Henny Dewi Koeswanti</i>	PDF 8704-8710
Analisis Pengaruh Strategi Digital Learning dan Blended Learning terhadap Prestasi ditinjau dari Perbedaan Gaya Belajar Peserta didik di SMPIT <i>Mariyatul Qiptiyah, Warsono Warsono, Sukma Perdana Prasetya</i>	PDF 8711-8719
Amanat dalam Wacana Persuasif Pencegahan Covid-19 Sebagai Sumber Belajar Bahasa Indonesia di Tingkat SMP <i>Noer Hayati, Markhamah Markhamah, Laili Etika Rahmawati</i>	PDF 8720-8735
Pengembangan Media Pembelajaran Bucergam untuk Meningkatkan Kemampuan Membaca Siswa Kelas I SD <i>Renata Christa Agustina, Henny Dewi Koeswanti</i>	PDF 8736-8745



The Use of Games for Learning in Primary Schools: A Bibliometrics Analysis of The Scopus Database

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Abstract

Elementary school learning that is integrated with games can increase student motivation in learning so that it can have a positive impact on learning outcomes. The bibliometric review used in this research aims to analyze articles that discuss the use of games at the elementary school level published in the Scopus database indexed journal for the period 2013-2022. A total of 122 articles discussing the integration of games in primary school level learning were analyzed. The review findings show that there was a significant increase in the number of publications in 2016-2021, around 77.87% of articles were published in that period. Spain and Indonesia dominate the number of publications. Four authors with 3 publications each are influential authors. Data visualization shows that this research topic can be grouped based on the type of game, type of game, subject of study, learning approach, type of learning, subject involved in research, and a number of topics that have the potential to be integrated with other topics to obtain novelty. The findings of this study can help relevant researchers to recognize research trends in the use of games for primary school learning globally and recommend directions for further research.

Keywords

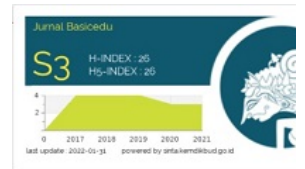
game; elementary school; bibliometric analysis

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References

- Astuti, P. (2014). Learning one-digit decimal numbers by measurement and game predicting length. *Journal on Mathematics Education*, 5(1), 35–46. <https://doi.org/10.22342/jme.5.1.1447.35-46>
- Cañabate, D., Martínez, G., Rodríguez, D., & Colomer, J. (2018). Analysing emotions and social skills in physical education. *Sustainability (Switzerland)*, 10(5). <https://doi.org/10.3390/su10051585>
- Cardella, G. M., Hernández-Sánchez, B. R., Monteiro, A. A., & Sánchez-García, J. C. (2021). Social entrepreneurship research: Intellectual structures and future perspectives. *Sustainability (Switzerland)*, 13(14). <https://doi.org/10.3390/su13147532>
- Chen, J., Yang, S., & Mei, B. (2021). Towards the sustainable development of digital educational games for primary school students in China. *Sustainability (Switzerland)*, 13(14). <https://doi.org/10.3390/su13147919>
- Cheng, Y.-M., Lou, S.-J., Kuo, S.-H., & Shih, R.-C. (2013). Investigating elementary school students' technology acceptance by applying digital game-based learning to environmental education. *Australasian Journal of Educational Technology*, 29(1), 96–110. <https://doi.org/10.14742/ajet.65>
- Chiassese, G., Fulantelli, G., Pipitone, V., & Taibi, D. (2018). Engaging primary school children in computational thinking: Designing and developing videogames. *Education in the Knowledge Society*, 19(2), 63–81. <https://doi.org/10.14201/EKS20181926381>
- Cózar-Gutiérrez, R., & Sáez-López, J. M. (2016). Game-based learning and gamification in initial teacher training in the social sciences: an experiment with MinecraftEdu. *International Journal of Educational Technology in Higher Education*, 13(1). <https://doi.org/10.1186/s41239-016-0003-4>
- Cózar-Gutiérrez, Ramón, & Sáez-López, J. M. (2016). Game-based learning and gamification in initial teacher training in the social sciences: an experiment with MinecraftEdu. *International Journal of Educational Technology in Higher Education*, 13(1), 2. <https://doi.org/10.1186/s41239-016-0003-4>
- Cronin, B. (2001). Bibliometrics and beyond: some thoughts on web-based citation analysis. *Journal of Information Science*, 27(1), 1–7



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de Queiroz, O. A., Enumo, S. R. F., & Primi, R. (2013). Children's performance with and without special needs in dynamic and in psychometric testing. *Revista Brasileira de Educacao Especial*, 19(3), 425–446. <https://doi.org/10.1590/S1413-65382013000300009>

Dewi, R., & Verawati, I. (2022). The Effect of Manipulative Games to Improve Fundamental Motor Skills in Elementary School Students. *International Journal of Education in Mathematics, Science and Technology*, 10(1), 24–37. <https://doi.org/10.46328/ijemst.2163>

Fernández-Gavira, J., Espada-Goya, P., Alcaraz-Rodríguez, V., & Moscoso-Sánchez, D. (2021). Design of educational tools based on traditional games for the improvement of social and personal skills of primary school students with hearing impairment. *Sustainability (Switzerland)*, 13(22). <https://doi.org/10.3390/su132212644>

Fernández-Montalvo, J., Peñalva, A., & Irazabal, I. (2015). Internet Use Habits and Risk Behaviours in Preadolescence. *Comunicar*, 22(44), 113–121. <https://doi.org/10.3916/C44-2015-12>

Fernández-Oliveras, A., Espigares-Gámez, M. J., & Oliveras, M. L. (2021). Implementation of a playful microproject based on traditional games for working on mathematical and scientific content. *Education Sciences*, 11(10). <https://doi.org/10.3390/educsci11100624>

Fraga-Varela Dr., F., Vila-Couñago Dr., E., & Martínez-Piñeiro Dr., E. (2021). The impact of serious games in mathematics fluency: A study in Primary Education. *Comunicar*, 29(69), 115–125. <https://doi.org/10.3916/C69-2021-10>

Fraga-Varela, F., Vila-Couñago, E., & Rodríguez-Groba, A. (2021). Serious games and mathematical fluency: A study from the gender perspective in primary education. *Sustainability (Switzerland)*, 13(12). <https://doi.org/10.3390/su13126586>

Frizzo, G. (2013). The school games as mechanisms for maintenance and elimination: A critique of the sportive logic in school. *Movimento*, 19(4), 163–180. <https://doi.org/10.22456/1982-8918.38628>

García-Ceberino, J. M., Feu, S., Gamero, M. G., & Ibáñez, S. J. (2021). Pedagogical variables and motor commitment in the planning of invasion sports in primary education. *Sustainability (Switzerland)*, 13(8). <https://doi.org/10.3390/su13084529>

Gil-Madrona, P., Cachón-Zagalaz, J., Diaz-Suare, A., Valdivia-Moral, P., & Zagalaz-Sánchez, M. L. (2014). Also want girls play: Participation of children in organized physical activity in the context no school. *Movimento*, 20(1), 103–124. <https://doi.org/10.22456/1982-8918.38070>

González-Zamar, M.-D., & Abad-Segura, E. (2021). Visual arts in the university educational ecosystem: Analysis of schools of knowledge. *Education Sciences*, 11(4). <https://doi.org/10.3390/educsci11040184>

Halloluwa, H. K. T. C., Usoof, H., & Hewagamage, K. P. (2014). Stimulating learners' motivation in primary education in Sri Lanka - A literature review. *International Journal of Emerging Technologies in Learning*, 9(1), 47–52. <https://doi.org/10.3991/ijet.v9i1.2964>

Hartanto, D., Kusmaedi, N., Ma'mun, A., & Abduljabar, B. (2021). Integrating social skills in traditional games with physical education interventions. *International Journal of Human Movement and Sports Sciences*, 9(5), 921–928. <https://doi.org/10.13189/saj.2021.090513>

Hsiao, H.-S., Chang, C.-S., Lin, C.-Y., Chang, C.-C., & Chen, J.-C. (2014). The influence of collaborative learning games within different devices on student's learning performance and behaviours. *Australasian Journal of Educational Technology*, 30(6), 652–669. <https://doi.org/10.14742/ajet.347>

Hsiao, H. S., Chang, C. S., Lin, C. Y., Chang, C. C., & Chen, J. C. (2014). The influence of collaborative learning games within different devices on student's learning performance and behaviours. *Australasian Journal of Educational Technology*, 30(6), 652–669. <https://doi.org/10.14742/AJET.347>

Jaelani, A., Putri, R. I. I., & Hartono, Y. (2013). Students' strategies of measuring time using traditional gasing game in third grade of primary school. *Journal on Mathematics Education*, 4(1), 29–40. <https://doi.org/10.22342/jme.4.1.560.29-40>

Jen-Yi, C., Chuan-His, L., & Yi-Hsin, Y. (2020). The Study of Indigenous Students' Learning Effect on Geometry Course with CPS Mobile Learning and Atayal Culture. *International Journal of Learning and Teaching*, 1–6. <https://doi.org/10.18178/ijlt.6.1.1-6>

Jiménez-García, M., Ruiz-Chico, J., Peña-Sánchez, A. R., & López-Sánchez, J. A. (2020). A Bibliometric Analysis of Sports Tourism and Sustainability (2002–2019). *Sustainability*, Vol. 12. <https://doi.org/10.3390/su12072840>

Juric, P., Bakaric, M. B., & Matetic, M. (2018). Design and implementation of anonymized social network-based mobile game system for learning mathematics. *International Journal of Emerging Technologies in Learning*, 13(12), 83–98. <https://doi.org/10.3991/ijet.v13i12.8762>

Juric, P., Bakaric, M. B., & Matetic, M. (2021). Cognitive predispositions of students for STEM success and differences in solving problems in the computer game for learning mathematics. *International Journal of Engineering Pedagogy*, 11(44), 81–94. <https://doi.org/10.3991/IJEP.V11I4.20587>

Juric, Petar, Brkic Bakaric, M., & Matetic, M. (2018). Design and Implementation of Anonymized Social Network-based Mobile Game System for Learning Mathematics. *International Journal of Emerging Technologies in Learning (IJET)*, 13(12), 83. <https://doi.org/10.3991/ijet.v13i12.8762>

Kamalodeen, V. J., Ramsawak-Jodha, N., Figaro-Henry, S., Jaggernaut, S. J., & Dedovets, Z. (2021). Designing gamification for geometry in elementary schools: insights from the designers. *Smart Learning Environments*, 8(1). <https://doi.org/10.1186/s40561-021-00181-8>

Kayumova, L. R., Gainullina, L. N., Akhmadieva, R. S., Matvienko, V. V., & Kabakhidze, E. L. (2021). Using Interactive Platform "Round" to Organize Online Leisure Activities for Children During the Pandemic. *Eurasia Journal of Mathematics, Science and Technology Education*, 17(10), 1–10. <https://doi.org/10.29333/ejmste/11182>

Martín-del-Pozo, M., García-Valcárcel Muñoz-Repiso, A., & Hernández Martín, A. (2019). Video Games and Collaborative Learning in Education? A Scale for Measuring In-Service Teachers' Attitudes towards Collaborative Learning with Video Games. *Informatics*, 6(3), 30. <https://doi.org/10.3390/informatics6030030>

Martín del Pozo, M., Basilotta Gómez-Pablos, V., & García-Valcárcel Muñoz-Repiso, A. (2017). A quantitative approach to pre-service primary school teachers' attitudes towards collaborative learning with video games: previous experience with video games can make the difference. *International Journal of Educational Technology in Higher Education*, 14(1). <https://doi.org/10.1186/s41239-017-0050-5>

Martín del Pozo, Marta, Basilotta Gómez-Pablos, V., & García-Valcárcel Muñoz-Repiso, A. (2017). A quantitative approach to pre-service primary school teachers' attitudes towards collaborative learning with video games: previous experience with video games can make the difference. *International Journal of Educational Technology in Higher Education*, 14(1), 11.



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McNicholas, P. J., Floyd, R. G., Fennimore, L. E., & Fitzpatrick, S. A. (2022). Determining journal article citation classics in school psychology: An updated bibliometric analysis using Google Scholar, Scopus, and Web of Science. *Journal of School Psychology, 90*, 94–113. <https://doi.org/https://doi.org/10.1016/j.jsp.2021.11.001>

Mee Mee, R. W., Pek, L. S., Yee Von, W., Abd Ghani, K., Tengku Shahdan, T. S., Ismail, M. R., & Subba Rao, Y. (2021). A conceptual model of analogue gamification to enhance learners' motivation and attitude. *International Journal of Language Education, 5*(2), 40–50. <https://doi.org/10.26858/ijole.v5i2.18229>

Mee Mee, R. W., Shahdan, T. S. T., Ismail, M. R., Abd Ghani, K., Pek, L. S., Von, W. Y., ... Rao, Y. S. (2020). Role of gamification in classroom teaching: Pre-service teachers' view. *International Journal of Evaluation and Research in Education, 9*(3), 684–690. <https://doi.org/10.11591/ijere.v9i3.20622>

Moron, V. B., Barbosa, D. N. F., Sanfelice, G. R., Barbosa, J. L. V., Leithardt, D. R. F., & Leithardt, V. R. Q. (2022). Executive Functions, Motor Development, and Digital Games Applied to Elementary School Children: A Systematic Mapping Study. *Education Sciences, 12*(3). <https://doi.org/10.3390/educsci12030164>

Nur, A. S., Kartono, K., Zaenuri, Z., & Rochmad, R. (2022). The learning trajectory construction of elementary school students in solving integer word problems. *Participatory Educational Research, 9*(1), 404–424. <https://doi.org/10.17275/per.22.22.9.1>

Nursyahidah, F., Putri, R. I. I., & Somakim. (2013). Supporting first grade students' understanding of addition up to 20 using traditional game. *Journal on Mathematics Education, 4*(2), 212–223. <https://doi.org/10.22342/jme.4.2.557.212-223>

Okeke, C. I. (2014). Effective home-school partnership: Some strategies to help strengthen parental involvement. *South African Journal of Education, 34*(3), 1–9. <https://doi.org/10.15700/201409161044>

Otero Saborido, F. M., Calvo Lluch, Á., & González-Jurado, J. A. (2014). Analysis of the assessment of invasion sports in elementary school. *Cultura, Ciencia y Deporte, 9*(26), 139–153. <https://doi.org/10.12800/ccd.v9i26.432>

Papanastasiou, G. P., Drigas, A. S., & Skianis, C. (2017). Serious games in preschool and primary education: Benefits and impacts on curriculum course syllabus. *International Journal of Emerging Technologies in Learning, 12*(1), 44–56. <https://doi.org/10.3991/ijet.v12i01.6065>

Perera, V. H., & Hervás-Gómez, C. (2021). University students' perceptions toward the use of an online student response system in game-based learning experiences with mobile technology. *European Journal of Educational Research, 10*(2), 1009–1022. <https://doi.org/10.12973/EUJER.10.2.1009>

Pérez, M. E. M., Guzmán Duque, A. P., & García, L. C. F. (2018). Game-based learning: Increasing the logical-mathematical, naturalistic, and linguistic learning levels of primary school students. *Journal of New Approaches in Educational Research, 7*(1), 31–39. <https://doi.org/10.7821/naer.2018.1.248>

Pires, A. C., González Perilli, F., Bakala, E., Fleisher, B., Sansone, G., & Marichal, S. (2019). Building Blocks of Mathematical Learning: Virtual and Tangible Manipulatives Lead to Different Strategies in Number Composition. *Frontiers in Education, 4*. <https://doi.org/10.3389/educ.2019.00081>

Razak, A. A., & Connolly, T. M. (2013). Using games-based learning: How it influences the learning experience and outcomes of primary school children. *International Journal of Emerging Technologies in Learning, 8*(SPL.ISSUE2), 47–54. <https://doi.org/10.3991/ijet.v8iS2.2782>

Rocha, M., & Dondio, P. (2021). Effects of a videogame in math performance and anxiety in primary school. *International Journal of Serious Games, 8*(3 SE-GaLA Conf 2020 Special Issue), 45–70. <https://doi.org/10.17083/ijsg.v8i3.434>

Sáez-López, J.-M., Sevillano-García, M. L., & Pascual-Sevillano, M. Á. (2019). Application of the ubiquitous game with augmented reality in primary education. *Comunicar, 27*(61), 66–76. <https://doi.org/10.3916/C61-2019-06>

Sahudi, U., Priyono, A., & Saputra, Y. M. (2021). Effects of ular tangga games on the development of locomotor skills in elementary school. *International Journal of Human Movement and Sports Sciences, 9*(4), 119–124. <https://doi.org/10.13189/saj.2021.091320>

Saitua-Iribar, A., Corral-Lage, J., & Peña-Miguel, N. (2020). Improving Knowledge about the Sustainable Development Goals through a Collaborative Learning Methodology and Serious Game. *Sustainability, 12*(15), 6169. <https://doi.org/10.3390/su12156169>

Santurio, J. I. M., & Fernández-Río, J. (2022). Harry Potter in Sport Education? Teacher, students and parents' views. *Sport TK, 11*. <https://doi.org/10.6018/SPORTK.463021>

Shah, S. H. H., Lei, S., Ali, M., Doronin, D., & Hussain, S. T. (2020). Prosumption: bibliometric analysis using HistCite and VOSviewer. *Kybernetes, 49*(3), 1020–1045. <https://doi.org/10.1108/K-12-2018-0696>

Sibgatullin, I. R., Korzhuev, A. V., Khairullina, E. R., Sadykova, A. R., Baturina, R. V., & Chauzova, V. (2022). A Systematic Review on Algebraic Thinking in Education. *Eurasia Journal of Mathematics, Science and Technology Education, 18*(1), 1–15. <https://doi.org/10.29333/EJMSTE11486>

Sumtsova, O., Aikina, T., Bolsunovskaya, L., Phillips, C., Zubkova, O., & Mitchell, P. (2018). Collaborative learning at engineering universities: Benefits and challenges. *International Journal of Emerging Technologies in Learning (IJET), 13*(1), 160–177.

Susman, K., & Pavlin, J. (2020). Improvements in teachers' knowledge and understanding of basic astronomy concepts through didactic games. *Journal of Baltic Science Education, 19*(6), 1020–1033. <https://doi.org/10.33225/jbse/20.19.1020>

Syaflin, H. M., Nurdin, F., Widiastuti, Syafaruddin, Lanos, M. E. C., & Syaflin, S. L. (2021). Basic locomotor motion characteristic design using games model for elementary school student. *International Journal of Human Movement and Sports Sciences, 9*(3), 560–567. <https://doi.org/10.13189/SAJ.2021.090323>

T. Alshammari, M. (2020). Evaluation of Gamification in E-Learning Systems for Elementary School Students. *TEM Journal, 8*(6), 806–813. <https://doi.org/10.18421/TEM92-51>

Tazouti, Y., Boulaknadel, S., & Fakhri, Y. (2019). JeuTICE: An arabic serious game to enhance mathematics skills of young children. *International Journal of Emerging Technologies in Learning, 14*(22), 252–265. <https://doi.org/10.3991/ijet.v14i22.11119>

Vázquez-Vílchez, M., Garrido-Rosales, D., Pérez-Fernández, B., & Fernández-Oliveras, A. (2021). Using a cooperative educational game to promote pro-environmental engagement in future teachers. *Education Sciences, 11*(11). <https://doi.org/10.3390/educsci11110691>

Xenofontos, C., & Alkan, S. H. (2022). Prospective Primary Teachers' Professional Noticing in Non-Formal Learning Environments: The Case of a Mathematics Fair. *Education Sciences, 12*(1). <https://doi.org/10.3390/educsci12010055>

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The Use of Games for Learning in Primary Schools: A Bibliometrics Analysis of the Scopus Database

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Abstrak

Pembelajaran sekolah dasar yang terintegrasi dengan game dapat meningkatkan motivasi siswa dalam belajar sehingga dapat berdampak positif pada hasil belajar. Bibliometric review digunakan dalam riset ini, bertujuan untuk menganalisis artikel yang membahas pemanfaatan game pada jenjang sekolah dasar yang diterbitkan pada jurnal terindeks database Scopus periode tahun 2013-2022. Artikel sejumlah 122 yang membahas pengintegrasian game pada pembelajaran jenjang sekolah dasar dianalisis. Temuan review menunjukkan bahwa terjadi peningkatan jumlah publikasi secara signifikan tahun 2016-2021, sekitar 77,87% artikel diterbitkan pada periode tersebut. Spain dan Indonesia mendominasi jumlah publikasi. Empat authors dengan masing-masing 3 publikasi merupakan author yang berpengaruh. Visualisasi data menunjukkan bahwa topik riset ini dapat dikelompokkan berdasarkan jenis game, macam game, subjek studi, pendekatan pembelajaran, jenis pembelajaran, subjek yang terlibat dalam penelitian, dan sejumlah topik yang berpotensi untuk integrasikan dengan topik lain agar didapatkan novelty. Temuan penelitian ini dapat membantu peneliti yang relevan untuk mengenali tren penelitian dalam penggunaan game untuk pembelajaran sekolah dasar secara global dan merekomendasikan arah untuk penelitian lebih lanjut.

Kata Kunci: permainan, sekolah dasar, analisis bibliometrik.

Abstract

Elementary school learning that is integrated with games can increase student motivation in learning so that it can have a positive impact on learning outcomes. The bibliometric review used in this research aims to analyze articles that discuss the use of games at the elementary school level published in the Scopus database indexed journal for the period 2013-2022. A total of 122 articles discussing the integration of games in primary school level learning were analyzed. The review findings show that there was a significant increase in the number of publications in 2016-2021, around 77.87% of articles were published in that period. Spain and Indonesia dominate the number of publications. Four authors with 3 publications each are influential. Data visualization shows that this research topic can be grouped based on the type of game, type of game, subject of study, learning approach, type of learning, the subject involved in research, and a number of topics that have the potential to be integrated with other topics to obtain novelty. The findings of this study can help relevant researchers to recognize research trends in the use of games for primary school learning globally and recommend directions for further research.

Keywords: game, elementary school, bibliometric analysis.

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INTRODUCTION

The use of games in learning is an important element in the teaching and learning process in elementary schools. Game-based learning has been widely used in elementary schools (S A Zabala-Vargas et al., 2022). The use of digital games can stimulate children cognitively in a fun way (Moron et al., 2022). Games can relax children's brains (Dewi & Verawati, 2022). The use of games can turn a boring learning environment into a smarter one (Kamalodeen, Ramsawak-Jodha, Figaro-Henry, Jaggernauth, & Dedovets, 2021). Collaborative learning activities can be done through team games (Sumtsova et al., 2018) so as to improve interpersonal relationships among students (Fernández-Gavira, Espada-Goya, Alcaraz-Rodríguez, & Moscoso-Sánchez, 2021).

Previous research has discussed a lot about the use of games for learning at the basic education level which has an impact on a number of aspects that students have, but there is very limited information regarding the results of the analysis and summaries of a number of state-of-the-art research. Research on the impact of video games has been carried out in Ireland which has shown that statistically, it can improve math performance and student engagement in learning. However, there are also other results in the form of math anxiety experienced by female students after playing games (Rocha & Dondio, 2021). In China, experiments have also been carried out regarding the integration of educational games in language learning that can increase vocabulary acquisition (Chen, Yang, & Mei, 2021). In Indonesia, non-digital games are used in physical education to develop social skills (Hartanto, Kusmaedi, Ma'mun, & Abduljabar, 2021) and locomotor skills (Sahudi, Priyono, & Saputra, 2021).

The summary of relevant previous research can be done using bibliometric analysis. This methodology was initiated by Eugene Garfield in the mid-20th century (Cronin, 2001). Bibliometrics implements a series of mathematical and statistical methods in various scientific literature for analysis (González-Zamar & Abad-Segura, 2021). Bibliometric analysis is used to review various aspects such as countries, institutions, authors, and journals and can also be used to analyze patterns of collaboration among various actors such as countries, institutions, and authors (Cardella, Hernández-Sánchez, Monteiro, & Sánchez-García, 2021).

Using the Scopus database from 2013 to 2022, this study intends to examine a variety of studies on the use of games in primary school education. Six research questions were posed to investigate the current trends and patterns in the use of games in primary school:

1. How did the publication output profile of game usage in elementary school learning change from 2013 to 2022?
2. How did the publishing of game usage in elementary school learning spread across the world's nations and institutions?
3. Who were the world's leading researchers on the use of games in elementary school learning?
4. How did publishing trends on the use of games in primary school learning change between 2013 and 2022?
5. How did the presentation of study findings on the usage of games in primary school learning reveal a trend?
6. How significant was the 2013-2022 contribution of Indonesian scholars to the study of the use of games in primary school learning?

This review provides a useful summary of how to utilize games in elementary school education. The structure of our article is as follows. In the next section, we describe the datasets and methods used for this investigation. The Results Part gives responses to our study questions in the third section. The limits and ramifications of our study are then discussed before we deliver our results.

METHOD

Research Design and Database

The study followed the guidance of a bibliometric study. Bibliometric review is very powerful in examining and evaluating a number of works of literature in a particular field of study (McNicholas, Floyd, Fennimore, & Fitzpatrick, 2022). This study supports several Scopus database articles. Since this collection contains journals and conference proceedings that are regarded as more authoritative by the scientific community, as well as for their consistency and regularity, it is a valuable resource. The investigation began by doing an online search on February 15, 2022.

Article Search Strategy

To get some relevant articles, keywords are entered into the search engines. The keywords are “game” and “primary education”. To broaden the search, the equivalent words used in “primary education” are: “primary school”, “elementary education”, “elementary school”, “basic school”, and “basic education”. From the results of entering these keywords, it was recorded that there were 3,266 documents.

For a more precise search, several inclusion criteria were applied, including 1) the type of open access is limited to the Gold type so that all articles to be analyzed are easy to obtain; 2) the analyzed articles were published in the last 10 years (2013-2022) to have high relevance to the development of this topic, 3) this review is limited to the field of Social Science; 4) the language of the article to be reviewed is English to make it easier to read the article; and 5) this review only focuses on articles published by the Journal, not from the results of the Proceedings.

Using the following search query, the main database was extracted from Scopus:

```
TITLE-ABS-KEY(game* AND "primary school" OR "elementary education" OR "elementary school" OR "primary education" OR "basic school" OR "basic education") AND ( LIMIT-TO ( OA,"publisherfullgold" ) ) AND ( LIMIT-TO ( PUBYEAR,2022) OR LIMIT-TO ( PUBYEAR,2021) OR LIMIT-TO ( PUBYEAR,2020) OR LIMIT-TO ( PUBYEAR,2019) OR LIMIT-TO ( PUBYEAR,2018) OR LIMIT-TO ( PUBYEAR,2017) OR LIMIT-TO ( PUBYEAR,2016) OR LIMIT-TO ( PUBYEAR,2015) OR LIMIT-TO ( PUBYEAR,2014) OR LIMIT-TO ( PUBYEAR,2013) ) AND ( LIMIT-TO ( DOCTYPE,"ar" ) ) AND ( LIMIT-TO ( SUBJAREA,"SOC" ) ) AND ( LIMIT-TO ( LANGUAGE,"English" ) ) AND ( LIMIT-TO ( SRCTYPE,"j" ) )
```

In the end, 122 documents were collected for examination. In the final data, the following fields were captured for each document: article identifying number, topic indicates, publisher journal, cited connection, authors, institution, nation, document link, and publication year.

Data analysis

Scopus Analyzer and VOSviewer were used to process these data for bibliometric and networking analysis, respectively. The VoSViewer program was used to determine the study trend for any issue (Jiménez-García, Ruiz-Chico, Peña-Sánchez, & López-Sánchez, 2020; Shah, Lei, Ali, Doronin, & Hussain, 2020). The study was conducted to analyze research trends, such as characteristics of publication outputs, document publications, language source materials, distribution of countries and organizations, distribution of outputs within subject categories, leading authors, leading citations, and articles published trends from 2013 to 2022.

RESULT AND DISCUSSION

1. How did the publication output profile of game usage in elementary school learning change from 2013 to 2022?

This research aims to review 122 articles published in the period 2013-2022 that discuss the use of games in elementary school learning. All of these articles are spread across 57 sources in the form of research journals indexed in the Scopus database. The growth in the number of publications related to this topic is about 2.95 per

year. This topic also attracted 370 authors from various countries in the world. Other general information such as the average citation for each document per year, the number of references, and other information can be seen in Table 1.

Table 1
General Information related to Data 122 articles

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	2013:2022
Sources (Journals, Books, etc)	57
Documents	122
Average years from publication	2.95
Average citations per documents	4.795
Average citations per year per doc	0.901
References	5052
DOCUMENT TYPES	
article	122
DOCUMENT CONTENTS	
Keywords Plus (ID)	186
Author's Keywords (DE)	435
AUTHORS	
Authors	370
Author Appearances	396
Authors of single-authored documents	17
Authors of multi-authored documents	353
AUTHORS COLLABORATION	
Single-authored documents	17
Documents per Author	0.33
Authors per Document	3.03
Co-Authors per Documents	3.25
Collaboration Index	3.36

In general, the growth in the number of documents from year to year has increased dramatically. Figure 1 shows the change in the number of documents every year from 2013 to 2022. In 2013 and 2014, the number of documents stagnated at 6 papers per year. A number of scientists were involved in publishing research in 2013 and 2014, namely de Queiroz et al. (2013), Nursyahidah et al. (2013), Cheng et al. (2013), Frizzo (2013), Razak & Connolly (2013), Jaelani et al. (2013), Otero Saborido et al. (2014), Okeke (2014), Hsiao et al. (2014), Astuti (2014), Halloluwa et al. (2014), and Gil-Madrona et al. (2014). 2016 was the year in which only 2 articles were published and this is the lowest number in the last 1 decade. However, after 2016, the number of documents issued increased significantly until it peaked in 2021 with 38 papers. By early 2022, 4 documents had been published (Nur, Kartono, Zaenuri, & Rochmad, 2022; Santurio & Fernández-Río, 2022; Sibgatullin et al., 2022; Xenofontos & Alkan, 2022).

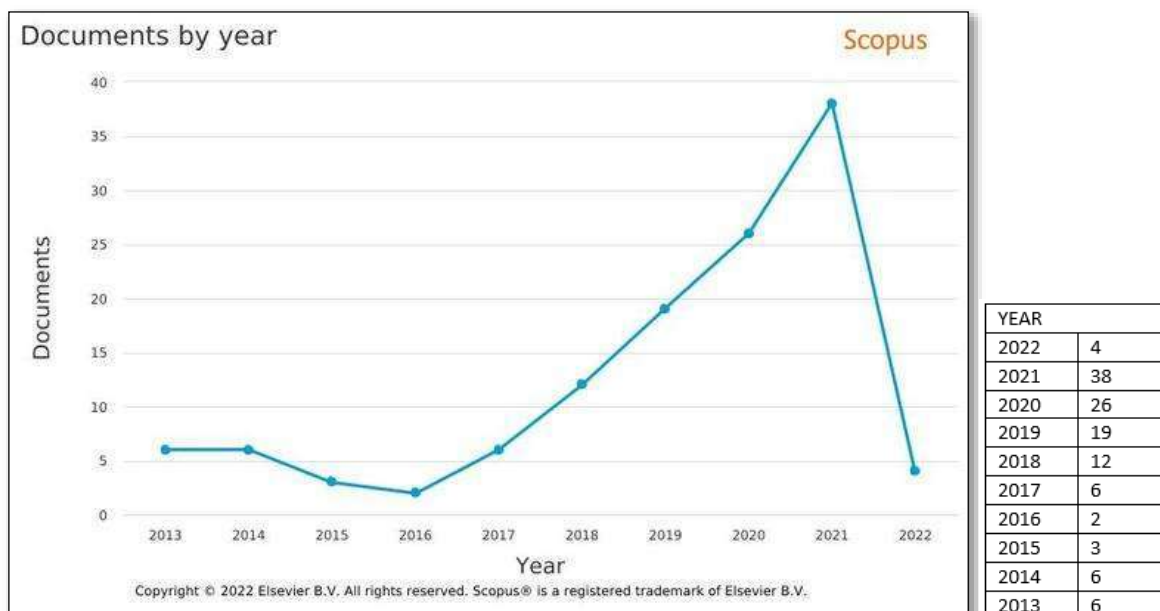


Figure 1. Growth of Number of Papers per Year

2. How did the publishing of game usage in elementary school learning spread across the world's nations and institutions?

The production of articles on the topic of using games in primary schools is spread across some countries (Figure 2). It is clear, sequentially, that Spain (30) and Indonesia (19) dominate the production of the number of articles. Brazil (8), Taiwan (7), the United Kingdom (6), and Turkey (5) came in next. Croatia and United States were able to produce the same number of papers, namely 4 works. China and Colombia managed to donate 3 publications each related to this topic.

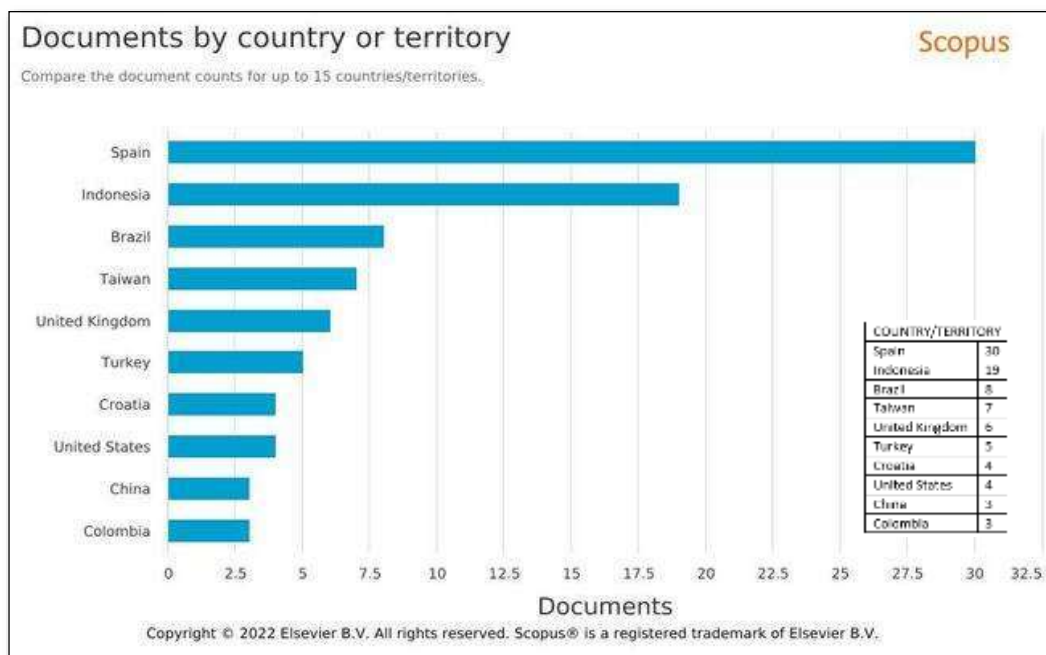


Figure 2. Documents Issued by Individual Countries

A number of papers related to the use of games in inter-affiliate elementary school learning can be seen in Table 2. Ten institutions contributed documents related to this topic. These institutions come from Spain, Indonesia, Taiwan, Russia, and South Africa. Institutions from Spain and Indonesia dominate this affiliate contribution.

Table 2
Institutional Contribution by Country

Affiliation	Documents	Country
Universidad de Oviedo	6	Spain
Universitas Negeri Jakarta	4	Indonesia
Universidad de Extremadura	3	Spain
National Taiwan Normal University	3	Taiwan
Universidad de Granada	3	Spain
Universitas Sriwijaya	3	Indonesia
Kazan Federal University	3	Russia
Universidad de Murcia	2	Spain
Universidad de Castilla-La Mancha	2	Spain
University of South Africa	2	South Africa

3. Who were the world's leading researchers on the use of games in elementary school learning?

In the context of the most prolific authors, Freu, Gamero, García-Ceberino, and Ibáñez were able to produce 3 articles each. For the rest, several authors can contribute 2 documents each (See Figure 3).

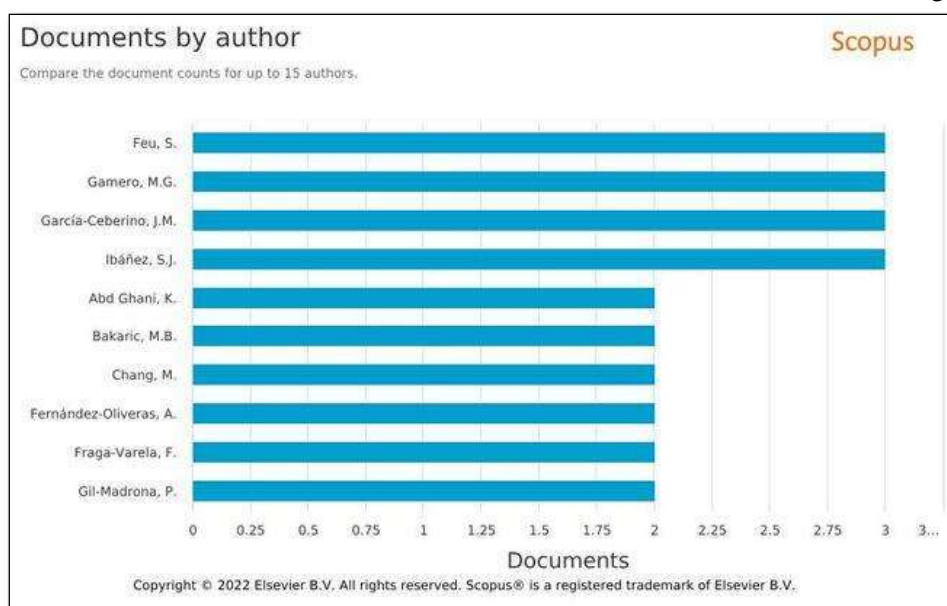


Figure 3. The Most productive author during 2013-2022

In general, total author citations and total document citations are directly proportional (See Figure 4 and Table 3). Authors who are members of one article have the same number of citations. Cózar-Gutiérrez and Sáez-López co-authored and received 63 citations. Fernández-Montalvo, Peñalva, and Irazabal were cited 52 times. Cheng along with Lou, Kuo, and Shih earned 50 citations. The authors cite Cañabate and colleagues 22 times.

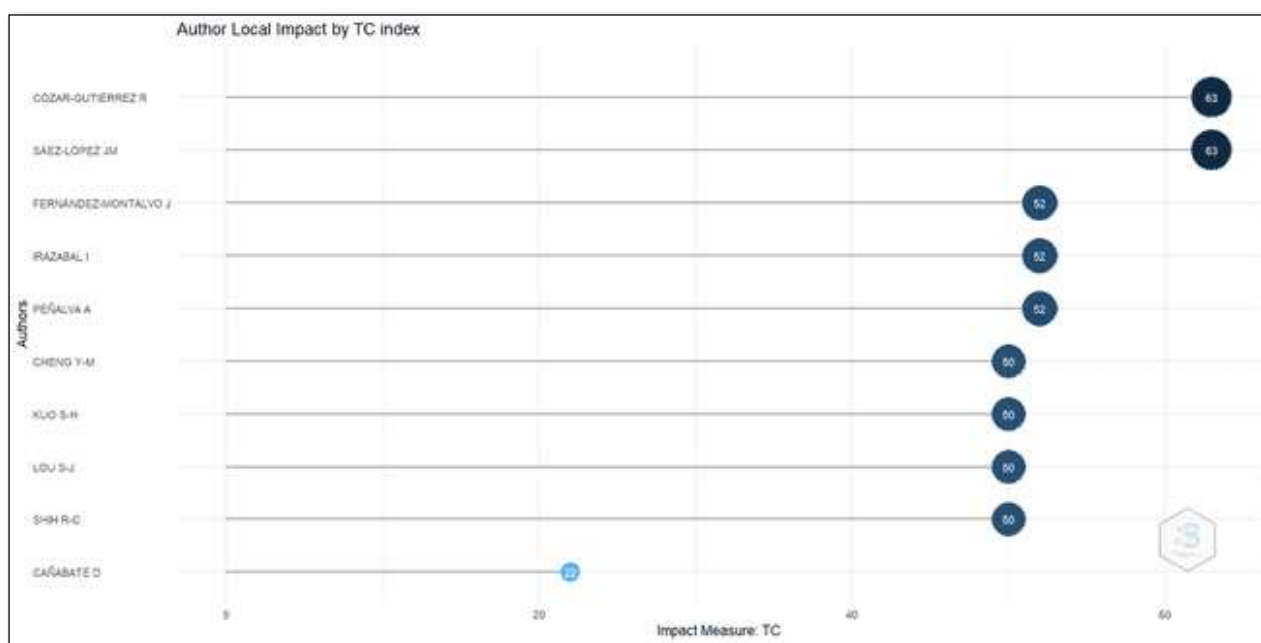


Figure 4. Total citations received by the Top Ten Authors

**Table 3
 Total Citation Top 10 Documents**

Document	Author (s)	Total Citations
Game-based learning and gamification in initial teacher training in the social sciences: an experiment with MinecraftEdu	Cózar-Gutiérrez & Sáez-López (2016)	63
Internet Use Habits and Risk Behaviours in Preadolescence	Fernández-Montalvo et al. (2015)	53
Investigating elementary school students' technology acceptance by applying digital game-based learning to environmental education	Cheng et al. (2013)	50
Analyzing emotions and social skills in physical education	Cañabate et al. (2018)	22
Game-based learning: Increasing the logical-mathematical, naturalistic, and linguistic learning levels of primary school students	Pérez et al. (2018)	21
Effective home-school partnership: Some strategies to help strengthen parental involvement	Okeke (2014)	20
Also want girls to play: Participation of children in organized physical activity in the context no school	Gil-Madrone et al. (2014)	19
Application of the ubiquitous game with augmented reality in primary education	Sáez-López et al. (2019)	16
The influence of collaborative learning games within different devices on student's learning performance and behaviors	H. S. Hsiao et al. (H. S. Hsiao, Chang, Lin, Chang, & Chen, 2014)	16
Design and implementation of the anonymized social network-based mobile game system for learning mathematics	Juric et al. (2018)	14

4. How did publishing trends on the use of games in primary school learning change between 2013 and 2022?

Reviews of the use of games in learning at the elementary school level are filtered based on publications by research journals only (Table 4). The International Journal of Emerging Technologies in Learning leads with 14 papers. Meanwhile, the second position with 11 documents was occupied by Sustainability Switzerland. Education Sciences and the International Journal of Human Movement and Sports Sciences shared the same number of 8 articles and were followed by Comunicar which was able to produce 4 documents. On the other hand, some journals contributed by publishing 3 documents, namely Apunts Educacion Fisica Y Deportes, Eurasia Journal of Mathematics Science and Technology Education, Frontiers in Education, International Electronic Journal of Elementary Education, and Maringa Journal of Physical Education.

Table 4
Number of Documents by Journal

No	SOURCE TITLE	Number of documents
1	International Journal of Emerging Technologies in Learning	14
2	Sustainability Switzerland	11
3	Education Sciences	8
4	International Journal of Human Movement and Sports Sciences	8
5	Comunicar	4
6	Apunts Educacion Fisica Y Deportes	3
7	Eurasia Journal of Mathematics Science and Technology Education	3
8	Frontiers in Education	3
9	International Electronic Journal of Elementary Education	3
10	Journal Of Physical Education Maringa	3

5. How did the presentation of study findings on the usage of games in primary school learning reveal a trend?

Visualization of research trends on game integration in elementary school learning was obtained from 122 works indexed by the Scopus database. In the data visualization (Figure 5), it can be seen that there are seven clusters with their respective colors (red, green, blue, yellow, purple, light blue, and orange). Cluster 1 (red) indicates the use of collaborative learning in primary education and higher education. Cluster 2 (green) relates to the use of games in physical education and mathematics education by considering gender. Students learn by using serious games, which is the theme of Cluster 3 (blue). Cluster 4 (yellow) illustrates e-learning in elementary schools that integrates digital educational games and educational technology. Cluster 5 (purple) discusses the discussion on the application of game-based learning to motivate student learning. Cluster 6 (light blue) is related to education for children using video games to promote academic performance. The last domain, Cluster 7 (orange) relates to the discussion of the use of augmented reality through mobile learning in inclusive education.

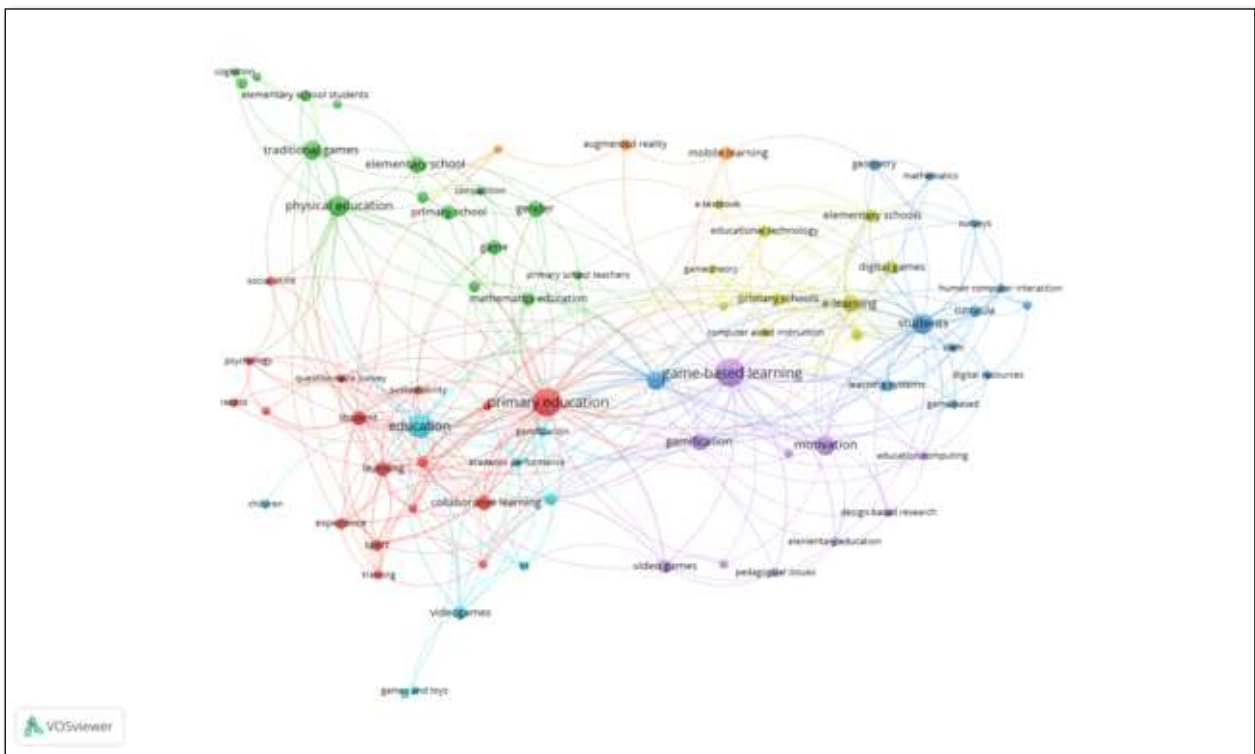


Figure 5. Overview of Research related to Game Utilization in Elementary Schools (2013-2022)

Some topics were not included in the previous clusters, namely special education, computational thinking, and PMRI (Indonesian Realistic Mathematics Approach). This means that the three topics can be combined with other topics so that they can provide novelty for future research (Figure 6).

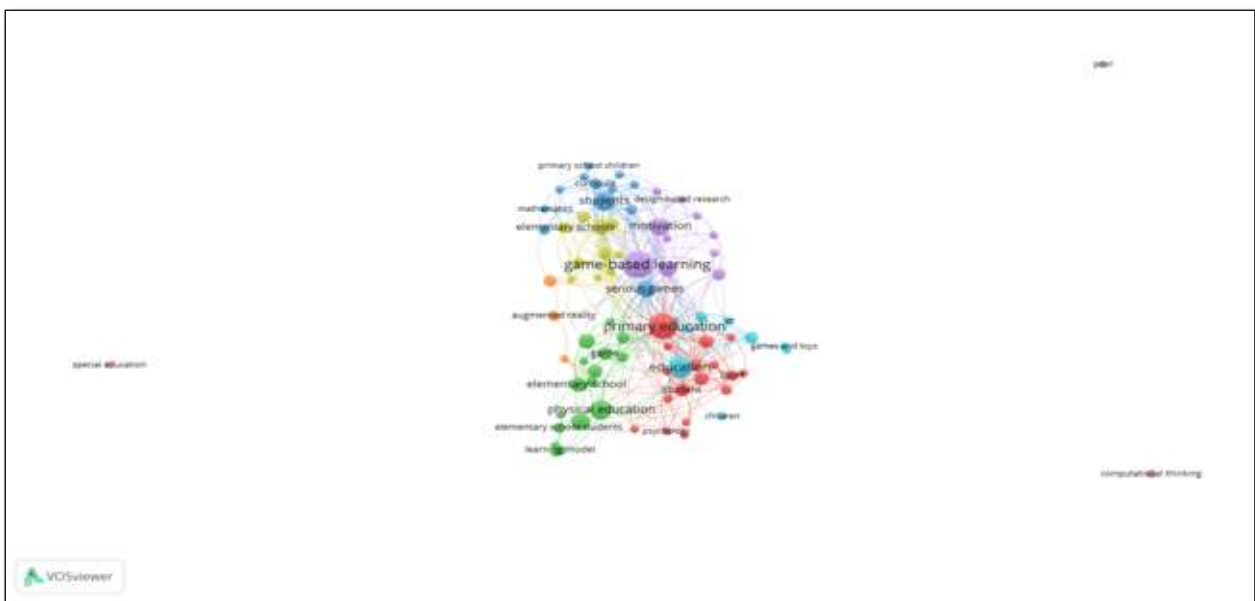


Figure 6. Next Research Opportunity

The relationship between variables can be found if a more in-depth analysis is carried out on each of these variables. Figure 7 shows what types of games are used in learning at the basic education level. The types of games include digital games, traditional games, serious games, and educational games.

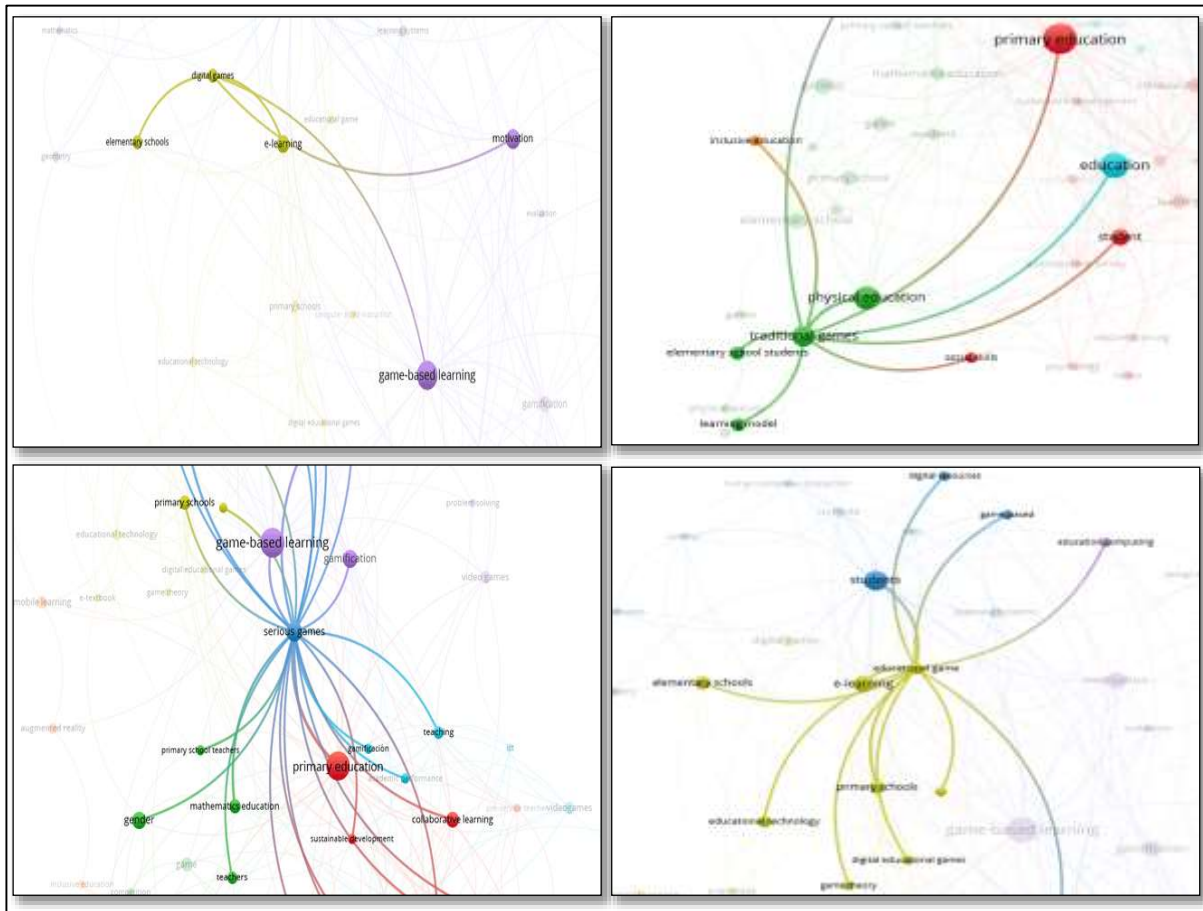


Figure 7. Types of Games Used in Learning in Elementary Schools

When viewed from the field of study, there are two main subject areas such as mathematics, and physical education, which utilize games in the implementation of Figure 8 learning.

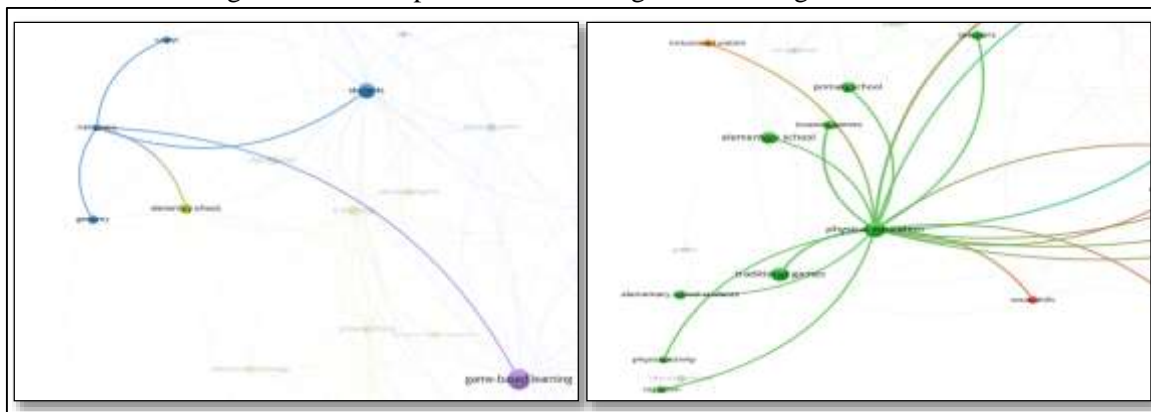


Figure 8. The main fields of study that use games in their learning

Another finding is related to the learning approach used in state-of-the-art articles. Game-based learning (e-learning), collaborative learning, problem-solving, gamification, STEM, and computer-aided instruction is learning approaches that are often used. The relationship between these variables can be seen in Figure 9.

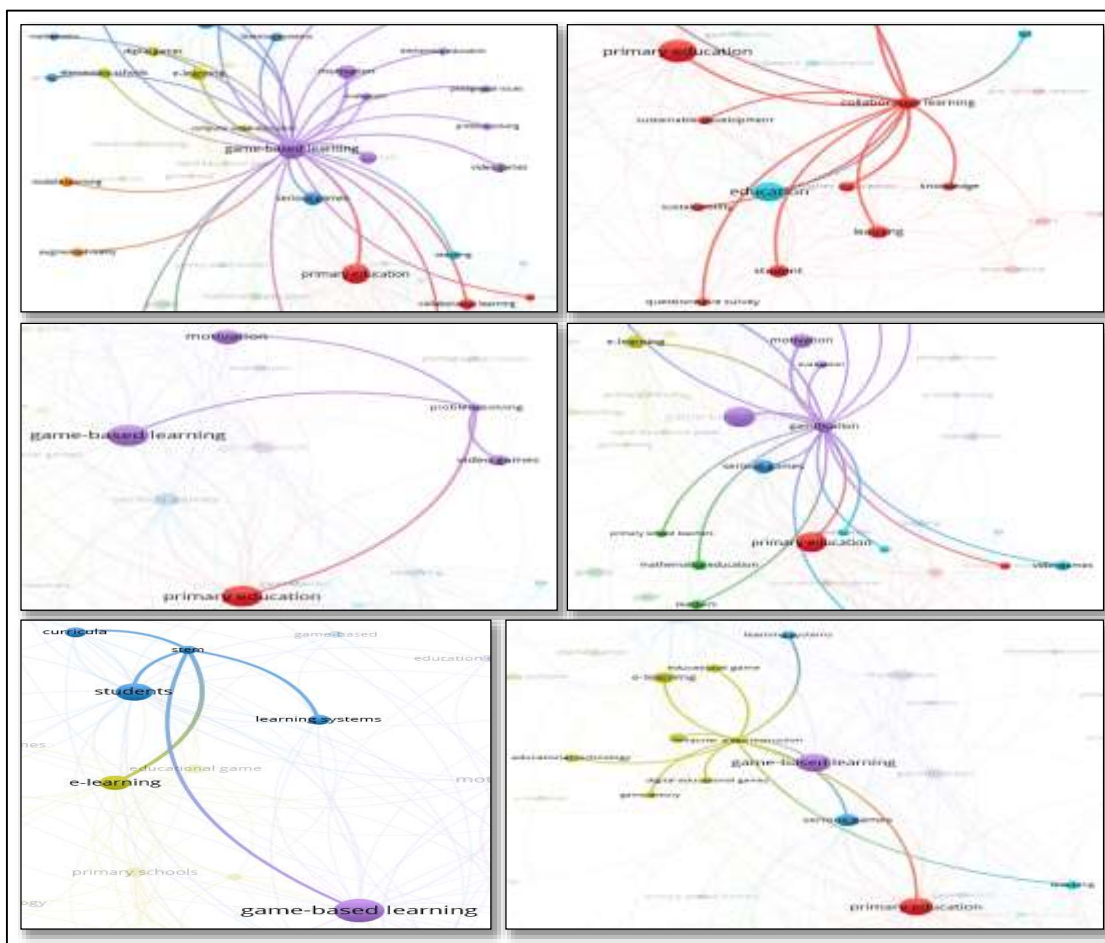


Figure 9. Frequently Used Learning Approach

Research on the topic of using games in elementary school learning involves a number of research subjects. The subjects frequently mentioned in these articles are pre-service elementary education teachers, primary school teachers, and primary school children (Figure 10).

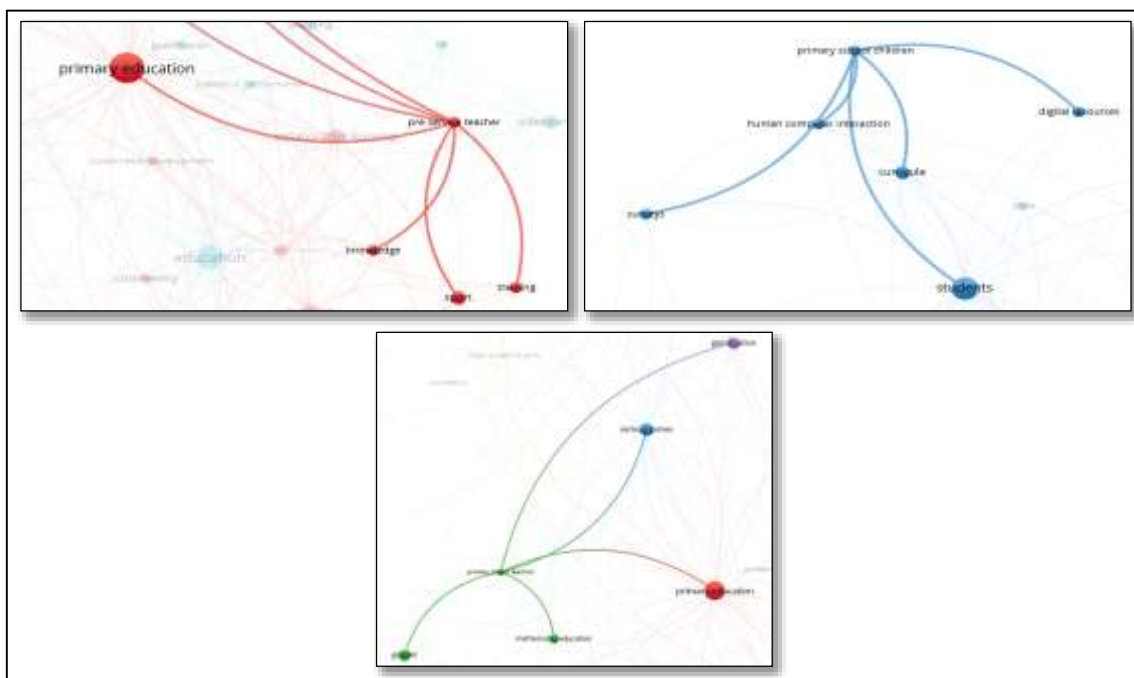


Figure 10. Research Subjects

6. How significant was the 2013-2022 contribution of Indonesian scholars to the study of the use of games in primary school learning?

Indonesia donated 19 documents related to the integration of games in primary school level learning. The papers were spread across some universities (Table 5). Jakarta State University and Indonesia Education University competed with each other being able to publish 4 articles. Sriwijaya University and Yogyakarta State University were next with the achievements of 3 and 2 articles respectively. For the rest, some universities were able to publish 1 article during that period.

Table 5
Number of Documents issued by Affiliates from Indonesia

No	Affiliation	Number of documents
1	Universitas Negeri Jakarta	4
2	Universitas Pendidikan Indonesia	4
3	Universitas Sriwijaya	3
4	Universitas Negeri Yogyakarta	2
5	Majalengka University	1
6	IKIP PGRI Pontianak	1
7	University of Nahdlatul Ulama Lampung	1
8	Universitas PGRI Palembang	1
9	University of Sriwijaya	1
10	STKIP PGRI Lubuklinggau	1

There are 8 journals idolized by writers from Indonesia during 2013-2022 (Table 6). The International Journal of Human Movement and Sports Sciences is a journal that frequently publishes articles by Indonesian authors. In second and third positions, respectively, are the International Journal of Emerging Technologies in Learning and the Journal on Mathematics Education. After that, there are Jurnal Cakrawala Pendidikan, European Journal of Educational Research, Participatory Educational Research, Teoria Ta Metodika Fizicnogo Vihovanna, dan Universal Journal of Educational Research.

Table 6
Favorite Journal of Indonesian Authors

No.	Source Title	Documents
1	International Journal of Human Movement and Sports Sciences	8
2	International Journal of Emerging Technologies in Learning	3
3	Journal On Mathematics Education	3
4	Cakrawala Pendidikan	1
5	European Journal of Educational Research	1
6	Participatory Educational Research	1
7	Teoria Ta Metodika Fizicnogo Vihovanna	1
8	Universal Journal of Educational Research	1

The growth of jobs that discuss the use of games in primary school learning has increased significantly over the past decade. Starting with 6 papers in 2013 and reaching a peak in 2021. Articles discussing this topic in 2022 have the potential to exceed the achievements in 2021. The rapid increase in the number of documents occurred when COVID-19 hit all countries from 2019 until now. Until this manuscript was compiled, there have been 4 authors who published their documents, namely Xenofontos & Alkan (2022), Sibgatullin et al. (2022), Santurio & Fernández-Río (2022), dan Nur et al. (2022).

Games take many forms. Based on the use of technology, games are grouped into digital games and traditional games. Digital games can attract and develop learning motivation (Tazouti, Boulaknadel, & Fakhri, 2019). Video games can be used by teachers to train students to solve problems (Mee Mee et al., 2021). Traditional games are more focused on the use of physical activity (Syaflin et al., 2021). Serious games are not used for entertainment but can increase the independence and motivation of elementary school students (Papanastasiou, Drigas, & Skianis, 2017). On the other hand, educational games can be used by teachers to assist students in improving language vocabulary at the elementary school level.

Various kinds of digital games are used in several fields of study in elementary schools. Video games and augmented reality through mobile learning are the types of digital games used. Mathematics and physical education were the main fields of study when the previous researchers conducted their research. A number of researchers apply games in mathematics learning in elementary schools (Fernández-Oliveras, Espigares-Gámez, & Oliveras, 2021; Fraga-Varela Dr., Vila-Couñago Dr., & Martínez-Piñeiro Dr., 2021; P Juric, Bakaric, & Matetic, 2021; Pires et al., 2019). Games in the form of invasion can be used in the field of physical education studies (Otero Saborido et al., 2014).

Variable learning approach used by research is very diverse. Vázquez-Vílchez et al. (2021) used game-based learning for research involving teachers as research subjects. On the other hand, collaborative learning is integrated with a number of forms of games to achieve this learning goal. These games include serious games (Saitua-Iribar, Corral-Lage, & Peña-Miguel, 2020) and video games (Martín-del-Pozo, García-Valcárcel Muñoz-Repiso, & Hernández Martín, 2019; Marta Martín del Pozo, Basilotta Gómez-Pablos, & García-Valcárcel Muñoz-Repiso, 2017). Juric et al. (2018) uses a problem solving approach along with social media to develop learning outcomes and socialization among class members. Another approach is gamification which is usually collaborated with games-based learning (Ramón Cózar-Gutiérrez & Sáez-López, 2016; Sergio A. Zabala-Vargas et al., 2021).

Three subjects are often involved in previous studies that have two types of learning. Research subjects frequently involved are pre-service elementary education teachers (García-Ceberino, Feu, Gamero, & Ibáñez, 2021; M Martín del Pozo, Basilotta Gómez-Pablos, & García-Valcárcel Muñoz-Repiso, 2017; Mee Mee et al., 2020; Perera & Hervás-Gómez, 2021), primary school teachers (Fraga-Varela, Vila-Couñago, & Rodríguez-Groba, 2021; Susman & Pavlin, 2020; Yaşar, Kıyıcı, & Karataş, 2020), and primary school children (Chiazzese, Fulantelli, Pipitone, & Taibi, 2018; Kayumova, Gainullina, Akhmadieva, Matvienko, & Kabakhidze, 2021). This learning is also related to mobile learning which is considered to be able to penetrate space and time (Jen-

Yi, Chuan-His, & Yi-Hsin, (2020), and e-learning which is promoted to increase student motivation, engagement, and learning (T. Alshammari, 2020).

CONCLUSION

Through bibliometric analysis, this research intends to review technical papers for the period 2013-2022 related to the use of games for learning at the elementary school level. The results of the review show a significant increase in terms of the number of papers published in the 2016-2021 period. Some countries, such as Spain and Indonesia, are very dominant in terms of the number of documents. Four authors are considered to have had more influence in this field. The data mapping display shows that relevant previous research can be classified based on the type of game, type of game, subject of study, learning approach, type of learning, the subject involved in research, and a number of topics that have the potential to be integrated with other topics to obtain novelty. The results of this review report can provide mapping and identify research trends, especially on the topic of game integration in teaching in elementary schools so that it can be used as an alternative reference for future research. This review is limited to the elementary school level and uses only the Scopus database. The next review paper should be made at other levels of education and use a combination of prestigious databases such as Scopus and Web of Science.

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REFERENCES

- Astuti, P. (2014). Learning one-digit decimal numbers by measurement and game predicting length. *Journal on Mathematics Education*, 5(1), 35–46. <https://doi.org/10.22342/jme.5.1.1447.35-46>
- Cañabate, D., Martínez, G., Rodríguez, D., & Colomer, J. (2018). Analysing emotions and social skills in physical education. *Sustainability (Switzerland)*, 10(5). <https://doi.org/10.3390/su10051585>
- Cardella, G. M., Hernández-Sánchez, B. R., Monteiro, A. A., & Sánchez-García, J. C. (2021). Social entrepreneurship research: Intellectual structures and future perspectives. *Sustainability (Switzerland)*, 13(14). <https://doi.org/10.3390/su13147532>
- Chen, J., Yang, S., & Mei, B. (2021). Towards the sustainable development of digital educational games for primary school students in China. *Sustainability (Switzerland)*, 13(14). <https://doi.org/10.3390/su13147919>
- Cheng, Y.-M., Lou, S.-J., Kuo, S.-H., & Shih, R.-C. (2013). Investigating elementary school students' technology acceptance by applying digital game-based learning to environmental education. *Australasian Journal of Educational Technology*, 29(1), 96–110. <https://doi.org/10.14742/ajet.65>
- Chiassese, G., Fulantelli, G., Pipitone, V., & Taibi, D. (2018). Engaging primary school children in computational thinking: Designing and developing videogames. *Education in the Knowledge Society*, 19(2), 63–81. <https://doi.org/10.14201/EKS20181926381>
- Cózar-Gutiérrez, R., & Sáez-López, J. M. (2016). Game-based learning and gamification in initial teacher training in the social sciences: an experiment with MinecraftEdu. *International Journal of Educational Technology in Higher Education*, 13(1). <https://doi.org/10.1186/s41239-016-0003-4>
- Cózar-Gutiérrez, Ramón, & Sáez-López, J. M. (2016). Game-based learning and gamification in initial teacher training in the social sciences: an experiment with MinecraftEdu. *International Journal of Educational Technology in Higher Education*, 13(1), 2. <https://doi.org/10.1186/s41239-016-0003-4>
- Cronin, B. (2001). Bibliometrics and beyond: some thoughts on web-based citation analysis. *Journal of*

- 8489 *The Use of Games for Learning in Primary Schools: A Bibliometrics Analysis of the Scopus Database – Afib Rulyansah, Emy Yunita Rahma Pratiwi, Ribut Prastiwi Sriwijayanti, Ani Anjarwati*
DOI: <https://doi.org/10.31004/basicedu.v6i5.3881>
- Information Science*, 27(1), 1–7.
- de Queiroz, O. A., Enumo, S. R. F., & Primi, R. (2013). Children's performance with and without special needs in dynamic and in psychometric testing. *Revista Brasileira de Educacao Especial*, 19(3), 425–446. <https://doi.org/10.1590/S1413-65382013000300009>
- Dewi, R., & Verawati, I. (2022). The Effect of Manipulative Games to Improve Fundamental Motor Skills in Elementary School Students. *International Journal of Education in Mathematics, Science and Technology*, 10(1), 24–37. <https://doi.org/10.46328/ijemst.2163>
- Fernández-Gavira, J., Espada-Goya, P., Alcaraz-Rodríguez, V., & Moscoso-Sánchez, D. (2021). Design of educational tools based on traditional games for the improvement of social and personal skills of primary school students with hearing impairment. *Sustainability (Switzerland)*, 13(22). <https://doi.org/10.3390/su132212644>
- Fernández-Montalvo, J., Peñalva, A., & Irazabal, I. (2015). Internet Use Habits and Risk Behaviours in Preadolescence. *Comunicar*, 22(44), 113–121. <https://doi.org/10.3916/C44-2015-12>
- Fernández-Oliveras, A., Espigares-Gámez, M. J., & Oliveras, M. L. (2021). Implementation of a playful microproject based on traditional games for working on mathematical and scientific content. *Education Sciences*, 11(10). <https://doi.org/10.3390/educsci11100624>
- Fraga-Varela Dr., F., Vila-Couñago Dr., E., & Martínez-Piñeiro Dr., E. (2021). The impact of serious games in mathematics fluency: A study in Primary Education. *Comunicar*, 29(69), 115–125. <https://doi.org/10.3916/C69-2021-10>
- Fraga-Varela, F., Vila-Couñago, E., & Rodríguez-Groba, A. (2021). Serious games and mathematical fluency: A study from the gender perspective in primary education. *Sustainability (Switzerland)*, 13(12). <https://doi.org/10.3390/su13126586>
- Frizzo, G. (2013). The school games as mechanisms for maintenance and elimination: A critique of the sportive logic in school. *Movimento*, 19(4), 163–180. <https://doi.org/10.22456/1982-8918.38628>
- García-Ceberino, J. M., Feu, S., Gamero, M. G., & Ibáñez, S. J. (2021). Pedagogical variables and motor commitment in the planning of invasion sports in primary education. *Sustainability (Switzerland)*, 13(8). <https://doi.org/10.3390/su13084529>
- Gil-Madrona, P., Cachón-Zagalaz, J., Diaz-Suare, A., Valdivia-Moral, P., & Zagalaz-Sánchez, M. L. (2014). Also want girls play: Participation of children in organized physical activity in the context no school. *Movimento*, 20(1), 103–124. <https://doi.org/10.22456/1982-8918.38070>
- González-Zamar, M.-D., & Abad-Segura, E. (2021). Visual arts in the university educational ecosystem: Analysis of schools of knowledge. *Education Sciences*, 11(4). <https://doi.org/10.3390/educsci11040184>
- Halloluwa, H. K. T. C., Usoof, H., & Hewagamage, K. P. (2014). Stimulating learners' motivation in primary education in Sri Lanka - A literature review. *International Journal of Emerging Technologies in Learning*, 9(1), 47–52. <https://doi.org/10.3991/ijet.v9i1.2964>
- Hartanto, D., Kusmaedi, N., Ma'mun, A., & Abduljabar, B. (2021). Integrating social skills in traditional games with physical education interventions. *International Journal of Human Movement and Sports Sciences*, 9(5), 921–928. <https://doi.org/10.13189/saj.2021.090513>
- Hsiao, H.-S., Chang, C.-S., Lin, C.-Y., Chang, C.-C., & Chen, J.-C. (2014). The influence of collaborative learning games within different devices on student's learning performance and behaviours. *Australasian Journal of Educational Technology*, 30(6), 652–669. <https://doi.org/10.14742/ajet.347>
- Hsiao, H. S., Chang, C. S., Lin, C. Y., Chang, C. C., & Chen, J. C. (2014). The influence of collaborative learning games within different devices on student's learning performance and behaviours. *Australasian Journal of Educational Technology*, 30(6), 652–669. <https://doi.org/10.14742/AJET.347>
- Jaelani, A., Putri, R. I. I., & Hartono, Y. (2013). Students' strategies of measuring time using traditional gasing

8490 *The Use of Games for Learning in Primary Schools: A Bibliometrics Analysis of the Scopus Database – Afib Rulyansah, Emy Yunita Rahma Pratiwi, Ribus Prastiwi Sriwijayanti, Ani Anjarwati*
DOI: <https://doi.org/10.31004/basicedu.v6i5.3881>

game in third grade of primary school. *Journal on Mathematics Education*, 4(1), 29–40.
<https://doi.org/10.22342/jme.4.1.560.29-40>

Jen-Yi, C., Chuan-His, L., & Yi-Hsin, Y. (2020). The Study of Indigenous Students' Learning Effect on Geometry Course with CPS Mobile Learning and Atayal Culture. *International Journal of Learning and Teaching*, 1–6. <https://doi.org/10.18178/ijlt.6.1.1-6>

Jiménez-García, M., Ruiz-Chico, J., Peña-Sánchez, A. R., & López-Sánchez, J. A. (2020). A Bibliometric Analysis of Sports Tourism and Sustainability (2002–2019). *Sustainability*, Vol. 12.
<https://doi.org/10.3390/su12072840>

Juric, P, Bakaric, M. B., & Matetic, M. (2018). Design and implementation of anonymized social network-based mobile game system for learning mathematics. *International Journal of Emerging Technologies in Learning*, 13(12), 83–98. <https://doi.org/10.3991/ijet.v13i12.8762>

Juric, P, Bakaric, M. B., & Matetic, M. (2021). Cognitive predispositions of students for STEM success and differences in solving problems in the computer game for learning mathematics. *International Journal of Engineering Pedagogy*, 11(44), 81–94. <https://doi.org/10.3991/IJEP.V11I4.20587>

Juric, Petar, Brkic Bakaric, M., & Matetic, M. (2018). Design and Implementation of Anonymized Social Network-based Mobile Game System for Learning Mathematics. *International Journal of Emerging Technologies in Learning (IJET)*, 13(12), 83. <https://doi.org/10.3991/ijet.v13i12.8762>

Kamalodeen, V. J., Ramsawak-Jodha, N., Figaro-Henry, S., Jaggernauth, S. J., & Dedovets, Z. (2021). Designing gamification for geometry in elementary schools: insights from the designers. *Smart Learning Environments*, 8(1). <https://doi.org/10.1186/s40561-021-00181-8>

Kayumova, L. R., Gainullina, L. N., Akhmadieva, R. S., Matvienko, V. V., & Kabakhidze, E. L. (2021). Using Interactive Platform “Round” to Organize Online Leisure Activities for Children During the Pandemic. *Eurasia Journal of Mathematics, Science and Technology Education*, 17(10), 1–10.
<https://doi.org/10.29333/ejmste/11182>

Martín-del-Pozo, M., García-Valcárcel Muñoz-Repiso, A., & Hernández Martín, A. (2019). Video Games and Collaborative Learning in Education? A Scale for Measuring In-Service Teachers' Attitudes towards Collaborative Learning with Video Games. *Informatics*, 6(3), 30.
<https://doi.org/10.3390/informatics6030030>

Martín del Pozo, M, Basilotta Gómez-Pablos, V., & García-Valcárcel Muñoz-Repiso, A. (2017). A quantitative approach to pre-service primary school teachers' attitudes towards collaborative learning with video games: previous experience with video games can make the difference. *International Journal of Educational Technology in Higher Education*, 14(1). <https://doi.org/10.1186/s41239-017-0050-5>

Martín del Pozo, Marta, Basilotta Gómez-Pablos, V., & García-Valcárcel Muñoz-Repiso, A. (2017). A quantitative approach to pre-service primary school teachers' attitudes towards collaborative learning with video games: previous experience with video games can make the difference. *International Journal of Educational Technology in Higher Education*, 14(1), 11. <https://doi.org/10.1186/s41239-017-0050-5>

McNicholas, P. J., Floyd, R. G., Fennimore, L. E., & Fitzpatrick, S. A. (2022). Determining journal article citation classics in school psychology: An updated bibliometric analysis using Google Scholar, Scopus, and Web of Science. *Journal of School Psychology*, 90, 94–113.
<https://doi.org/https://doi.org/10.1016/j.jsp.2021.11.001>

Mee Mee, R. W., Pek, L. S., Yee Von, W., Abd Ghani, K., Tengku Shahdan, T. S., Ismail, M. R., & Subba Rao, Y. (2021). A conceptual model of analogue gamification to enhance learners' motivation and attitude. *International Journal of Language Education*, 5(2), 40–50. <https://doi.org/10.26858/ijole.v5i2.18229>

Mee Mee, R. W., Shahdan, T. S. T., Ismail, M. R., Abd Ghani, K., Pek, L. S., Von, W. Y., ... Rao, Y. S. (2020). Role of gamification in classroom teaching: Pre-service teachers' view. *International Journal of Evaluation and Research in Education*, 9(3), 684–690. <https://doi.org/10.11591/ijere.v9i3.20622>

- 8491 *The Use of Games for Learning in Primary Schools: A Bibliometrics Analysis of the Scopus Database – Afib Rulyansah, Emy Yunita Rahma Pratiwi, Ribut Prastiwi Sriwijayanti, Ani Anjarwati*
DOI: <https://doi.org/10.31004/basicedu.v6i5.3881>
- Moron, V. B., Barbosa, D. N. F., Sanfelice, G. R., Barbosa, J. L. V., Leithardt, D. R. F., & Leithardt, V. R. Q. (2022). Executive Functions, Motor Development, and Digital Games Applied to Elementary School Children: A Systematic Mapping Study. *Education Sciences*, 12(3).
<https://doi.org/10.3390/educsci12030164>
- Nur, A. S., Kartono, K., Zaenuri, Z., & Rochmad, R. (2022). The learning trajectory construction of elementary school students in solving integer word problems. *Participatory Educational Research*, 9(1), 404–424.
<https://doi.org/10.17275/per.22.22.9.1>
- Nursyahidah, F., Putri, R. I. I., & Somakim. (2013). Supporting first grade students' understanding of addition up to 20 using traditional game. *Journal on Mathematics Education*, 4(2), 212–223.
<https://doi.org/10.22342/jme.4.2.557.212-223>
- Okeke, C. I. (2014). Effective home-school partnership: Some strategies to help strengthen parental involvement. *South African Journal of Education*, 34(3), 1–9. <https://doi.org/10.15700/201409161044>
- Otero Saborido, F. M., Calvo Lluch, Á., & González-Jurado, J. A. (2014). Analysis of the assessment of invasion sports in elementary school. *Cultura, Ciencia y Deporte*, 9(26), 139–153.
<https://doi.org/10.12800/ccd.v9i26.432>
- Papanastasiou, G. P., Drigas, A. S., & Skianis, C. (2017). Serious games in preschool and primary education: Benefits and impacts on curriculum course syllabus. *International Journal of Emerging Technologies in Learning*, 12(1), 44–56. <https://doi.org/10.3991/ijet.v12i01.6065>
- Perera, V. H., & Hervás-Gómez, C. (2021). University students' perceptions toward the use of an online student response system in game-based learning experiences with mobile technology. *European Journal of Educational Research*, 10(2), 1009–1022. <https://doi.org/10.12973/EU-JER.10.2.1009>
- Pérez, M. E. M., Guzmán Duque, A. P., & García, L. C. F. (2018). Game-based learning: Increasing the logical-mathematical, naturalistic, and linguistic learning levels of primary school students. *Journal of New Approaches in Educational Research*, 7(1), 31–39. <https://doi.org/10.7821/naer.2018.1.248>
- Pires, A. C., González Perilli, F., Bakala, E., Fleisher, B., Sansone, G., & Marichal, S. (2019). Building Blocks of Mathematical Learning: Virtual and Tangible Manipulatives Lead to Different Strategies in Number Composition. *Frontiers in Education*, 4. <https://doi.org/10.3389/feduc.2019.00081>
- Razak, A. A., & Connolly, T. M. (2013). Using games-based learning: How it influences the learning experience and outcomes of primary school children. *International Journal of Emerging Technologies in Learning*, 8(SPL.ISSUE2), 47–54. <https://doi.org/10.3991/ijet.v8iS2.2782>
- Rocha, M., & Dondio, P. (2021). Effects of a videogame in math performance and anxiety in primary school. *International Journal of Serious Games*, 8(3 SE-GaLA Conf 2020 Special Issue), 45–70.
<https://doi.org/10.17083/ijsg.v8i3.434>
- Sáez-López, J.-M., Sevillano-García, M. L., & Pascual-Sevillano, M. Á. (2019). Application of the ubiquitous game with augmented reality in primary education. *Comunicar*, 27(61), 66–76.
<https://doi.org/10.3916/C61-2019-06>
- Sahudi, U., Priyono, A., & Saputra, Y. M. (2021). Effects of ular tangga games on the development of locomotor skills in elementary school. *International Journal of Human Movement and Sports Sciences*, 9(4), 119–124. <https://doi.org/10.13189/saj.2021.091320>
- Saitua-Iribar, A., Corral-Lage, J., & Peña-Miguel, N. (2020). Improving Knowledge about the Sustainable Development Goals through a Collaborative Learning Methodology and Serious Game. *Sustainability*, 12(15), 6169. <https://doi.org/10.3390/su12156169>
- Santurio, J. I. M., & Fernández-Río, J. (2022). Harry Potter in Sport Education? Teacher, students and parents' views. *Sport TK*, 11. <https://doi.org/10.6018/SPORTK.463021>
- Shah, S. H. H., Lei, S., Ali, M., Doronin, D., & Hussain, S. T. (2020). Prosumption: bibliometric analysis using HistCite and VOSviewer. *Kybernetes*, 49(3), 1020–1045. <https://doi.org/10.1108/K-12-2018-0696>

- 8492 *The Use of Games for Learning in Primary Schools: A Bibliometrics Analysis of the Scopus Database – Afib Rulyansah, Emy Yunita Rahma Pratiwi, Ribus Prastiwi Sriwijayanti, Ani Anjarwati*
DOI: <https://doi.org/10.31004/basicedu.v6i5.3881>
- Sibgatullin, I. R., Korzhuev, A. V., Khairullina, E. R., Sadykova, A. R., Baturina, R. V., & Chauzova, V. (2022). A Systematic Review on Algebraic Thinking in Education. *Eurasia Journal of Mathematics, Science and Technology Education*, 18(1), 1–15. <https://doi.org/10.29333/EJMSTE/11486>
- Sumtsova, O., Aikina, T., Bolsunovskaya, L., Phillips, C., Zubkova, O., & Mitchell, P. (2018). Collaborative learning at engineering universities: Benefits and challenges. *International Journal of Emerging Technologies in Learning (IJET)*, 13(1), 160–177.
- Susman, K., & Pavlin, J. (2020). Improvements in teachers' knowledge and understanding of basic astronomy concepts through didactic games. *Journal of Baltic Science Education*, 19(6), 1020–1033. <https://doi.org/10.33225/jbse/20.19.1020>
- Syaflin, H. M., Nurdin, F., Widiastuti, Syafaruddin, Lanos, M. E. C., & Syaflin, S. L. (2021). Basic locomotor motion characteristic design using games model for elementary school student. *International Journal of Human Movement and Sports Sciences*, 9(3), 560–567. <https://doi.org/10.13189/SAJ.2021.090323>
- T. Alshammari, M. (2020). Evaluation of Gamification in E-Learning Systems for Elementary School Students. *TEM Journal*, 806–813. <https://doi.org/10.18421/TEM92-51>
- Tazouti, Y., Boulaknadel, S., & Fakhri, Y. (2019). JeuTICE: An arabic serious game to enhance mathematics skills of young children. *International Journal of Emerging Technologies in Learning*, 14(22), 252–265. <https://doi.org/10.3991/ijet.v14i22.11119>
- Vázquez-Vílchez, M., Garrido-Rosales, D., Pérez-Fernández, B., & Fernández-Oliveras, A. (2021). Using a cooperative educational game to promote pro-environmental engagement in future teachers. *Education Sciences*, 11(11). <https://doi.org/10.3390/educsci11110691>
- Xenofontos, C., & Alkan, S. H. (2022). Prospective Primary Teachers' Professional Noticing in Non-Formal Learning Environments: The Case of a Mathematics Fair. *Education Sciences*, 12(1). <https://doi.org/10.3390/educsci12010055>
- Yaşar, H., Kılıcı, M., & Karataş, A. (2020). The views and adoption levels of primary school teachers on gamification, problems and possible solutions. *Participatory Educational Research*, 7(3), 265–279. <https://doi.org/10.17275/per.20.46.7.3>
- Zabala-Vargas, S A, García-Mora, L., Arciniegas-Hernández, E., Reina-Medrano, J., de Benito-Crosetti, B., & Darder-Mésquida, A. (2022). Didactic Strategy Mediated by Games in the Teaching of Mathematics in First-Year Engineering Students. *Eurasia Journal of Mathematics, Science and Technology Education*, 18(2). <https://doi.org/10.29333/ejmste/11707>
- Zabala-Vargas, Sergio A., García-Mora, L. H., Arciniegas-Hernandez, E., Reina-Medrano, J. I., De Benito-Crosetti, B., & Darder-Mésquida, A. (2021). Strengthening Motivation in the Mathematical Engineering Teaching Processes – A Proposal from Gamification and Game-Based Learning. *International Journal of Emerging Technologies in Learning (IJET)*, 16(06), 4. <https://doi.org/10.3991/ijet.v16i06.16163>