

DAFTAR PUSTAKA

- Abidin, Z. (2020). Efektifitas Pembelajaran Berbasis Masalah, Pembelajaran Inquiri, dan Pembelajaran Berbasis Proyek Terhadap Kemampuan Koneksi Matematis. *Profesi Pendidikan Dasar*, 7(1), 36–53.
- Aisyah, S., Juandi, D., & Jupri, A. (2022). IMPLEMENTASI MODEL PROBLEM BASED LEARNING (PBL) TERHADAP KEMAMPUAN KONEKSI MATEMATIS SISWA. *Aksioma*, 11(2).
<https://doi.org/https://doi.org/10.24127/ajpm.v11i2.4728>
- Alabdulaziz, M. S., & Alhammadi, A. A. (2021). Effectiveness of Using Thinking Maps Through the Edmodo Network to Develop Achievement and Mathematical Connections Skills Among Middle School Students. *Journal of Information Technology Education: Research*, 20, 1–34.
<https://doi.org/10.28945/4681>
- Andrews, J. D. W. (1984). Discovery and Expository Learning Compared: Their Effects on Independent and Dependent Students. *The Journal of Educational Research*, 78(2), 80–89. <https://doi.org/10.1080/00220671.1984.10885578>
- Anugraheni, I., Gufron, A., & Purnomo, Y. W. (2025). The Impact of Realistic Problem-Based Learning on Mathematical Connection Abilities. *Cogent Education*, 12(1), 17.
- Anwar, S., Pujiastuti, H., & Mutaqin, A. (2019). PENGARUH CONTEXTUAL TEACHING AND LEARNING DAN SELF REGULATED LEARNING TERHADAP KEMAMPUAN KONEKSI MATEMATIS. *Prima*, 3(2).
- Arends, R. I. (2012). *Learning To Teach* (Vol. 17). New York: McGraw-Hill.
- Asri, D. N. (2018). *Prokrastinasi Akademik: Teori Riset Dalam Perspektif Pembelajaran Berbasis Proyek dan Self-Regulated Learning*. Unpima Publisher.
- Ausubel, D. (1968). *Educational Psychology: A Cognitive View*. Holt, Rinehart and Wilson Inc.
- Bandura, A. (1991). Social Cognitive Theory of Self Regulation. In *Organizational Behavior and Human Decision Processes* (Vol. 50, Issue 2, pp. 248–287).
- Barrows, H. S. (1996). Problem Based Learning: In Medicine and Beyond: A Brief Overview. In *Jossey Bass-Publisher* (Vol. 68). Jossey Bass-Publisher.

- Barrows, H. S., & Tamblyn, R. M. (1980). Problem-Based Learning: An Approach to Medical Education. In *The American Journal of Occupational Therapy* (Vol. 35, Issue 8). Springer Publishing Company. <https://doi.org/10.5014/ajot.35.8.539b>
- Beltrán-Pellicer, P., & Godino, J. D. (2020). An onto-semiotic approach to the analysis of the affective domain in mathematics education. *Cambridge Journal of Education*, 50(1), 1–20. <https://doi.org/10.1080/0305764X.2019.1623175>
- Bicer, A., Bicer, A., Capraro, M., & Lee, Y. (2023). Mathematical Connection is at the Heart of Mathematical Creativity. *Creativity*, 10(1–2), 17–40. <https://doi.org/10.2478/ctra-2023-0002>
- Bruner, J. S. (1966). *Toward a Theory of Instruction*. Massachusetts: The Belknap Press.
- Businkas, A. M. (2008). *Conversations About Connections: How Mathematics Secondary Teachers Conceptualize and Contend with Mathematical Connection* [Simon Fraser University]. <http://conversations.africa.si.edu/about/>
- Cantillo-Rudas, B. M., Rodríguez-Nieto, C. A., Moll, V. F., & Rodríguez-Vásquez, F. M. (2024). Mathematical and neuro-mathematical connections activated by a teacher and his student in the geometric problems-solving: A view of networking of theories. *Eurasia Journal of Mathematics, Science and Technology Education*, 20(10). <https://doi.org/10.29333/ejmste/15470>
- Cetin, B. (2022). Investigating of Fourth Grade Primary school student's self Regulated Learning and Successes in Mathematics Course in Term of Socio-Economic Level. *International Journal of Curriculum and Instruction*, 15(1), 20.
- Choy, B. H., & Toh, T. L. (2020). *Mathematics- Connection and Beyond* (Vol. 17).
- Cooper, T. E. (2012). Using Virtual Manipulatives with Pre-service Mathematics Teachers to Create: Representational models. *International Journal for Technology in Mathematics Education*, 19(3), 105–116.
- Corno, L., & Randi, J. (1999). *Self Regulated Learning*. Self-Regulated Learning. <http://www.personal.psu.edu/users/h/x/hxk223/self.htm>
- Creswell, J. W. (2009). Research Design. In *Book* (Third). Sage Publishing.
- Creswell, J. W. (2012). Educational Research. In *Pearson* (Vol. 1, Issue 1). Pearson.

- de Corte, E., Verschaffel, L., & Eynde, P. O. (2000). Chapter 21 - Self-Regulation: A Characteristic and a Goal of Mathematics Education. *Handbook of Self-Regulation*, 687–726.
<http://www.sciencedirect.com/science/article/pii/B9780121098902500500>
- de Gamboa, G., Badillo, E., & Font, V. (2023). Meaning and Structure of Mathematical Connections in the Classroom. *Canadian Journal of Science, Mathematics and Technology Education*, 23(2), 241–261.
<https://doi.org/10.1007/s42330-023-00281-2>
- DiBenedetto, M. K. (2018). Connecting Self-regulated Learning and Performance with Instruction Across High School Content Areas. In *Springer*. Springer.
https://doi.org/10.1007/978-3-319-90928-8_14
- Djaali. (2021). *Metode Penelitian Kuantitatif*. Jakarta: Bumi Aksara.
- Ebel, R. L., & Frisbie, D. A. (1991). *Essential of Educational Measurment*. New Jearsey: Prentice-Hall.
- Ernawati, Zulmaulida, R., & Saputra, E. (2021). *Problematika Pembelajaran Matematika*. Yayasan Penerbit Muhammad Zaini.
- Fendrik, M., Marsigit, & Wangid, M. N. (2020). Analysis of riau traditional game-based ethnomathematics in developing mathematical connection skills of elementary school students. *Elementary Education Online*, 19(3), 1605–1618.
<https://doi.org/10.17051/ilkonline.2020.734497>
- Firdaus, F. M., Afani, A. S., Utami, N. N., & Al Mega, R. (2022). Pengaruh Model Realistic Mathematics Education Terhadap Kemampuan Koneksi Matematis Siswa. *JMIE (Journal of Madrasah Ibtidaiyah Education)*, 6(1), 32.
<https://doi.org/10.32934/jmie.v6i1.399>
- Fitriani, M. N., Winarti, E. R., & Andriyani, W. (2022). Kemampuan koneksi matematis pada pembelajaran model PBL dengan pendekatan STEM. *Prisma, Prosiding Seminar Nasional Matematika*, 5(4), 612–618.
- Flores, M. M. (2010). Using the concrete-representational-abstract sequence to teach subtraction with regrouping to students at risk for failure. *Remedial and Special Education*, 31(3), 195–207.
<https://doi.org/10.1177/0741932508327467>
- Fosnot, C. T. (2005). *Constructivism: Theory, Perspectives, and Practice*. Teachers

College Press.

- Garcia-Garcia, J., & Dolores-Flores, C. (2017). Intra-mathematical connections made by high school students in performing calculus. *International Journal of Mathematic Ini Science and Technology*, 21(2), 2–27. <https://doi.org/10.1080/0020739X.2017.1355994>
- Hargis, J., Iwamoto, D. H., Borner, R., & Chandler, P. (2017). Self-Regulated Learning as a Critical Attribute for Successful Teaching and Learning. *International Journal for the Scholarship of Teaching and Learning*, 11(2), 1–10. <https://doi.org/10.20429/ijstl.2017.110207>
- Hatisaru, V. (2024). Mathematical connections – a growing construct.pdf. *International Journal of Mathematic Ini Science and Technology*, 55(3). <https://doi.org/10.1080/0020739X.2023.2283346>
- Havenga, M., Olivier, J., & Bunt, B. J. (2023). *Problem-based learning and pedagogies of of playplay* (Vol. 11). Aosis Publishing.
- Heryadi, D., & Sundari, R. S. (2020). Expository Learning Model. *International Journal of Education and Research*, 8(1), 207–216. https://www.researchgate.net/publication/339566849_EXPOSITORY_LEARNING_MODEL/link/5e59297b4585152ce8f660f0/download
- Hidayati, E. (2023). *PENGARUH MODEL PEMBELAJARAN LAPS - HEURISTIC TERHADAP KEMAMPUAN KOMUNIKASI DAN KONEKSI MATEMATIS SISWA DITINJAU DARI GAYA BELAJAR SISWA*. UIN Raden Intan Lampung.
- Hiebert, J., & Carpenter, T. P. (1992). *Learning and Teaching with Understanding*. NCTM.
- Hindun, S., Sapitri, Y. E., & Rohaeti, E. E. (2019). INCREASEMENT OF MATHEMATICAL CONNECTION ABILITY AND SELF-EFFICACY OF STUDENTS THROUGH PROBLEM-BASED LEARNING APPROACH WITH MULTIMEDIA.pdf. *Journal of Innovatife Mathematics Learning*, 2(2).
- Hmelo-Silver, C. E. (2004). Problem-based learning: What and how do students learn? *Educational Psychology Review*, 16(3), 235–266. <https://doi.org/10.1023/B:EDPR.0000034022.16470.f3>

- Hoong, L. Y., Kin, H. W., & Pien, C. L. (2015). Concrete-Pictorial-Abstract: Surveying its Origins and Charting its Future. *The Mathematics Educator*, 16(1), 1–18.
- Ibrahim, A., Alang, A. H., Madi, & Baharudin. (2018). *Metodologi Penelitian* (Vol. 1, Issue 1). Gunadarma Ilmu.
- Joyce, B., & Weill, M. (2015). *Model of Teaching 9th Ed*. New Jearsey: Pearson.
- Kadir. (2015). *Statistika Terapan: Konsep, Contoh dan Analisis Data dengan Program SPSS*. Jakarta: Rajawali Press.
- Kafah, A. K. N., Efianingrum, A., Kholifah, L., Pangestu, A., & Sugara, U. (2024). Teaching at the Right Level-based Project-based Learning on Mathematical Connections of Fourth Grade Elementary School Students. *International Journal of Elementary Education*, 8(2), 314–323. <https://doi.org/10.23887/ijee.v8i2.73250>
- Kelly, T. L. (1939). The selection of upper and lower groups for the validation of test items. *Journal of Educational Psychology*, 30(1).
- Kemendikbud. (2022). *Capaian Pembelajaran Mata Pelajaran Matematika Fase A-F*. BSKAP.
- Killpatrick, Swafford, J., Findell, J., & Bradford. (2002). Adding it up: Helping children learn mathematics. In *Book Reviews*. <https://doi.org/10.17226/9822>
- Lee, M., Lee, S. Y., Kim, J. E., & Lee, H. J. (2023). Domain-specific self-regulated learning interventions for elementary school students. *Learning and Instruction*, 88. <https://doi.org/10.1016/j.learninstruc.2023.101810>
- Malik, A. (2018). Pengantar Statistika Pendidikan. In *Deepublish*. Deepublish Publisher. <https://doi.org/10.1145/2505515.2507827>
- Masrom, A. N. (2021). *Metode Penelitian Pendekatan Kuantitatif dan Kualitatif*. Lakeisha.
- Maullyda, M. A. (2020). Paradigma Pembelajaran Matematika Berbasis Nctm. In *Humanika, Kajian Ilmiah Mata Kuliah Umum* (Vol. 21, Issue January).
- Moust, J., Bouhuijs, P., & Schmidt, H. (2021). *Introduction to problem-based learning : A guide for students* (4th ed.). Noordhoff Uitgevers bv.
- Mursidik, E. M., Nusantara, T., As'ari, A., & Muksar, M. (2024). Self Regulated Learning profile of Student with auditory learning style in mathematics lesson.

- Premiere Educandum*, 14(1), 1–13. <https://doi.org/10.25273/pe.v14i1.18306>
- Nahampun, J. (2018). Inovasi dalam Penggunaan Metode Ekspositori dalam Pembelajaran Fisika. *Ilmu Kependidikan*, 1–9. http://repositori.kemdikbud.go.id/13283/1/Metode_Ekspositori_Jeperis.pdf
- NCTM. (2000). *Principles and Standards for School Mathematics*. New York: NCTM.
- Ninidiasari, H., & Farmah, E. (2025). Pengaruh Model Problem Based Learning Dengan Pendekatan Diferensiasi Terhadap Kemampuan Koneksi Matematis Peserta Didik Kelas 6 Pada Materi Perbandingan. *Jurnal Penelitian Dan Pembelajaran Matematika*, 18(1), 62–73.
- Nornadiah, M. R., & Yap, B. W. (2011). Power comparisons of Shapiro-Wilk, Kolmogorov-Smirnov, Lilliefors and Anderson-Darling tests. *Journal of Statistical Modeling and Analytics*, 2(January 2011), 21–33.
- Nurmahanani, I., Wiriyaniti, K., & Mulyati, Y. (2022). *The Effect of the Comic-Assisted Concrete Pictorial Abstract (CPA) Approach on the Fifth Graders' Ability to Read Statistics* (pp. 262–267). https://doi.org/10.2991/978-2-494069-91-6_40
- Oktoriyadi. (2020). *CONCRETE-PICTORIAL-ABSTRACT (CPA) Suatu Pendekatan yang Mempelajari Konten Matematika Secara Representasi*. CV Pustaka Adi Ridwan.
- Oseña, R. D., & Tesorero, M. M. (2024). Concrete-Pictorial-Abstract Learning Toolkit : A Strategy To Help Improve The Pupil's Performance In Addition. *Psychology And Education*, 19(1), 48–55. <https://doi.org/10.5281/zenodo.10990942>
- Padilah, R. R., Sumarni, & Adisatuty, N. (2024). ANALISIS KEMAMPUAN KONEKSI MATEMATIS SISWA PADA MATERI SEGIEMPAT DITINJAU DARI SELF-REGULATED LEARNING.pdf. *JES-MAT*, 7(1).
- Pintrich, P. R., & Groot, E. de. (1990). Motivational and Self-Regulated Learning Components of Classroom Academic Performance. *Journal of Educational Psychology*, 82(1), 13–15. <https://doi.org/10.1007/BF02338175>
- Purnomo, Y., Nabillah, R., Aziz, T. A., & Widodo, S. A. (2024). Fostering mathematical connections and habits of mind : A problem-based learning

- module for elementary education. *Infinity*, 13(2), 333–348.
<https://doi.org/10.22460/infinity.v12i2.p333-348>
- Putri, H. E. (2017). *Pendekatan Concret-Pictorian-Abstract, Kemampuan-kemampuan Matematis, dan Rancangan Pembelajarannya*. UPI Sumedang Press.
- Putri, L. I., Gilar Pandu Ananta, & Syafa'at, I. (2024). Is the Problem Based Learning Using Media Puzzle Effective On Student's Mathematical Connection Ability? *Al Ibtida*, 11(2), 228–239.
- Putro, S. C., & Hidayat, W. N. (2021). *Buku Ajar Evaluasi Pendidikan*. Ahli Media Press.
- Qoriah Istiqomah, C. N. (2021). Perbandingan kemampuan koneksi matematis siswa dengan model pembelajaran Discovery dan ekspositori. *PLUSMINUS: Jurnal Pendidikan Matematika*, 1(1), 10.
- Ramadasae, E., Budiyono, & Indriati, D. (2019). Relationship between self-regulated learning and mathematical connection ability in junior high school. *Aip Conference Proceedings*. <https://doi.org/10.1063/1.5139824>
- Rohaendi, N. (2020). Mathematics Connection Ability and Self Regulated Learning of Junior High School Students Trough Problem-Based Learning Approach. *JIML*, 3(3), 102–111.
- Ross, M. (2025). *Singapore Math Method*. Publifye AS.
- Rusman. (2021). *Model-model Pembelajaran: Mengembangkan Profesionalisme Guru*. Depok: Rajawali Press.
- Salamun, Widyastuti, A., Syawaludin, & Astuti, R. N. (2023). *Buku Referensi Model-Model Pembelajaran Inovatif*. Lampung: Yayasan Kita Menulis.
- Sanjaya, W. (2016). *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Prenadamedia.
- Schunk, D. H. (2012). Learning Theories An Educational Perspective. In *Pearson* (6th ed., Vol. 71, Issues 1–4). Pearson. <https://doi.org/10.1007/BF00751323>
- Sello, L., Kgaladi, M., & Paul, M. (2024). The Use of Concrete-Pictorial-Abstract Approach to Enhance Learners' Conceptual Understanding of Fractions. *Edumatica*, 14(3), 187–198. <https://doi.org/10.22437/edumatica.v14i3.37168>
- Shafiee, M. S., & Meng, C. (2023). Impact of Concrete-Pictorial Abstract Approach

- with Collaborative Lesson Research on Year Four Pupils's Proficiency in Volume. *Asia Pasific Journal of Educators and Education*, 38(1), 120–142.
- Shafiee, M. S., & Meng, C. C. (2021). Impact of Concrete-Pictorial-Abstract Approach with Collaborative Lesson Research on Year Four Pupils' Proficiency in Perimeter. *Pertanika Journal of Social Sciences and Humanities*, 29(4), 2301–2313. <https://doi.org/10.47836/pjssh.29.4.11>
- Shuxratovna, R. N. (2024). Pedagogical Possibilities of Implementing the CPA (Concrete-Pictorial-Abstract) Approach. *International Journal of Pedagogics*, 4(2), 68–76. <https://doi.org/10.37547/ijp/volume04issue02-13>
- Snow, R. E. (1991). Aptitude-treatment interaction as a framework for research on individual differences in psychotherapy. *Journal of Consulting and Clinical Psychology*, 59(2).
- Sugiyono. (2013). *Metode Penelitian Kuantitatif Kualitatif dan R&D* (13th ed.). Bandung: Alfabeta.
- Sugiyono. (2023). *Statistika Untuk Penelitian*. Alfabeta.
- Sumarmo, U. (2004). Kemandirian Belajar-Apa, Mengapa, dan Bagaimana Dikembangkan Pada Peserta Didik. *Makalah Pada Seminar Tingkat Nasional. FPMIPA UNY*, 8, 1–9.
- Suo Hui, C., Ngan Hoe, L., & Phong Lee, K. (2017). Teaching and Learning with Concrete-Pictorial-Abstract Sequence-A Proposed Model. *The Mathematics Educator*, 17(2), 1–28.
- Suratmi, & Azizah, N. (2025). Improving Learning Outcomes in Fraction Addition Through the Concrete-Representational Abstract Method Based on Problem Based Learning in Elementary School Students' Learning Difficulties. *Journal of Innovation and Research in Primary Education*, 4(3), 1380–1392. <https://doi.org/10.56916/jirpe.v4i3.1559>
- Suryaningsih, T., Nisa, K., Widiyanto, R., Latif, A. E., & Siron, Y. (2025). Enhancing Elementary Student Numeracy Through Concrete Pictorial Abstract Approach. *Jouurnal of Integreted Elementary Education*, 5(1), 224–236. <https://doi.org/10.21580/jieed.v5i1.25383>
- Susilawati, S., & Supriyatno, T. (2023). Problem-Based Learning model in improving critical thinking ability of elementary school students. *Advances in*

- Mobile Learning Educational Research*, 3(1), 638–647.
<https://doi.org/10.25082/amlr.2023.01.013>
- Sweller, J. (2020). Cognitive load theory and educational technology. *Educational Technology Research and Development*, 68(1).
www.jstor.org/stable/48727426
- Syafrimen, Nurhasanah, S., Jayadi, A., & Sa'diyah, R. (2019). *Buku Strategi Pembelajaran*. Jakarta: Edu Pustaka.
- Syamsidah, S., & Hamidah, H. (2018). *Buku Model Problem Based Learning*. In *Deepublish* (Vol. 1, Issue 1). Sleman: Deepublish.
- Tan, O.-S. (2003). *Problem Based Learning Innovation*. Seng Lee Press.
- Tenzin, S. (2024). The Implementation of the Concrete-Pictorial-Abstract (CPA) Instructional Model in Teaching Primary Mathematics in Thimphu Dzongkhag. In *Rabsel* (Vol. 25, Issue 1). <https://doi.org/10.5281/enodo.14524332>
- Tinenti, Y. R. (2020). *Model dan Pendekatan Pembelajaran*. Deepublish Publisher.
- Tong, L. C., Rosli, M. S., & Saleh, N. S. (2022). Enhancing HOTS using Problem-Based Learning and Digital Game in the Context of Malaysian Primary School. *International Journal of Interactive Mobile Technologies*, 16(2), 101–112. <https://doi.org/10.3991/ijim.v16i02.27677>
- Utami, A. D., Yurniwati, & Hariyani, L. (2024). The Effect Of Discovery Learning In Mathematics Learning On Computational Thinking In Terms Of Self-Regulated Learning (Srl) In Student. *Jurnal Elementaria Edukasia*, 7(2), 2801–2814. <https://doi.org/10.31949/jee.v7i2.9551>
- Wahjusaputri, S., & Purwanto, A. (2021). *Statistika Pendidikan*. CV Bintang Semesta Media.
- Walle, V. de, Krapp, J., Bay-Williams, & M.Karen. (2013). *Elementary and Middle School Mathematics Teaching Developmentally* (8th ed., Vol. 8, Issue 1). Pearson.
- Wang, Y., & Sperling, R. A. (2020). Characteristics of Effective Self-Regulated Learning Interventions in Mathematics Classrooms: A Systematic Review. *Frontiers in Education*, 5. <https://doi.org/10.3389/feduc.2020.00058>
- Wijoyo, H., & Haudi, H. (2021). *Strategi pembelajaran* (1st ed., Issue March).

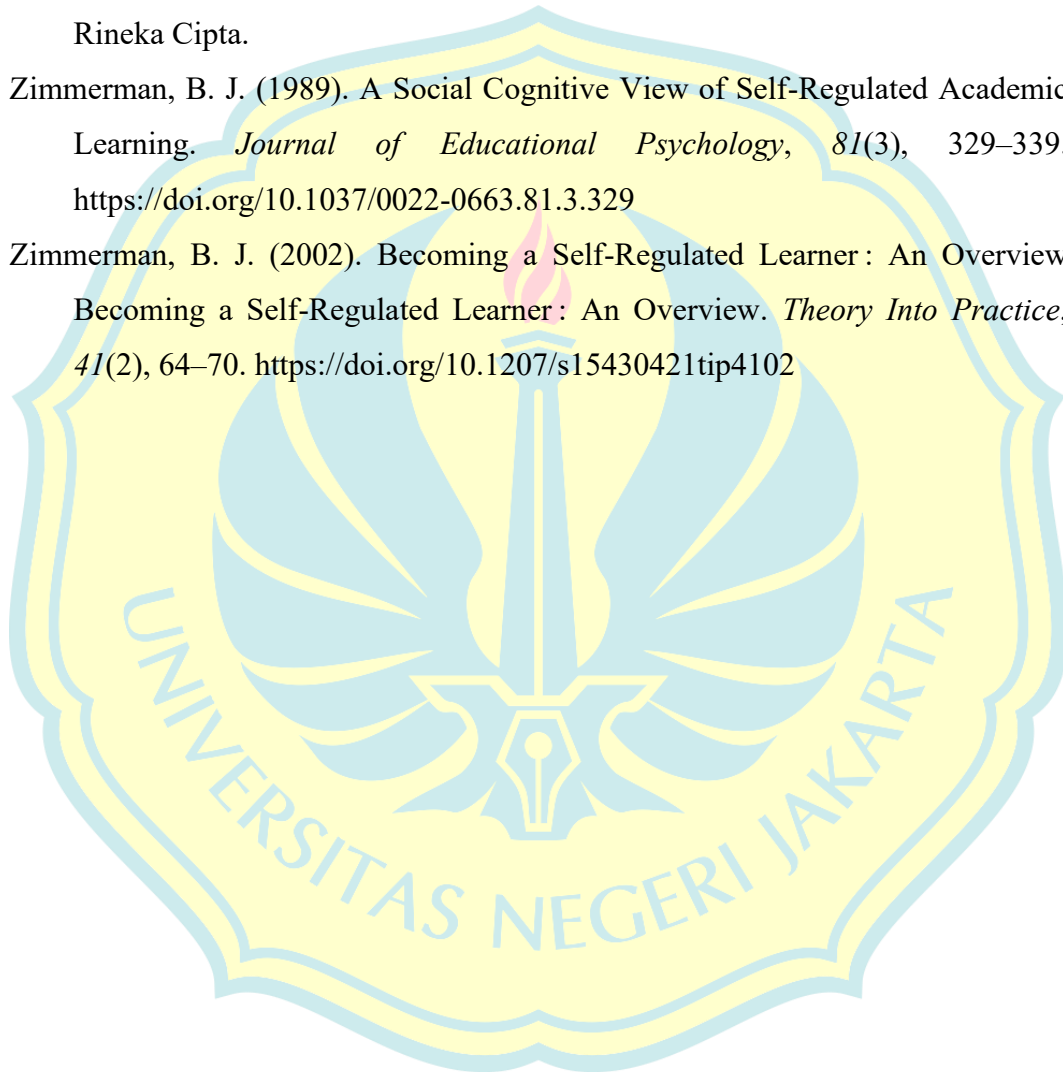
Insan Cendikia Mandiri.

Wulansasi, A., & Muryani, L. (2024). Pendekatan Concrete Pictorial Abstract (CPA) dalam Meningkatkan Koneksi Matematis Siswa Sekolah Dasar. *IRES*, 1(2025), 16–26.

Zamarah, S. B., & Zain, A. (2013). *STRATEGI BELAJAR MENGAJAR*. Jakarta: Rineka Cipta.

Zimmerman, B. J. (1989). A Social Cognitive View of Self-Regulated Academic Learning. *Journal of Educational Psychology*, 81(3), 329–339. <https://doi.org/10.1037/0022-0663.81.3.329>

Zimmerman, B. J. (2002). Becoming a Self-Regulated Learner: An Overview. *Theory Into Practice*, 41(2), 64–70. <https://doi.org/10.1207/s15430421tip4102>



Intelligentia - Dignitas