

DAFTAR PUSTAKA

- Abdel-Khalek, A. M. (2016). Introduction to the psychology of self-esteem. In F. Holloway (Ed.), *Self-esteem: perspectives, influences, and improvement strategies* (pp. 1-23). Nova Science Publishers.
- Afandi., Sajidan., Akhyar, M., & Suryani, N. (2019). *Jurnal Pendidikan IPA Indonesia 21st-Century Skills Standars for Prospective Science Teachers : A Delphi Study*. 8(1), 89–100. <https://doi.org/10.15294/jpii.v8i1.11647>
- Agbulu, O. N., & Idu, E. E. (2008). The Impact of Participatory and Expository Approaches on Learning of Agricultural Science in Senior Secondary Schools in Benue State. *Journal of Social Sciences*, 16(3), 245–249. <https://doi.org/10.1080/09718923.2008.11892625>
- Akpur, U. (2020). Critical, Reflective, Creative Thinking and Their Reflections on Academic Achievement. *Thinking Skills and Creativity*, 37. <https://doi.org/10.1016/j.tsc.2020.100683>
- Ali, Z., & Bhaskar, S. B. (2016). Basic statistical tools in research and data analysis. *Indian Journal of Anaesthesia*, 60(9), 662–669. <https://doi.org/10.4103/0019-5049.190623>
- Alkhateeb, M. A., & Al-Duwairi, A. M. (2019). The Effect of Using Mobile Applications (GeoGebra and Sketchpad) on the Students' Achievement. *International Electronic Journal of Mathematics Education*, 14(3), 523–533. <https://doi.org/10.29333/iejme/5754>
- Almulla, M.A., & Al-Rahmi, W.M. (2023). Integrated Social Cognitive Theory with Learning Input Factors: The Effects of Problem-Solving Skills and Critical Thinking Skills on Learning Performance Sustainability. *Sustainability*, 15, 3978. <https://doi.org/10.3390/su1505397>
- Alyani, F., & Putri, N. D. S. (2022). Students' Mathematical Critical Thinking Using Geogebra Software Based on Adversity Quotient. *Jurnal Pendidikan Dan Pengajaran*, 55(3), 562–575. <https://doi.org/10.23887/jpp.v55i3.47491>
- Andrews, J. D. (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>
- Arikan, E. E., & Unal, H. (2015). Investigation of problem-solving and problem-posing abilities of seventh-grade students. *Kuram ve Uygulamada Egitim Bilimleri*. <https://doi.org/10.12738/estp.2015.5.2678>
- Anagün, S. S. (2018). Teachers' Perceptions about the Relationship between 21st Century Skills and Managing Constructivist Learning Environments.

International Journal of Instruction, 11(4), 825– 840.
<https://doi.org/10.12973/iji.2018.11452a>.

Anderson, J. A. (2003). *Critical Thinking Across the Disciplines*. Makalah pada Faculty Development Seminar in New York City.

Andrews, R. (2015). Critical thinking and/or argumentation in higher education. In M. Davies, & R. Barnett (Eds.). *The palgrave handbook of critical thinking in higher education* (pp. 49–62). London: Palgrave Macmillan.
https://doi.org/10.1057/9781137378057_3

Anggraeni, Y. (2012). *Peningkatan Kemampuan Penalaran Dan Komunikasi Matematis Siswa Smp Melalui Reciprocal Teaching*. Universitas Pendidikan Indonesia | Repository.Upi.Edu. 51–79

Arthur-Baidoo, F., Azumah, D. A., Osei-Manu, F., & Annan, M. K. (2022). Learners' Perceptions of Computer-Assisted Instruction Approach Teaching and Learning of photosynthesis in Biology Lessons. *Trends Journal of Sciences Research*, 1(1), 8–16. <https://doi.org/10.31586/ojmr.2022.324>

Bahtiar, R. S., & Suryarini, D. Y. (2019). Problem Posing Approach to Optimization Creative Thinking Ability on Mathematics for Elementary Students. *International Journal for Educational and Vocational Studies*, 1(5), 406–410. <https://doi.org/10.29103/ijevs.v1i5.1618>

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>

Basri, H., Purwanto, As'ari, A. R., & Sisworo. (2019). Investigating Critical Thinking Skill of Junior High School in Solving Mathematical Problem. *International Journal of Instruction*, 12(3), 745-758. <https://doi.org/10.29333/iji.2019.12345>

Baumanns, L., & Rott, B. (2020). Rethinking problemposing situations: A review. *Investigations in Mathematics Learning*. <https://doi.org/10.1080/19477503.2020.1841501>

Baumanns, L., & Rott, B. (2021): Developing a framework for characterising problem-posing activities: A review. *Research in Mathematics Education*. <https://doi.org/10.1080/14794802.2021.1897036>

Beilin, H. & Fireman, G. (1999). *The foundation of Piaget's theories: mental and physical action* 27:221-46. [https://doi.org/10.1016/S0065-2407\(08\)60140-8](https://doi.org/10.1016/S0065-2407(08)60140-8)

Beyer, Barry K. (1985). *Critical Thinking*. Blomington: Phi Dhellta Kappa

- Belecina, R. R., & Ocampo, J. M. (2018). *Effecting Change on Students' Critical Thinking in Problem Solving*. 10(February), 109–118.
- Belecina, Rene R. & Jose M. Ocampo, Jr. (2018). “Effecting Change on Students' Critical Thinking in Problem Solving” in EDUCARE: International Journal for Educational Studies, Volume 10(2), February, pp.109-118
- Benabou, R., & Tirole, J. (2002). Self-confidence and personal motivation. *The Quarterly Journal of Economics*, 117(3), 871–915. <https://doi.org/10.1162/003355302760193913>
- Bezanilla, M. J., Fernández-Nogueira, D., Poblete, M., & Galindo-Domínguez, H. (2019). Methodologies for teaching-learning critical thinking in higher education: The teacher's view. *Thinking skills and creativity*, 33, 100584. <https://doi.org/10.1016/j.tsc.2019.100584>
- Bicer, A., Lee, Y., Perihan, C., Capraro, M. M., & Capraro, R. M. (2020). Considering mathematical creative self-efficacy with problem posing as a measure of mathematical creativity. *Educational Studies in Mathematics*, 105(3), 457–485. <https://doi.org/10.1007/s10649-020-09995-8>
- Bicer, A., Marquez, A., Valesca, K., Colindres, M., Ann, A., Berenice, L., Audette, L. M., Perihan, C., & Lee, Y. (2021). Investigating creativity-directed tasks in middle school mathematics curricula. *Thinking Skills and Creativity*, 40(March), 100823. <https://doi.org/10.1016/j.tsc.2021.100823>
- Birgin, O., & Acar, H. (2020). The Effect of Computer-Supported Collaborative Learning Using GeoGebra Software on 11th Grade Students' Mathematics Achievement in Exponential and Logarithmic Functions. *International Journal of Mathematical Education in Science and Technology*, 0(0), 1–18. <https://doi.org/10.1080/0020739X.2020.1788186>
- Bjorklund, D. F. (2012). *Children's Thinking: Cognitive Development and Individual Differences*. Belmont, USA: Wadsworth, Cengage Learning
- Bonotto, C., & Santo, L. D. (2015). *On the Relationship Between Problem Posing, Problem Solving, and Creativity in the Primary School*. In F. M. Singer, N. F. Ellerton, & J. F. Cai (Eds.), *Mathematical problem posing* (pp. 103–123). New York, NY: Springer
- Bu, L., Haciomeroglu, E. S., & Mumba, F. (2011). Mathematical Problem Solving in Dynamic Learning Environments: *The Case of Geogebra*. *Proceedings of The Second North American Geogebra Conference: Where Mathematics, Education and Technology Meet*. University of Toronto. June 17- 18. ISBN 978-0-920233-65-8 (CD)

- Burton, K., & Platts, B. (2006). *Building self-confidence or dummies*. Chi Chester, England: John Willey & Sons.
- Butler, H. A., Dwyer, C. P., Hogan, M. J., Franco, A., Rivas, S. F., Saiz, C., & Almeida, L. S. (2012). Halpern Critical Thinking Assessment and real-world outcomes: Cross-national applications. *Thinking Skills and Creativity*, 7(2), 112-121. <https://doi.org/10.1016/j.tsc.2012.04.001>
- Branden, N. (1985). *Honoring the self: Self-esteem and personal transformation*. Los Angeles, CA: Bantam Books.
- Broderick, P., & Blewitt, P. (2015). *The life span: Human development for helping professionals* (4th ed.). Upper Saddle River, N.J.: Pearson Merrill Prentice Hall.
- Brown, A., Johnson, L., & Lee, S. (2020). The Impact of Self-Confidence on Critical Thinking Skills in College Students. *Journal of Educational Psychology*, 112(3), 456–467.
- Brown, G., & Desforges, C. (2021). Piaget's theory of cognitive development. *Piaget's Theory*, 7(2), 32–57. <https://doi.org/10.4324/9780203715796-5>
- Brown, S. I., & Walter, M. I. (2005). *The art of problem posing*. Lawrence Erlbaum Associates.
- Cai, J., Hwang, S., Jiang, C., & Silber, S. (2015). Problem posing research in mathematics: Some answered and unanswered questions. In F. M. Singer, N. Ellerton, & J. Cai (Eds.), *Mathematical problem posing: From research to effective practice* (pp. 3–34). Springer. <https://doi.org/10.1007/978-1-4614-6258-3>
- Cai, J., & Hwang, S. (2019). Learning to teach through mathematical problem posing: Theoretical considerations, methodology, and directions for future research. *International Journal of Educational Research*, September 2018, 0–1. <https://doi.org/10.1016/j.ijer.2019.01.001>
- Campbell, D. T., & Stanley, J. (1963). *Experimental and quasi-experimental designs for research*. Chicago, IL: Rand McNally.
- Carmines, E. G., & Zeller, R. A. (1979). *Reliability and Validity Assessment* (Vol. 17). Thousand Oaks, CA: Sage. <https://doi.org/10.4135/9781412985642>
- Chee, J. D., & Queen, T. (2016). *Pearson's Product-Moment Correlation: Sample Analysis*. Jennifer Chee University of Hawaii at Mānoa School of Nursing. <https://doi.org/10.13140/RG.2.1.1856.2726>

- Chen, H., Wen, Y., & Jin, J. (2023). Heliyon Computer-aided teaching and learning of basic elementary functions. *Heliyon*, 9(5), e15987. <https://doi.org/10.1016/j.heliyon.2023.e15987>
- Chen, T., & Cai, J. (2019). An elementary mathematics teacher learning to teach using problem posing: A case of the distributive property of multiplication over addition. *International Journal of Educational Research*, March, 1–11. <https://doi.org/10.1016/j.ijer.2019.03.004>
- Christidamayani, A. P., & Kristanto, Y. D. (2020). *The Effects of Problem Posing Learning Model on Students' Learning Achievement and Motivation*. 2008, 100–108. <https://doi.org/10.23917/ijolae.v2i2.9981>
- Christou, C., Mousoulides, N., Pittalis, M., Pitta-Pantazi, D., & Sriraman, B. (2005). An empirical taxonomy of problem posing processes. *ZDM - International Journal on Mathematics Education*, 37(3), 149–158. <https://doi.org/10.1007/s11858-005-0004-6>
- Çiftçi, Ş. K., & Yıldız, P. (2019). The Effect of Self-Confidence on Mathematics Achievement: The Meta-Analysis of Trends in International Mathematics and Science Study (TIMSS). *International Journal of Instruction*, 12(2), 683–694. <https://doi.org/10.29333/iji.2019.12243a>
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research Methods in Education (8th ed.)*. London: Routledge. <https://doi.org/10.4324/9781315456539>
- Costa, LA. 1985. *Teacher Behaviors that Enable Student Thinking in Developing Mind: A resource Book for Thinking Teaching Thinking*. Alexandria: ASDC.
- Cresswell, C., & Speelman, C. P. (2020). Does mathematics training lead to better logical thinking and reasoning? A cross-sectional assessment from students to professors. *PLoS ONE*, 15(7), Article e0236153. <https://doi.org/10.1371/journal.pone.0236153>
- Creswell, John W. (2012). *Educational Research Planning, Conducting and Evaluating Qualitative And Quantitative Research (Fourth Edi)*. Pearson Education.Inc
- Creswell, J. W., & Guetterman, T. C. (2019). *Educational Research Planning, Conducting, and evaluating Quantitative and Qualitative Research*. In Pearson (VI). Pearson.
- Cronbach, L. J. (1971). *Test validation*. In R. L. Thorndike (Ed.). *Educational Measurement (2nd Ed.)*. Washington, D. C.: American Council on Education

- Cruz, M. (2006). A mathematical problem-formulating strategy. *International Journal for Mathematics Teaching and Learning*, 79–90
- D'Mello, S., Lehman, B., Pekrun, R., & Graesser, A. (2014). Confusion can be beneficial for learning. *Learning and Instruction*, 29(October 2017), 153–170. <https://doi.org/10.1016/j.learninstruc.2012.05.003>
- Darling-Hammond, L., Look, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Journal Applied Developmental Science*, 24(2), 97-140. <https://doi.org/10.1080/10888691.2018.1537791>
- Darmawati, Y., & Mustadi, A. (2023). The Effect of Problem-Based Learning on the Critical Thinking Skills of Elementary School Students. *Jurnal Prima Edukasia*, 11(2), 142–151. <https://doi.org/10.21831/jpe.v11i2.55620>
- Daryanto. (2010). *Media Pembelajaran: Perannya Sangat Penting Dalam Mencapai Tujuan Pembelajaran*. Yogyakarta: Gava Media.
- Das S., Halder U., & Baraigya S. (2014). A study on self-confidence vs. mathematics anxiety in rural teenager students. *International Journal of Informative & Futuristic Research*, 1(9), 1-4.
- Dasen, P. R. (2022). Culture and Cognitive Development. *Journal of Cross-Cultural Psychology*, 53(7–8), 789–816. <https://doi.org/10.1177/00220221221092409>
- Dimiyati, D & Mudjiono, M. (2013). *Belajar dan Pembelajaran*. Jakarta: Rineka Cipta.
- Dwyer, C. P., Hogan, M. J., & Stewart, I. (2014). An integrated critical thinking framework for the 21st century. *Thinking Skills and Creativity*, 12, 43–52. <https://doi.org/10.1016/j.tsc.2013.12.004>
- Depdiknas. 2006. *Kurikulum Tingkat satuan Pendidikan (KTSP) untuk Sekolah Dasar/ MI*. Jakarta: Depdiknas
- Dewey, J. (1910). *How we think* (1991 ed). Buffalo, NY: Prometheus Books.
- Duran, M., & Dökme, I. (2016). The effect of the inquiry-based learning approach on student's critical-thinking skills. *Eurasia Journal of Mathematics, Science and Technology Education*, 12(12), 2887–2908. <https://doi.org/10.12973/eurasia.2016.02311a>

- Eggen, P., & Kauchak, D. (2012). *Strategies and Models for Teachers: Teaching Content and Thinking Skill, Sixth Edition*. Terjemahan oleh Wahono S. 2012. Jakarta: Indeks
- El, N., & See, H. (2019). Studies in Educational Evaluation Does explicit teaching of critical thinking improve critical thinking skills of English language learners in higher education ? A critical review of causal evidence. *Studies in Educational Evaluation*, 60, 140–162. <https://doi.org/10.1016/j.stueduc.2018.12.006>
- Elder, L., & Paul, R. (1994). Critical Thinking: Why We must Transform our Teaching. *Journal of Developmental Education*, 18(1), 34-35. <http://www.jstor.org/stable/42775541>
- Elder, L., & Paul, R. (2010). Critical Thinking: Competency Standards Essential for the Cultivation of Intellectual Skills, Part 1. *Journal of Developmental Education*, 34(2), 38-39.
- Elgrably, H., & Leikin, R. (2021). Creativity as a function of problem - solving expertise : posing new problems through investigations. *ZDM – Mathematics Education*, 0123456789. <https://doi.org/10.1007/s11858-021-01228-3>
- Ennis, R. H. (1985). Critical Thinking and the Curriculum. National Forum: *Phi Kappa Phi Journal*, 65(1), 28-31.
- Ennis, R. H. (1995). *Critical Thinking* (1st edition). Pearson.
- Ennis, R. (1996). *Critical Thinking*. New Jersey: Prentice-Hall.
- Ennis, R. H. (2011). Critical thinking: Reflection and perspective - Part II. *Inquiry: Critical Thinking Across the Disciplines*, 26(2), 5–19. <https://doi.org/10.5840/inquiryctnews201126215>
- Enteria, O., & Casumpang, P. F. H. (2019). Effectiveness of Developed Comic Strips as Intructional Materials in Teaching Specific Science Concepts. *International Journal for Innovation Education and Research*, 7(10), 876–882. <https://doi.org/10.31686/ijer.vol7.iss10.1835>
- Facione, P. (1990). *Critical Thinking: A Statement of Expert Consensus for Purposes of Educational Assessment and Instruction*. California State University, Fullerton: The California Academic Press
- Facione, P. A. (2011). *Critical thinking: What it is and why it counts. (Research Report)*. Millbrae, CA: The California Aca-demic Press.

- Facione, P., A. (2012). Critical Thinking: What It Is and Why It Counts. *Insight Assessment Measuring Critical Thinking Worldwide*. Measured Reasons and The California Academic Press, Millbrae, CA
- Facione, P. A., Sánchez, C. A., Facione, N. C., & Gainen, J. (2010). The Disposition Toward Critical Thinking. *Journal of General Education*, Vol. 44 (1), 1-25
- Fadillah, S., & Ardiawan, Y. (2021). Pengaruh Model Problem Solving Dan Problem Posing Terhadap Kemampuan Pemecahan Masalah Ditinjau Dari Self Confidence. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 10(3), 1373. <https://doi.org/10.24127/ajpm.v10i3.3664>
- Fakhriyah, F. (2014). Application of problem based learning in an effort to develop students' critical thinking skills (Penerapan problem based learning dalam upaya mengembangkan kemampuan berpikir kritis mahasiswa). *Jurnal Pendidikan IPA Indoensia*, vol. 3, no. 1, pp. 95–101. <https://dx.doi.org/10.15294/jpii.v3i1.2906>
- Feng, Z., & Wei, W. (2019). Study on cultivating students' critical thinking ability through higher order questioning. *Proceedings of the 4th International Conference on Contemporary Education, Social Sciences and Humanities (ICCESSH 2019)*, 759–762. <https://doi.org/10.2991/iccessh-19.2019.170>
- Fiqri, M. A., Tanamir, M. D., & Afryansih, N. (2023). Comparison Of Students' Analitical Abilities In Learning Geography Using Models Problem Solving And Problem Posing At SMAN 1 Salimpaung. *Journal Learning Geography*, 4(2), 69–73. <https://doi.org/10.23960/jlg.v4.i2.28615>
- Fishbein, M, & Ajzen I. (1975). *Belief, attitude, intention, and behaviour: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fisher, A. (2009). *Berpikir Kritis: Sebuah Pengantar*. Jakarta: Erlangga
- Fisher, A. & Scriven, M. (1997). *Critical Thinking: Its definition and assessment*. Norwich: Centre for Research in Critical Thinking
- Fischer, M., & Sliwka, D. (2018). Confidence in knowledge or confidence in the ability to learn: An experiment on the causal effects of beliefs on motivation. *Games and Economic Behavior*, September 2016. <https://doi.org/10.1016/j.geb.2018.02.005>
- Florea, N. M., & Hurjui, E. (2015). Critical Thinking in Elementary School Children. *Procedia - Social and Behavioral Sciences*, 180(November 2014), 565–572. <https://doi.org/10.1016/j.sbspro.2015.02.161>

- Foster, M. E. (2023). Evaluating the Impact of Supplemental Computer-Assisted Math Instruction in Elementary School: A Conceptual Replication. *Journal of Research on Educational Effectiveness*, 0(0), 1–25. <https://doi.org/10.1080/19345747.2023.2174919>
- Freire, P. (1970). *Pedagogy of the Oppressed*. New York: Continuum.
- Gade, S., & Blomqvist, C. (2015). From problem posing to posing problems via explicit mediation in grades 4 and 5. In F. M. Singer, N. Ellerton, & J. Cai (Eds.), *Mathematical problem posing: From research to effective practice* (pp. 3–34). Springer. <https://doi.org/10.1007/978-1-4614-6258-3>.
- Gagné, R. (1988). Some Reflections on Thinking Skills. *Instructional Science*, 17(4), 387-390
- Galbraith, P., & Haines, C. (1998). Disentangling the Nexus: Attitudes to Mathematics and Technology in a Computer Learning Environment. *Educational Studies in Mathematics*, 36(3), 275–290. <http://www.jstor.org/stable/3482708>
- Gall, Meredith D, Gall, Joyce P, & Borg, Walter R. (2003). *Educational Research, An Introduction (Seventh Ed)*. Boston: Allyn and Bacon.
- Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical Inquiry in a Text-Based Environment: Computer Conferencing in Higher Education. *The Internet and Higher Education*, 2, 87-105. [http://dx.doi.org/10.1016/S1096-7516\(00\)00016-6](http://dx.doi.org/10.1016/S1096-7516(00)00016-6)
- Gelerstein, D., Río, R. del, Nussbaum, M., Chiuminatto, P., & López, X. (2016). Designing and implementing a test for measuring critical thinking in primary school. *Thinking Skills and Creativity*, 20, 40–49. <https://doi.org/10.1016/j.tsc.2016.02.002>
- Gerlach, V.S. & Elly, D. P. (1980). *Teaching & media: A Sistematic approach. Second edition*. (Englewood Cliffs, New Jersey: Prentice Hall, Inc.
- Guetterman, T. C. (2019). Basics of statistics for primary care research. *Family Medicine and Community Health*, 7(2), 11–17. <https://doi.org/10.1136/fmch-2018-000067>
- Ghufron, S., Nafiah, Syahrudin, Kaswadi, & Mustofa. (2023). The Effect of STAD-Type Cooperative Learning Based on a Learning Tool on Critical Thinking Ability in Writing Materials. *International Journal of Instruction*, 16(1), 61–84. <https://doi.org/10.29333/iji.2023.1614a>

- Guilford, J. P. (1956). *Fundamental Statistics in Psychology and Education*. New York: Mc Graw-Hill Book Co. Inc
- Gul, R. B., Khan, S., Ahmed, A., Cassum, S., Saeed, T., Parpio, Y., Profetto-McGrath, J., & Schopflocher, D. (2014). Enhancing educators' skills for promoting critical thinking in their classroom discourses: A randomized control trial. *International Journal of Teaching and Learning in Higher Education*, 26, 37-54. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1042995.pdf>
- Gunhan, B. C. (2014). A case study on the investigation of reasoning skills in geometry *South African J. Educ.* 34 1–19
- Gürler, İ. (2015). Correlation between Self Confidence and Speaking Skill. *Curr Res Soc Sci*, 1(2), 14–19
- Haciomeroglu, E. S., Bu, L., Schoen, R. C, & Hohenwarter, M. (2009). Learning to Develop Mathematics Lessons with GeoGebra. *MSOR Connections*, 9(2), 24-26
- Haidara, Y. (2016). Psychological Factor Affecting English Speaking Performance for the English Learners in Indonesia. *Universal Journal of Educational Research*, 4(7), 1501– 1505. <https://doi.org/10.13189/ujer.2016.040701>
- Haghverdi, M. (2015). *A study of the causes of the difficulties with problem-posing in primary schools classrooms: Considering the teachers' viewpoint * Contextual and Conceptual Rewording View project A study of the causes of the difficulties with problem-posing in primary sc. May.* http://dx.doi.org/10.4236/jss.2014.*****
- Halpern, D. F. (2014). *Thought and knowledge: An introduction to critical thinking* (5th ed.). New York, NY: Psychology Press
- Halpern, D. F., & Dunn, D. S. (2021). Critical Thinking: A Model of Intelligence for Solving Real-World Problems. *Journal of Intelligence*, 9(2), 22. <https://doi.org/10.3390/jintelligence9020022>
- Hartmann, L. M., Krawitz, J., & Schukajlow, S. (2023). Posing and Solving Modelling Problems—Extending the Modelling Process from a Problem Posing Perspective. *Journal Fur Mathematik-Didaktik*, 44(2), 533–561. <https://doi.org/10.1007/s13138-023-00223-3>
- Hernández, A., Perdomo-Díaz, J., & Camacho-Machín, M. (2020). Mathematical understanding in problem solving with GeoGebra: a case study in initial teacher education. *International Journal of Mathematical Education in*

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

Hidayat, A. (2017). The Role of Self-Confidence in Improving Students' Critical Thinking Skills. *Journal of Educational Psychology*, 5(2), 112–125.

Hidayati, R., & Hidayah, N. (2020). The Differences of Students' Self-Confidence Level in Full Day Class and Regular Class of Elementary School. *JPI (Jurnal Pendidikan Indonesia)*, 9(4), 649. <https://doi.org/10.23887/jpi-undiksha.v9i4.22356>

Hidayaturrahmah, N. L., Su'ad, Setiadi, G., & Md. Yunus, A. S. (2022). Effect of Self-Confidence and Self-Regulation on Mathematics Learning Outcomes of Class VI Islamic Elementary Students in Batangan District Pati. *ICCCM Journal of Social Sciences and Humanities*, 1(6), 1–8.
<https://doi.org/10.53797/icccmjssh.v1i6.1.2022>

Hitchcock, David. (2020). *Critical Thinking*. In *The Stanford Encyclopedia of Philosophy (Fall 2020 Edition)*. Edited by Nouri Zalta Edward. Stanford: Stanford University

Hockenbury, D. H., & Hockenbury, S. E. (2011). *Discovering Psychology*. New York: Worth Publishers.

Hohenwarter, M., Jarvis, D., & Lavicza, Z. (2009). Linking Geometry, Algebra, and Mathematics Teachers: GeoGebra Software and the Establishment of the International GeoGebra Institute. *International Journal for Technology in Mathematics Education*: Research Information Ltd.

Hong, J., Hsiao, H., Chen, P., Lu, C., Tai, K., & Tsai, C. (2021). Computers & Education Critical attitude and ability associated with students' self-confidence and attitude toward "predict-observe-explain" online science inquiry learning. *Computers & Education*, 166(February), 104172.
<https://doi.org/10.1016/j.compedu.2021.104172>

Ito, H., Kasai, K., Nishiuchi, H., & Nakamuro, M. (2021). Does computer-aided instruction improve children's cognitive and noncognitive skills? *Asian Development Review*, 38(1), 98–118. https://doi.org/10.1162/adev_a_00159

Ishartono, N., Nurcahyo, A., Waluyo, M., Prayitno, H. J., & Hanifah, M. (2022). Integrating GeoGebra into The Flipped Learning Approach to Improve

Students' Self-Regulated Learning During The Covid-19 Pandemic. *Journal on Mathematics Education*, 13(1), 69–86. <https://doi.org/10.22342/jme.v13i1.pp69-86>

Iriarte, X., Aginaga, J., Ros, J., (2014). Teaching mechanism and machine theory with GeoGebra. In: García-Prada, J.C., Castejon, C. (Eds.), *New Trends in Educational Activity in the Field of Mechanism and Machine Theory*. Springer International Publishing, pp. 211–219. https://doi.org/10.1007/978-3-319-01836-2_23

Islamiyah, A. C., Prayitno, S., & Amrullah, A. (2018). Analisis Kesalahan Siswa SMP pada Penyelesaian Masalah Sistem Persamaan Linear Dua Variabel. *Jurnal Didaktik Matematika*, 5(1), 66–76. <https://doi.org/10.24815/jdm.v5i1.10035>

Issa, H. B., & Khataibeh, A. (2021). The Effect of Using Project Based Learning on Improving the Critical Thinking among Upper Basic Students from Teachers' Perspectives. *Pegem Egitim ve Ogretim Dergisi*, 11(2), 52–57. <https://doi.org/10.14527/pegegog.2021.00>

Jacobsen, D., Eggen, P. and Kauchack, D. (1989). *Methods for Teaching: A Skill Approach*. Columbus, Ohio: Merrill Publishing Company.

Jarolimek, J. & Foster, C. D. (1981). *Teaching and Learning in the Elementary School*. New York: Macmillan Publishing, Co., Inc.

Jazuli, N., Sudarmiati, S., & Wardana, W. (2023). Cognitive Development of Elementary School Children in Developing Critical Thinking Ability and Understanding Mathematical Concepts. *International Education Trend Issues*, 1(2), 58–65.

Jelatu, S., Sariyasa, & Ardana, I. M. (2018). Effect of GeoGebra-Aided REACT Strategy on Understanding of Geometry Concepts. *International Journal of Instruction*, 11(4), 325-336. <https://doi.org/10.12973/iji.2018.11421a>

Jones, K. (2002). *Issues in the Teaching and Learning of Geometry*. In: Linda Haggarty (Ed), *Aspects of Teaching Secondary Mathematics: perspectives on practice*. London: RoutledgeFalmer. Chapter 8, pp 121-139. ISBN: 0-415-26641-6

Juandi, D., Kusumah, Y. S., Tamur, M., Perbowo, K. S., & Wijaya, T. T. (2021). A meta-analysis of Geogebra software decade of assisted mathematics learning: what to learn and where to go? *Heliyon*, 7(5), e06953. <https://doi.org/10.1016/j.heliyon.2021.e06953>

- Kadir. (2018). *Statistika Terapan Konsep, Contoh dan Analisis Data dengan Program SPSS/Lisrel dalam Penelitian*. Depok: Rajawali Press
- Kasouf, C. J., Morrish, S. C., & Miles, M. P. (2015). The moderating role of explanatory style between experience and entrepreneurial self-efficacy. *International Entrepreneurship and Management Journal*, 11(1), 1–17. <https://doi.org/10.1007/s11365-013-0275-2>
- Karmila, W., Achmad, S., & Utami, U. (2023). High-Order Questions Improve Students' Critical Thinking Skills In Elementary Schools. *International Journal of Elementary Education*, 7(2), 196–203. <https://doi.org/10.23887/ijee.v7i2.61607>
- Kaur, A., & Rosli, R. (2021). Problem Posing in Mathematics Education Research: A Systematic Review. *International Journal of Academic Research in Progressive Education and Development*, 10(1), 438- 456. <https://doi.org/10.6007/IJARPED/v10-i1/8641>
- Kaye, T., & Ehren, M. (2021). Computer-assisted instruction tools: A model to guide use in low- and middle-income countries. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, Vol. 17, Issue 1, pp. 82-99. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1285495.pdf>
- Kaliyadan, F., & Kulkarni, V. (2019). Types of Variables, Descriptive Statistics, and Sample Size. *Indian dermatology online journal*, 10(1), 82–86. https://doi.org/10.4103/idoj.IDOJ_468_18
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of Behavioral Research* (4th Eds.). Orlando, FL: Harcourt College Publishers.
- Keşan, C., Kaya, D., & Güvercin, S. (2010). The Effect of Problem Posing Approach to the Gifted Student's Mathematical Abilities. *International Online Journal of Educational Sciences*, 2(3), 677–687. www.iojes.net
- Kilbane, C. R., & Milman, N. B. (2017). Examining the impact of the creation of digital portfolios by high school teachers and their students on teaching and learning. *International Journal of portfolio*, 7(1), 101-109 Retrieve from <https://files.eric.ed.gov/fulltext/EJ1142755.pdf>
- King, L. A. (2011). *the science of psychology: an appreciative view*. New York: McGraw-Hill
- Kiverstein, J., Rietveld, E., Slagter, H. A., & Denys, D. (2019). Obsessive compulsive disorder: A pathology of self-confidence? *Trends In Cognitive Sciences*, 23(5), 369– 372. <https://doi.org/10.1016/j.tics.2019.02.005>

- Klaassen, K. & Doorman, M. (2015). *Problem posing as providing students with content-specific motives*. In F. M. Singer, N. F. Ellerton & J. Cai (Eds.), *Mathematical problem posing: from research to effective practice* (pp. 215-240). New York: Springer
- Kleitman, S., & Stankov, L. (2007). Self-confidence and metacognitive processes. *Learning and Individual Differences*, 17, 161-173. <https://doi.org/10.1016/j.lindif.2007.03.004>
- Koichu, B. (2019). Problem posing in the context of teaching for advanced problem solving. *International Journal of Educational Research*, April, 0–1. <https://doi.org/10.1016/j.ijer.2019.05.001>
- Koichu, B., & Kontorovich, I. (2013). Dissecting success stories on mathematical problem posing: A case of the Billiard Task. *Educational Studies in Mathematics*, 83(1), 71–86. <https://doi.org/10.1007/s10649-012-9431-9>
- Kojima, K., Miwa, K., & Matsui, T. (2013). Supporting Mathematical Problem Posing With a System for Learning Generation Processes Through Examples. *International Journal of Artificial Intelligence in Education*, 22(4), 161–190. <https://doi.org/10.3233/JAI-130035>
- Kopparla, M., Bicer, A., Vela, K., Lee, Y., Bevan, D., Kwon, H., Caldwell, C., Capraro, M. M., Capraro, R. M., Kopparla, M., Bicer, A., Vela, K., Lee, Y., & Bevan, D. (2018). The effects of problem-posing intervention types on elementary students ' problem-solving. *Educational Studies*, 00(00), 1–18. <https://doi.org/10.1080/03055698.2018.1509785>
- Kopparla, M. and Capraro, M. M. (2018). Portrait of a Second-Grade Problem Poser. *European Journal of STEM Education*, 3(2), 03. <https://doi.org/10.20897/ejsteme/2684>
- Kovács, Z., Báró, E., Lócska, O., and Kónya, E. (2023). Incorporating Problem-Posing into Sixth-Grade Mathematics Classes. *Education Sciences*, 13(2). <https://doi.org/10.3390/educsci13020151>
- Ku, K. Y. L., & Ho, I. T. (2010). Metacognitive strategies that enhance critical thinking. *Metacognition and Learning*, 5(3), 251–267. <https://doi.org/10.1007/s11409-010-9060-6>
- Laila, N. (2022). *Effect of Self-Confidence and Self-Regulation on Mathematics Learning Outcomes of Class VI Islamic Elementary Students in Batangan District Pati*. 1(6), 1–8. <https://doi.org/10.53797/iccmjssh.v1i6.1.2022>
- Larsson, K. (2019). Using Essay Responses as a Basis for Teaching Critical Thinking – a Variation Theory Approach. *Scandinavian Journal of*

- Lauster, P. (2015). *Tes Kepribadian* (Terjemahan). Jakarta: PT Bumi Aksara
- Lavy, I. (2015). Problem-posing activities in a dynamic geometry environment: When and how. In F. M. Singer, N. F. Ellerton, & J. Cai (Eds.), *Mathematical problem posing: From research to effective practice* (pp. 393–410). Springer. <https://doi.org/10.1007/978-1-4614-6258-3>
- Le, M. H. (2023). The Application of Critical Thinking to Short Story Analysis: An Experiment on a New Teaching Process. *International Journal of TESOL & Education*, 3(2), 60–75. <https://doi.org/10.54855/ijte.23325>
- Leikin, R. (2015). Problem posing for and through investigations in a dynamic geometry environment. In F. M. Singer, N. F. Ellerton, & J. Cai (Eds.), *Mathematical problem posing: From research to effective practice* (pp. 373–391). Springer. <https://doi.org/10.1007/978-1-4614-6258-3>.
- Leikin, R., & Elgrably, H. (2020). Problem posing through investigations for the development and evaluation of proof-related skills and creativity skills of prospective high school mathematics teachers. *International Journal of Educational Research*, 102(July 2018), 1–13. <https://doi.org/10.1016/j.ijer.2019.04.002>
- Leonard, & Amanah. (2014). Pengaruh Adversity Quotient dan Kemampuan Berpikir Kritis terhadap Prestasi Belajar Matematika. *Perspektif Ilmu Pendidikan*, 28(1), 55–64.
- Lestari, I. D., Japar, M., & Sapriati, A. (2022). *The Effect of Problem Posing, CUPs and Critical Thinking on HOTS-Based Learning Achievement*. 14, 4371–4380. <https://doi.org/10.35445/alishlah.v14i3.737>
- Levene, H. (1960). In *Contributions to Probability and Statistics: Essays in Honor of Harold Hotelling*, I. Olkin et al. eds., Stanford University Press, pp. 278-292.
- Lewis, A., & Smith, D. (1993). Defining Higher Order Thinking. *Theory into Practice*, 32,131-137. <https://doi.org/10.1080/00405849309543588>
- Likert R. (1932) A technique for the measurement of attitudes. *Arch Psychology*. 22(140):55.
- Lipman, M. (2003). *Thinking in Education (2nd ed.)*. New York: Cambridge University Press. <https://doi.org/10.1017/CBO9780511840272>

- Liu, O. L., L. Frankel, & R. K. Crotts. (2014). Assessing Critical Thinking in Higher Education: Current State and Directions for Next-Generation Assessment. *ETS Research Report RR-14-10*. Educational Testing Service.
- Lombardi, L., Mednick, F. J., De Backer, F., & Lombaerts, K. (2022). Teachers' perceptions of critical thinking in primary education. *International Journal of Instruction*, 15(4), 1-16. <https://doi.org/10.29333/iji.2022.1541a>
- Lu, S., & Singh, M. (2017). Debating the capabilities of "Chinese students" for thinking critically in anglophone universities. *Education Sciences*, 7(1). <https://doi.org/10.3390/educsci7010022>
- Mabruroh, F., & Suhandi, A. (2017). Construction of critical-thinking skills test instrument related the concept on soundwave. *Journal of Physics: Conference Series*, 812, 1-6. <https://doi.org/10.1088/1742-6596/812/1/012056>
- Maclellan, E. (2014). How might teachers enable learner self-confidence? A review study. *Educational Review*, 66(1), 59–74. <https://doi.org/10.1080/00131911.2013.768601>
- Mafruhah, L., & Muchyidin, A. (2020). Analisis kesalahan siswa dalam menyelesaikan soal cerita matematika berdasarkan kriteria Watson. *Pythagoras: Jurnal Pendidikan Matematika*, 15(1), 24–35. <https://doi.org/10.21831/pg.v15i1.26534>
- Majerek, D. (2014). Application of Geogebra for Teaching Mathematics. *Advances in Science and Technology Research Journal*, 8(November 2014), 51–54. <https://doi.org/10.12913/22998624/567>
- Mann, E. (2006). Creativity: The Essence of Mathematics, *Journal for the Education of the Gifted*, 30, 2, 236-260.
- McElmeel, S. L. (2002). *Character education: A book guide for teachers, librarians, and parents*. Greenwood Village: Greenwood Publishing Group. Inc.
- McPeck, J. E. (1981). *Critical thinking and education*. New York: St. Martin's Press
- McPheat, S. (2010). *Personal confidence, and motivation*. London: MTD Training & Ventus Publishing APS.
- Meredith, K.S., & Steele, J.L., (2011). *Classrooms of Wonder and Wisdom: Reading, Writing, and Critical Thinking for the 21st Century*. Corwin A SAGE Company
- Mishra, P., Singh, U., Pandey, C. M., Mishra, P., & Pandey, G. (2019). Application of student's t-test, analysis of variance, and covariance. *Annals of Cardiac Anaesthesia*, 22(4), 407–411. <https://doi.org/10.4103/aca.ACA-94-19>

- Mishra, S., & Iyer, S. (2015). An exploration of problem posing-based activities as an assessment tool and as an instructional strategy. *Research and Practice in Technology Enhanced Learning*, 10(1). <https://doi.org/10.1007/s41039-015-0006-0>
- Mohajan, H. K. (2017). *Two Criteria for Good Measurements in Research: Validity and Reliability*. Annals of Spiru Haret University. Economic Series, 17(4), 59–82. <https://doi.org/10.26458/1746>
- Moser, C.A., & Kalton, G. (1971). *Survey Methods in Social Investigation (1st ed.)*. Routledge. <https://doi.org/10.4324/9781315241999>
- Mthethwa, M., Bayaga, A., Boss e, M.J., Williams, D., 2020. GeoGebra for learning and teaching: a parallel investigation. *S. Afr. J. Educ.* 40 (2), 1–12
- Mulyani, S., Hidayati, H., & Muttaqien, A. (2022). Critical Thinking Ability of Junior High School Students Who Have Self-Confidence. *Proceedings University of Muhammadiyah Yogyakarta Undergraduate Conference*, 2(1).
- Munna, A. S., & Kalam, A. (2021). *Teaching and learning process to enhance teaching effectiveness : a literature review*. 4(1), 1–4. <https://eric.ed.gov/?id=ED610428>
- Murni, V., Sariyasa, S., Ardana, I. M. (2017). GeoGebra assists discovery learning model for problem solving ability and attitude toward mathematics. *J. of Phys: Conf. Series*, 895, 1-6
- Nasution, W. N. (2020). Expository learning strategy: definition, goal, profit and procedure. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 25(5), 7-10
- NCTM - National Council of Teachers of Mathematics (2000). *Principles and standards for school mathematics*. Reston, VA: NCTM
- Ndahawali, H., Hariyani, S., & Farida, N. (2020). Analysis of Students' Critical Thinking Skills in Solving Mathematics Problems on Pythagoras. *Journal of Education and Learning Mathematics Research (JELMaR)*, 1(2), 1-7. <https://doi.org/10.37303/jelmar.v1i2.19>
- Newcombe NS. (2013). Cognitive development: changing views of cognitive change. *Wiley Interdisciplinary Reviews: Cognitive Science*. 4(5):479-91.
- Niss, M., & Højgaard, T. (2019) Mathematical competencies revisited. *Educational Studies in Mathematics*, <https://doi.org/10.1007/s10649-019-09903-9>
- Noto, M. S., Priatna, N., & Dahlan, J. A. (2019). Mathematical proof: The learning obstacles of pre-service mathematics teachers on transformation

geometry. *Journal on Mathematics Education*, 10(1), 117–125. <https://doi.org/10.22342/jme.10.1.5379.117-126>

Nugroho, P. B., Nusantara, T., As'ari, A. R., Sisworo, Hidayanto, E., & Susiswo (2018). Critical Thinking Disposition: Students Skeptic in Dealing with Ill-Logical Mathematics Problem. *International Journal of Instruction*, 11(3), 635-648. <https://doi.org/10.12973/iji.2018.11343a>

Nurkholifah, S., Toheri, & Winarso, W. (2018). Hubungan antara Self Confidence dengan Kemampuan Berpikir Kritis Siswa dalam Pembelajaran Matematika. The Correlations between Self Confidence and Student's Critical Thinking Skill in Learning Mathematics. *Jurnal Edumatica*, 08(April), 58–66.

Nurmanita, N., Siagian, P., & Sitompul, P. (2019). Development of Learning Device through Problem Based Learning Model Assisted by Geogebra to Improve Students' Critical Mathematical Thinking Ability. *Journal of Mathematical Sciences and Applications*, 7(1), 1–9. <https://doi.org/10.12691/jmsa-7-1-1>

Nurqodri, Z., & Setyaningsih, R. (2024). Students' Critical Thinking Ability in Solving Story Problems of Three-Variable Linear Equation System. *Journal of Medives : Journal of Mathematics Education IKIP Veteran Semarang*, 8(1), 1–17. <https://doi.org/10.31331/medivesveteran.v8i1.2925>

Nurwalidainismawati., Winarni, R., & Yamtinah, S. (2021). Analysis of Students' Critical Thinking Skills in Solving Math Essay Problems Using Think-Aloud Protocol Strategy in Elementary Schools. In *ICLIQE 2021: Proceeding of The 5th International Conference on Learning Innovation and Quality Education (ICLIQE '21)*, September 04, 2021, Surakarta, Indonesia. ACM, New York, NY, USA, 5 pages <https://doi.org/10.1145/3516875.3516889>

Öçal, M. F. (2017). The effect of GeoGebra on students' conceptual and procedural knowledge: The case of applications of derivative. *Higher Education Studies*, 7(2), 67–78. <https://doi.org/10.5539/hes.v7n2p67>

Olabiyi, O. S, Aiyelabowo, O. P. & Keshinro, O.T (2013). Relevance of computer assisted instruction (CAI) for effective skill development among technology education students in Nigeria. *Journal of Education and Practice*, vol. 4, no. 21, pp.80-89. Retrieved from <https://www.iiste.org/Journals/index.php/JEP/article/viewFile/8280/8384>

Onoshakpokaiye, E. O. (2021). Students' self-belief about their mathematics capability and achievement in mathematics. *Innovations*, 65(January), 288–298.

- Örnek, T., & Soyulu, Y. (2021). A model design to be used in teaching problem posing to develop problem-posing skills. *Thinking Skills and Creativity*, 41(July). <https://doi.org/10.1016/j.tsc.2021.100905>
- Özelçi, S. Y., & Çalışkan, G. (2019). What is critical thinking? A longitudinal study with teacher candidates. *International Journal of Evaluation and Research in Education*, 8(3), 495–509. <https://doi.org/10.11591/ijere.v8i3.20254>
- Öztürk, M., Akkan, Y., & Kaplan, A. (2019). *International Journal of Mathematical Education in Reading comprehension, Mathematics self-efficacy perception, and Mathematics attitude as correlates of students' non-routine Mathematics problem-solving skills in Turkey*. 5211. <https://doi.org/10.1080/0020739X.2019.1648893>
- Paengtip, P., & Dermrach, P. (2021). Development of Learning Skills by Using a Computer Assisted Instruction on Problem Solving with Equations to Enhance Critical Thinking Skills of the Fifth Grade Students. *Journal of Physics: Conference Series*, 1835(1). <https://doi.org/10.1088/1742-6596/1835/1/012072>
- Palmér, H., & van Bommel, J. (2020). Young Students Posing Problem-Solving Tasks: What Does Posing a Similar Task Imply to Students? *ZDM - Mathematics Education*, 52(4), 743–752. <https://doi.org/10.1007/s11858-020-01129-x>
- Papadopoulos, I., Patsiala, N., Baumanns, L., & Rott, B. (2022). Multiple Approaches to Problem Posing: Theoretical Considerations Regarding its Definition, Conceptualisation, and Implementation. *Center for Educational Policy Studies Journal*, 12(1), 13–34. <https://doi.org/10.26529/cepsj.878>
- Parsons, S., Croft, T., & Harrison, M. (2009). Does students' confidence in their ability in mathematics matter?. *Teaching Mathematics and its Applications*, 28(2), 53–68. <https://doi.org/10.1093/teamat/hrp010>
- Paul, R. (1993). *Critical Thinking: What every person needs to survive in a rapidly changing world*. Santa Rosa, CA: Foundation for Critical Thinking.
- Paul, R. (1995). *Critical thinking: How to prepare students for a rapidly changing world*. Santa Rosa, CA: Foundation for Critical Thinking
- Paul, R., Binker, A.J.A., Jensen, K., & Kreklau, H. (1990). *Critical Thinking Handbook: 4th- 6th Grades. A Guide for Re-modelling Lesson Plans in Language Arts, Social Studies, & Science*. Rohnert Park, CA: Foundation for Critical Thinking, Sonoma State University <https://eric.ed.gov/?id=ED325804>

- Paul, R., & Elder, L. (2006). *Critical Thinking: Learn the Tools the Best Thinkers Use*. Pearson Prentice Hall.
- Pečiuliauskienė, P. (2020). School Students' Self-confidence in Science and Intrinsic Motivation for Learning Science: Self-Concept and Self-Efficacy Approach. *Pedagogika*, 137(1), 138–155. <https://doi.org/10.15823/p.2020.137.8>
- Perkins, C. & E. Murphy. (2006). Identifying and measuring individual engagement in critical thinking in online discussions: An exploratory case study. *Educational Technology & Society*, 9 (1), 298-307
- Permanawati, F. I., Agoestanto, A., & Kurniasih, A. W. (2018). The students' critical thinking ability through problem posing learning model viewed from the students' curiosity. *Unnes Journal of Mathematics Education*, 7(3), 147–155. <https://doi.org/10.15294/ujme.v7i3.25025>
- Perry, M. (2005). *Confidence Boosters (Pendongkrak Kepercayaan Diri)*. Jakarta: Erlangga.
- Perry, P. (2011). Concept Analysis: Confidence/Self-confidence. In: *Nursing Forum*. Blackwell Publishing Inc, pp. 218-230 <https://doi.org/10.1111/j.1744-6198.2011.00230.x>
- Pettersson, C. (2018). Psychological well-being, improved self- confidence, and social capacity: bibliotherapy from a user perspective capacity : bibliotherapy from a user perspective. *Journal of Poetry Therapy*, 0(2), 1–11. <https://doi.org/10.1080/08893675.2018.1448955>
- Phan, H. P. (2010). Critical Thinking as a Self-Regulatory Process. *Psicothema*, 22(2), 284–292.
- Piaget, J. (1963). *The origins of intelligence in children*. New York: W.W. Norton & Company, Inc
- Pierce, R., & Stacey, K. (2004). A framework for monitoring progress and planning teaching towards the effective use of computer algebra systems. *International Journal of Computers for Mathematical Learning*, 9, 59–93. <https://doi.org/10.1023/B:IJCO.0000038246.98119.14>
- Potts, Bonnie. (2019). Strategies for Teaching Critical Thinking. *Practical Assessment, Research, and Evaluation*: Vol. 4, Article 3. DOI: <https://doi.org/10.7275/hdhj-fc81>
- Prayekti. 2016. Effect of Experiment Learning Strategy versus Expository and Cognitive Style for Pysical Learning Result for Senior High School Student

at Class XI of Senior High School. *Journal of Education and Practice* vol. 7, no.12. Retrieved from <https://www.iiste.org/Journals/index.php/JEP/article/view/29871>

Purwati, P., Sumardi, S., Minsih, M., Prastiwi, Y., & Rahmawati, L. E. (2022). Analysis of Students Critical Thinking Skills of 5th Grade in Mathematics Learning. *JTAM (Jurnal Teori Dan Aplikasi Matematika)*, 6(3), 799. <https://doi.org/10.31764/jtam.v6i3.8710>

Rabindran., & Madanagopal, D. (2020). Piaget's Theory and Stages of Cognitive Development- An Overview. *Scholars Journal of Applied Medical Sciences*, 8(9), 2152–2157. <https://doi.org/10.36347/sjams.2020.v08i09.034>

Ramdani, A., Jufri, A. W., Gunawan, Fahrurrozi, M., & Yustiqvar, M. (2021). Analysis of students' critical thinking skills in terms of gender using science teaching materials based on the 5e learning cycle integrated with local wisdom. *Jurnal Pendidikan IPA Indonesia*, 10(2), 187–199. <https://doi.org/10.15294/jpii.v10i2.29956>

Reyes, L. H. (1984). Affective variables and mathematics education. *The Elementary School Journal*, 84(5), 558–581. <https://doi.org/10.1086/461384>

Reddy, Mohan. (2014). A Study of Self Confidence in Relation to Achievement Motivation of D.ed Students Education. *Global Journal for Research Analysis*. 8,56–58.

Ren, X., Tong, Y., Peng, P., & Wang, T. (2020). Critical thinking predicts academic performance beyond general cognitive ability: Evidence from adults and children. *Intelligence*, 82(March), 101487. <https://doi.org/10.1016/j.intell.2020.101487>

Richardson, J., Iezzi, A., Khan, M. A., Chen, G., Maxwell, A., & Hons, B. (2016). *Measuring the Sensitivity and Construct Validity of 6 Utility Instruments in 7 Disease Areas*. 1–13. <https://doi.org/10.1177/0272989X15613522>

Rincon, L. F. (2009). *Designing dynamic and interactive applications using Geogebra Software in the 6–12 mathematics curriculum*. Kean University. Retrieved from <https://www.learntechlib.org/p/117490/>

Robinson, S. P., & Kay, K. (2010). 21st century knowledge and skills in educator preparation. *United States of America: Partnership for 21st Century Skills*. Retrieved from <https://files.eric.ed.gov/fulltext/ED519336.pdf>

Rosidin, U., Nina, K., Neni, H. (2019). Can Argument-Driven Inquiry Models Have Impact On Critical Thinking Skills for Students with Different

Personality Types?. *Cakrawala Pendidikan*,. 38(3), 511–526.
<https://doi.org/10.21831/cp.v38i3.24725>

Rosita, D. (2017). Enhancing Critical Thinking Through Self-Confidence Development. *Journal of Thinking Skills and Creativity*, 8(1), 32–45.

Rosli, R., Capraro, M. M., & Capraro, R. M. (2014). The effects of problem posing on student mathematical learning: A meta-analysis. *International Education Studies*, 7(13), 227–241. <https://doi.org/10.5539/ies.v7n13p227>

Rosyana, T., Afrilianto, M., & Senjayawati, E. (2018). The strategy of formulate-share-listencreate to improve vocational high school students' mathematical problem posing ability and mathematical disposition on probability concept. *Infinity: Journal of Mathematics Education*, 7(1), 1–6.
<https://doi.org/10.22460/infinity.v7i1.p1-6>

Ruseffendi, E.T. (2005). *Statistik Dasar Untuk Penelitian Pendidikan*. Bandung: IKIP Bandung Press.

Rustam, R., & Priyanto, P. (2022). Critical thinking assessment in the teaching of writing Indonesian scientific texts in high school. *Jurnal Penelitian dan Evaluasi Pendidikan*, 26(1), 12-25. <https://doi.org/10.21831/pep.v26i1.36241>

Sagal, S. (2003). *Konsep dan Makna Pembelajaran*. Bandung: Alfabeta.

Salkind, N. (2018). *Exploiring research (9th ed.)*. Pearson Education.

Santrock, J. W. (2011). *Child development*. New York: McGraw-Hill.

Şar, A. H., Avcu, R., & Işıklar, A. (2010). Analyzing undergraduate students' self-confidence levels in terms of some variables. *Procedia - Social and Behavioral Sciences*, 5, 1205–1209.
<https://doi.org/10.1016/j.sbspro.2010.07.262>

Sarwanto, Fajari, S. L. E. W., & Chumdari. (2021). Critical Thinking Skills and Their Impacts on Elementary School Students. *Malaysian Journal of Learning and Instruction*, 18(2), 161–187.
<https://doi.org/10.32890/mjli2021.18.2.6>

Sasson, I., Yehuda, I., & Malkinson, N. (2018). Fostering the skills of critical thinking and question-posing in a project-based learning environment. *Thinking Skills and Creativity*. <https://doi.org/10.1016/j.tsc.2018.08.001>

Sawyer, S. F. (2009). Analysis of Variance: The Fundamental Concepts. *Journal of Manual & Manipulative Therapy*, 17(2), 27E-38E.
<https://doi.org/10.1179/jmt.2009.17.2.27e>

- Setiana, D. S., Purwoko, R. Y., & Sugiman. (2021). The application of mathematics learning model to stimulate mathematical critical thinking skills of senior high school students. *European Journal of Educational Research*, 10(1), 509–523. <https://doi.org/10.12973/EU-JER.10.1.509>
- Setiawan, A., Prasetyo, K., & Yani, M. T. (2018). *The influence of the “Problem-Posing” learning model to activities and learning outcomes in elementary school*. <https://doi.org/10.2991/icei18.2018.10>
- Setiawan, A., Rochmad, & Nuriana Rachmani Dewi. (2021). Hubungan Kemampuan Berpikir Kritis dengan Self Confidence Siswa Kelas IX Materi Bangun Ruang Sisi Lengkung. *Jurnal Pendidikan Dan Kebudayaan Missio*, 13(2), 203–213.
- Shanti, W. N., Sholihah, D. A., & Martyanti, A. (2017). Meningkatkan Kemampuan Berpikir Kritis Melalui Problem Posing. *LITERASI (Jurnal Ilmu Pendidikan)*, 8(1), 48. [https://doi.org/10.21927/literasi.2017.8\(1\).48-58](https://doi.org/10.21927/literasi.2017.8(1).48-58)
- Sheldrake, R., Mujtaba, T., & Reiss, M. J. (2022). Implications of under-confidence and over-confidence in mathematics at secondary school. *International Journal of Educational Research*, 116(June), 102085. <https://doi.org/10.1016/j.ijer.2022.102085>
- Shaw, A., Liu, O. L., Gu, L., Kardonova, E., Chirikov, I., Li, G., Hu, S., Yu, N., Ma, L., Guo, F., Su, Q., Shi, J., Loyalka, P., Shaw, A., Liu, O. L., Gu, L., Kardonova, E., & Chirikov, I. (2019). *Studies in Higher Education Thinking critically about critical thinking: validating the Russian HEIghten® critical thinking assessment Thinking critically about critical thinking: validating the Russian*. 5079. <https://doi.org/10.1080/03075079.2019.1672640>
- Silva, H., Lopes, J., Morais, E., & Dominguez, C. (2023). Fostering critical and creative thinking through the cooperative learning jigsaw and group. *International Journal of Instruction*, 16(3), 261-282. <https://doi.org/10.29333/iji.2023.16315a>
- Silver, E. A. (1994). *On mathematical problem-posing. For the Learning of Mathematics*, 14(1), 19-28.
- Silver, E. A., & Cai, J. (1996). An analysis of arithmetic problem-posing by middle school. *Journal For Research in Mathematics Education*, 27, 521-539
- Sireci, S.G. (1998) The Construct of Content Validity. *Social Indicators Research* 45, 83–117 <https://doi.org/10.1023/A:1006985528729>

- Smith, R., & Johnson, M. (2018). Self-Confidence and Critical Thinking Skills Among High School Students. *Journal of Adolescent Education*, 25(2), 178–193.
- Sofiana. (2008). *Peningkatan Kepercayaan Diri Pada Siswa Dalam Pembelajaran Matematika Melalui Pendekatan Visual Auditorial Kinestetik*.
- Solikhin, M., & Fauziah, A. N. M. (2021). Analisis kemampuan berpikir kritis siswa SMP pada pelajaran IPA saat pembelajaran daring selama pandemi Covid-19. *Pensa E-Jurnal: Pendidikan Sains*, 9(2), 188-192. <https://ejournal.unesa.ac.id/index.php/pensa/article/view/38060>
- Solomon, M., Bamossy, G. J., Askegaard, S., & Hogg, M. K. (2006). *Consumer Behaviour: A European Perspective (3rd Edition)*. Prentice Hall.
- Srivastava, S. K. (2013). To study the effect of academic achievement on the level of self confidence. *Journal of Psychosocial Research*, 8(1), 41–51.
- Stajkovic, A. D. (2006). Development of a core confidence-higher order construct. *Journal of Applied Psychology*, 91(6), 1208–1224. <https://doi.org/10.1037/0021-9010.91.6.1208>
- Stols, G., & Kriek, J. (2011). Why don't all maths teachers use dynamic geometry software in their classrooms? *Australasian Journal of Educational Technology*, 27(1), 137-151 <https://doi.org/10.14742/ajet.988>
- Stoyanova, E. N. (1997). *Extending and exploring students' problem solving via problem posing*. Edith Cowan University. Retrieved from <https://ro.ecu.edu.au/theses/885>
- Stoyanova, E., & Ellerton, N. F. (1996). A framework for research into students' problem posing in school mathematics. In P. C. Clarkson (Ed.). *Technology in mathematics education* (pp. 518–525). Melbourne, Australia: Mathematics Education Research Group of Australasia
- Subekti, M. A. S., & Pitriyana, S. (2024). Analysis of Students' Critical Thinking Abilities in Solving Problems Social Arithmetics Junior High School. *Jurnal Pendidikan Matematika (JPM)*, 10(1), 10–21. <https://doi.org/10.33474/jpm.v10i1.20497>
- Sudiarta, I. G. (2007). Pengembangan Pembelajaran Berpendekatan Tematik Berorientasi Pemecahan Masalah Matematika Terbuka untuk Mengembangkan Kompetensi Berpikir Divergen, Kritis dan Kreatif. *Jurnal Pendidikan dan Kebudayaan*, 1004- 1024.
- Sugiyono. (2021). *Statistika untuk Penelitian (31st ed.)*. Bandung: CV. ALFABETA

- Šuljić, Š. (2010). GeoGebra-alat za e-učenje. *U: Matematika i e-učenje, Dubrovnik*, (28-31). Varaždin: TIVA Tiskara Varaždin.
- Sung, H. Y., Hwang, G. J., & Chen, S. F. (2019). Effects of embedding a problem-posing-based learning guiding strategy into interactive e-books on students' learning performance and higher order thinking tendency. *Interactive Learning Environments*, 27(3), 389–401. <https://doi.org/10.1080/10494820.2018.1474235>
- Supardi. (2017). *Statistik Penelitian Pendidikan*. Rajawali Pers.
- Suratih, S., & Pujiastuti, H. (2020). Analisis kesalahan siswa dalam menyelesaikan soal cerita program linear berdasarkan Newman's error analysis. *Pythagoras: Jurnal Pendidikan Matematika*, 15(2), 111–123. <https://doi.org/10.21831/pg.v15i2.30990>
- Suresman, E., Febrianti, F. A., & Dallyono, R. (2023). Implementation of i-Spring Suite to improve students' learning for critical thinking skills in natural science. *Cakrawala Pendidikan*, 42(2), 433–446. <https://doi.org/10.21831/cp.v42i2.53646>
- Surya, E., & Putri, F. A. (2017). Improving mathematical problem-solving ability and self-confidence of high school students through contextual learning model. *Journal on Mathematics Education*, 8(1), 85–94. <https://doi.org/10.22342/jme.8.1.3324.85-94>
- Suryanti, Widodo, W., & Budijastuti, W. (2020). Guided discovery problem-posing: An attempt to improve science process skills in elementary school. *International Journal of Instruction*, 13(3), 75–88. <https://doi.org/10.29333/iji.2020.1336a>
- Sutama, S., Fuadi, D., Narimo, S., Hafida, S. H. N., Novitasari, M., Anif, S., Prayitno, H. J., Sunanih, S., & Adnan, M. (2022). Collaborative mathematics learning management: Critical thinking skills in problem solving. *International Journal of Evaluation and Research in Education*, 11(3), 1015–1027. <https://doi.org/10.11591/ijere.v11i3.22193>
- Swaak, J., de Jong, T., & van Joolingen, W. R. (2004). The effects of discovery learning and expository instruction on the acquisition of definitional and intuitive knowledge. *Journal of Computer Assisted Learning*, 20(4), 225–234. <https://doi.org/10.1111/j.1365-2729.2004.00092.x>
- Syafitri, Q., Mujib, M., Netriwati, N., Anwar, C., & Wawan, W. (2018). The Mathematics Learning Media Uses Geogebra on the Basic Material of Linear Equations. *Al-Jabar: Jurnal Pendidikan Matematika*, 9(1), 9. <https://doi.org/10.24042/ajpm.v9i1.2160>

- Taherdoost, H. (2016). Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research. *International Journal of Academic Research in Management (IJARM)*, 5, ffhal-02546799f
- Tatar, E., & Zengin, Y. (2016). Conceptual understanding of definite integral with GeoGebra. *Computers in the Schools*, 33(2), 120–132. <https://doi.org/10.1080/07380569.2016.1177480>
- Tsang, S., Royse, C. F., & Terkawi, A. S. (2017). Guidelines for developing, translating, and validating a questionnaire in perioperative and pain medicine. *Saudi Journal of Anaesthesia*, 11(5), S80–S89. https://doi.org/10.4103/sja.SJA_203_17
- Tomaš, Suzana., Josipa Jurić., & Mirna Paradžik. (2019). Geogebra Appliance in the Teaching of Mathematics in Lower Grades of Elementary School. In *Metodički obzori/Methodological Horizons: Vol. 13(2018)1* (pp. 101–120). <https://doi.org/10.32728/mo.13.1.2018.5>
- Tomić, M. (2013), Matematički softver u nastavi matematike u hrvatskim školama – pregled GeoGebre i Geometer's Sketchpada. *Croatian Journal of Education : Hrvatski časopis za odgoj i obrazovanje*, 15 (1): 197-208.
- Turner, D. P., & Houle, T. T. (2019). Conducting and Reporting Descriptive Statistics. *Headache*, 59(3), 300–305. <https://doi.org/10.1111/head.13489>
- Utami, B., Saputro, S., Ashadi, A., Masykuri, M., Probosari, R. M., & Sutanto, A. (2018). Students' critical thinking skills profile: constructing best strategy in teaching chemistry. *IJPTTE : International Journal of Pedagogy and Teacher Education*, 2(January), 63. <https://doi.org/10.20961/ijpte.v2i0.19768>
- Van der Veer, R. (2020). Vygotsky's Theory. *The Encyclopedia of Child and Adolescent Development*, 1–7. <https://doi.org/10.1002/9781119171492.wecad101>
- Van Laar, E., van Deursen, A. J. A. M., van Dijk, J. A. G. M., & de Haan, J. (2019). Determinants of 21st-century digital skills: A large-scale survey among working professionals. *Computers in Human Behavior*, 100, 93–104. <https://doi.org/10.1016/j.chb.2019.06.017>
- Velayati, N., Muslem, A., Fitriani, S. S., & Samad, I. A. (2017). An Exploration of Students' Difficulties in Using Critical Thinking Skills in Reading. *Al-Ta Lim Journal*, 24(3), 195–206. <https://doi.org/10.15548/jt.v24i3.298>
- Vetter, T. R. (2017). Descriptive Statistics: Reporting the Answers to the 5 Basic Questions of Who, What, Why, When, Where, and a Sixth, so What? *Anesthesia and Analgesia*, 125(5), 1797–1802. <https://doi.org/10.1213/ANE.0000000000002471>

- Watson, G. & Glaser, E. M. (2008). *Watson-Glaser Critical Thinking Appraisal*. USA: Pearson Education, Inc.
- Weinhandl, R., Lavicza, Z., Hohenwarter, M. & Schallert, S. (2020). Enhancing flipped mathematics education by utilising GeoGebra. *International Journal of Education in Mathematics, Science and Technology (IJEMST)*, 8(1), 1-15. <https://doi.org/10.46328/ijemst.v8i1.832>
- Wertsch, J. (1985). *Vygotsky and the social formation of mind*. UK: Harvard University Press.
- Willis, Sofyan S. (2011). *Konseling Individual, Teori dan Praktek*. Bandung: Alfabeta
- Woolfolk, A. (2008). *Educational psychology. Active learning edition (2nd ed.)*. Boston, MA: Allyn & Bacon.
- Worthen, B.R. (1968) Discovery and expository tasks presentation in elementary mathematics. *Journal of Educational Psychology*, Monograph Supplement, 59, No. 1 Part 2.
- Wilde, N., & Hsu, A. (2019). The Influence of General Self-Efficacy on the Interpretation of Vicarious Experience Information Within Online Learning. *International Journal of Educational Technology in Higher Education*, 16(1), 1–20. <https://doi.org/10.1186/s41239-019-0158-x>
- Wildan, M. A., Irawati, A., & Arista, E. (2014). The effect of self confidence, self-esteem, and self concept on the student's job readiness in the universities through Gerbang Kertausila Region, Indonesia. *Australian Journal of Basic and Applied Sciences*, 8(23), 196-199.
- Willis, S. S. (2011). *Konseling Individual, Teori dan Praktek*. Bandung: Alfabeta
- Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education. *Entrepreneurship Theory & Practice*, 31, 387–406. <https://doi.org/10.1111/j.1540-6520.2007.00179.x>
- Whitaker, S. (2020). *Cognitive Development Steven Whitaker*. <https://doi.org/10.13140/RG.2.2.32151.11688/1>
- Womack, S. T. (1989). Modes of Instruction: Expository, Demonstration, Inquiry, Individualized. *The Clearing House*, 62(5), 205–210. <https://www.jstor.org/stable/30196914>

- Xie, C., Cheung, A. C. K., Lau, W. W. F., & Slavin, R. E. (2020). The Effects of Computer-Assisted Instruction on Mathematics Achievement in Mainland China: A Meta-Analysis. *International Journal of Educational Research*, 102(March). <https://doi.org/10.1016/j.ijer.2020.101565>
- Xu, B., Cai, J., Liu, Q., & Hwang, S. (2019). Teachers' predictions of students' mathematical thinking related to problem posing. *International Journal of Educational Research*. <https://doi.org/10.1016/j.ijer.2019.04.005>
- Yaniawati, P., Kariadinata, R., Sari, N. M., Pramiarsih, E. E., & Mariani, M. (2020). Integration of e-Learning for Mathematics on Resource-Based Learning: Increasing Mathematical Creative Thinking and Self-Confidence. *International Journal of Emerging Technologies in Learning (IJET)*, 15(06), pp. 60–78. <https://doi.org/10.3991/ijet.v15i06.11915>
- Yates, P. (2002). The Role of Self-Confidence in Learning Mathematics: A Case Study. *Journal of Mathematics Education*, 4(2), 75–86.
- Yazidi, R. EL. (2023). Strategies for Promoting Critical Thinking in the Classroom. *International Journal of English Literature and Social Sciences*, 8(2), 026–040. <https://doi.org/10.22161/ijels.82.5>
- Ye, X. D., Chang, Y. H., & Lai, C. L. (2019). An interactive problem-posing guiding approach to bridging and facilitating pre- and in-class learning for flipped classrooms. *Interactive Learning Environments*, 27(8), 1075–1092. <https://doi.org/10.1080/10494820.2018.1495651>
- Yulita & Ain, S., Q. (2021). Analysis of Students Learning Difficulties in Learning Mathematics at Elementary Schools. *Al-Ishlah: Jurnal Pendidikan*, 13(2), 893-899. <https://doi.org/10.35445/alishlah.v13i2.745>
- Yuspitasari, J., Rahmawati, R., & Bancong, H. (2023). The Effectiveness of Using Discovery Learning-Based Student Worksheets to Improve Students' Critical Thinking Skills on Heat Transfer Topic. *International Journal of Social Science and Human Research*, 06(07), 4263–4269. <https://doi.org/10.47191/ijsshr/v6-i7-51>
- Zakiah, L., & Lestari, I., (2019). *Berpikir Kritis dalam Konteks Pembelajaran*. Bogor: Erzatama Karya Abadi
- Zhang, H., & Cai, J. (2021). Teaching mathematics through problem posing: insights from an analysis of teaching cases. *ZDM – Mathematics Education*, 2011. <https://doi.org/10.1007/s11858-021-01260-3>
- Zhang, L., Cai, J., Song, N., Zhang, H., Chen, T., Zhang, Z., & Guo, F. (2022). Mathematical problem posing of elementary school students: The impact of

task format and its relationship to problem solving. *ZDM-Mathematics Education*.

Zulnaldi, H., & Zamri, S. N. A. S. (2017). The Effectiveness of the GeoGebra Software: The Intermediary Role of Procedural Knowledge On Students' Conceptual Knowledge and Their Achievement in Mathematics. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(6), 2155-2180. <https://doi.org/10.12973/eurasia.2017.01219a>

Zuya., H. (2017). the Benefits of Problem Posing in the Learning of Mathematics: a Systematic Review. *International Journal of Advanced Research*, 5(3), 853–860. <https://doi.org/10.21474/ijar01/3581>

