

DAFTAR PUSTAKA

- Akanmu, M. A., & Fajemidagba, M. O. 2013. Guided-discovery Learning Strategy and Senior School Students Performance in Mathematics in Ejiabo, Nigeria. *Journal of Education and Practice*, 4(12), 83 – 90
- Alfieri, L. Brooks, P. J., Aldrich, N. J., & Tenenbaum, H. R. 2011. Does Discovery-Based Instruction Enhance Learning?. *Journal of Educational Psychology; American Psychological Association*, 103(1), 1 – 18, <http://dx.doi.org/10.1037/a0021017.supp>
- Arikunto, S. 2010. *Prosedur Penelitian: Suatu Pendekatan Praktik*. Yogyakarta: PT. Rineka Cipta
- Asri, E. Y., & Noer, S. H. 2015. Guided Discovery Learning dalam Pembelajaran Matematika. *Seminar Nasional Matematika dan Pendidikan Matematika UNY 2015*, 891 – 896
- Ayotola, A., & Adedeji. 2009. The relationship between mathematics self-efficacy and achievement in mathematics. *World Conference Education Science; Procedia Social and Behavioral Sciences*, 1(2009), 953–957, <https://doi.org/10.1016/j.sbspro.2009.01.169>
- Azwar, Surya, E., & Saragih, S. 2017. Development of Learning Devices Based on Contextual Teaching and Learning Model Based on the Context of Aceh Cultural to Improve Mathematical Representation and Self-efficacy Ability of SMAN 1 Peureulak Students. *Journal of Education and Practice*, 8(27), 186 –195
- Bahar, A., & Maker, C. J. 2015. Cognitive Backgrounds of Problem Solving: A Comparison of Open-ended vs. Closed Mathematics Problems. *Eurasia Journal of Mathematics, Science & Technology Education*, 11(6), 1531 – 1546
- Balim, A. G., 2009. The Effects of Discovery Learning on Students' Success and Inquiry Learning Skills. *Eurasian Journal of Educational Research*, 35, 1 – 20
- Balamurugan. 2015. Ethnomathematics; An Approach for Learning Mathematics from Multicultural Perspectives. *International Journal of Modern Research And Reviews*, 3(6), 716 – 720
- Bandura, A. 1994. Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of Human Behavior*, 4, 71 – 81
- Bishop, A. J. 1988. Mathematics Education in Its Cultural Context. *Educational Studies in Mathematics*, 19(1988), 179 – 191

- Bruner, J. S. 1961. The Act of Discovery. *Harvard Educational Review*, 3(1), 21–32
- Bonne, L., & Lawes, E. 2016. Assessing Students' Maths Self-Efficacy and Achievement. *Assessment News*, 2, 60 – 63, <http://dx.doi.org/10.18296/set.0048>
- Chusnul C., Mardiyana, & Dewi Retno S. 2017. Errors Analysis of Problem Solving Using The Newman Stage After Applying Cooperative Learning of TTW Type. *AIP Conference Proceedings*, 1913(2017), 020028-1-020028-7 <http://dx.doi.org/10.1063/1.5016662>
- D'Ambrosio, U. 2006. The Program Ethnomathematics and the Challenges of Globalization. *Circumscribere; International Journal for The History of Science*, 1, 74 – 82
- D'Ambrosio, U. 2016. *An Overview of the History of Ethnomathematics*. (Chapter). http://dx.doi.org/10.1007/978-3-319-30120-4_2. Dalam Kaiser, G. (Ed.), *Current and Future Perspectives of Ethnomathematics as a Program* (hlm. 5 – 10). Hamburg: Springer 12
- Dewey, J. 1986. Experience and Education. *The Educational Forum*, 50(3), 241 - 252, <https://doi.org/10.1080/00131728609335764>
- D'Entremont, Y. 2015. Linking Mathematics, Culture and Community. *Procedia – Social and Behavioral Sciences*, 174(2015), 2818 – 2824, <https://dxdoi/10.1016/j.sbspro.2015.01.973>
- Ernest, P. 2010. Why Teach Mathematics?. *Professional Educator*, 9(2), 44 – 47
- Evans, S., & Swan, M. 2014. Developing Students' Strategies for Problem Solving. *Educational Designer*, 2(7), 1 – 31
- Hasratuddin. 2012. Meningkatkan Kecerdasan Emosional Melalui Pembelajaran Matematika Realistik. *Jurnal Pendidikan dan Pembelajaran*, 19(1), 65–76
- Herdiana, Y., Wahyudin, & Sispiyati, R. 2017. Effectiveness of Discovery Learning Model on Mathematical Problem Solving. *AIP Conference Proceedings* 1868, 050028(2017), 2 – 8, <https://doi.org/10.1063/1.4995155>
- Herman. 2012. Pengembangan Perangkat Pembelajaran Model Pengajaran Langsung untuk Mengajarkan Materi Keseimbangan Benda Tegar. *Jurnal Sains dan Pendidikan Fisika*, 8(1), 1 – 11

- Hutagalung, R. 2017. Peningkatan Kemampuan Pemahaman Konsep Matematis Siswa Melalui Pembelajaran Guided Discovery Berbasis Budaya Toba di SMP Negeri 1 Tukka. *Journal of Mathematics Education and Science*. 2(2), 70 – 77
- In'am, A., & Hajar, S. 2017. Learning Geometry through Discovery Learning Using a Scientific Approach. *International Journal of Instruction*, 10(1), 55 – 70, <https://doi.org/10.12973/iji.2017.1014a>
- Kaiser, G. 2002. Educational Philosophies and Their Influence on Mathematics Education – An Ethnographic Study in English and German Mathematics Classrooms. *ZDM*, 34(6), 241 – 257
- Kirschner, P. A., Sweller, J., & Clark, R. E. 2010. Why Minimal Guidance During Instruction Does Not Work: An Analysis of the Failure of Constructivist, Discovery, Problem-Based, Experiential, and Inquiry-Based Teaching. *Educational Psychologist*, 41(2), 75 – 86, http://dx.doi.org/10.1207/s15326985ep4102_1
- Kuhn, D. 2007. Is Direct Instruction an Answer to the Right Question?. *Educational Psychologist*, 42(2), 109 – 113
- Kurniati, Dewi, I., & Hasratuddin. 2018. The Development of Student Worksheet Based on PISA to Improve Problem Solving Ability. *American Journal of Educational Research*, 6(11), 1581-1585. [10.12691/education-6-11-18](https://doi.org/10.12691/education-6-11-18)
- Kuzle, A. 2013. Patterns of Metacognitive Behavior During Mathematics Problem-Solving in a Dynamic Geometry Environment. *International Electronic Journal of Mathematics Education – IΣJMΣ*, 8(1), 20 – 40
- Laine, A., Näveri, L., Pehkonen, E., Ahtee, M., & Hannula, S. M. 2012. Third-graders' Problem Solving Performance and Teachers' Actions. Dalam Bergqvist, T (Ed) Learning Problem Solving and Learning Through Problem Solving. *Proceedings from the 13th ProMath conference, September 2011*, 69 – 81
- Lanvin, B. & Evans, P. (Eds). 2016. *The Global Talent Competitiveness Index 2017 Talent and Technology*. France: INSEAD
- Liu, X., & Koirala, H. 2009. The Effect of Mathematics Self-Efficacy on Mathematics Achievement of High School Students. *NERA Conference Proceedings 2009, No.30* (http://digitalcommons.uconn.edu/nera_2009/30, diakses 3 Oktober 2017)

- Lopez, L. 2008. Helping At-risk Students Solve Mathematical Word Problems Through The Use Of Direct Instruction and Problem Solving Strategies. *Electronic Theses and Dissertations*, (<http://stars.library.ucf.edu/etd/3668>, diakses 2 Oktober 2018)
- Mahmoud, A. 2014. The Effect of Using Discovery Learning Strategy in Teaching Grammatical Rules to First Year General Secondary Student on Developing Their Achievement and Metacognitive Skills. *International Journal of Innovation and Scientific Research*, 5(2), 146 – 153
- Mayer, R. E. 2004. Should There Be a Three-Strikes Rule Against Pure Discovery Learning? The Case for Guided Methods of Instruction. *American Psychologist*, 59(1), 14 – 19, <http://dx.doi.org/10.1037/0003-066X.59.1.14>
- Miettinen, R. 2000. The Concept of Experiential Learning and John Dewey's Theory of Reflective Thought and Action. *International Journal of Lifelong Education*, 19(1), 54 – 72, <https://doi.org/10.1080/026013700293458>
- Motlagh, S. E., Amrai, K., Yazdani, M. J., Abderahim, H. A., & Souri, H. 2011. The Relationship Between Self-efficacy and Academic achievement in high school students. *Procedia Social and Behavioral Sciences*, 15, 765–768, <https://doi.org/10.1016/j.sbspro.2011.03.180>
- Nasution, T. K., & Sinaga, B. 2017. Development of Student Worksheet Geometry Based Metacognitive Strategy Through Creative Thinking Ability. *IOSR Journal of Research & Method in Education (IOSR-JRME)*, 7(4), 10 – 18, <https://doi.org/10.9790/7388-0704041018>
- Nesari, A. J., & Heidari, M. 2014. The Important Role of Lesson Plan on Educational Achievement of Iranian EFL Teachers' Attitudes, *International Journal of Foreign Language Teaching & Research*, 3(5), 25 – 31
- Newman, M. A. 1977. An analysis of Sixth-Grade Pupils' Errors on Written Mathematical Tasks. *Victorian Institute for Educational Research Bulletin*, 39, 31 – 43
- Nidya, Wulandari, F., & Jailani. 2015. Indonesian Students' Mathematics Problem Solving Skill in PISA And TIMSS. *Proceeding of International Conference On Research, Implementation And Education Of Mathematics and Sciences 2015 (ICRIEMS 2015)*, Yogyakarta State University, 17-19 May 2015
- Nieveen, N., & Folmer, E. 2013. *Formative Evaluation in Educational Design Research*. Dalam Plomp, T. & Nieveen, N. 2013. *Educational Design Research*. Netherland: SLO

- Olayinka, A. R. B. 2016. Effects of Instructional Materials on Secondary Schools Students' Academic Achievement in Social Studies in Ekiti State, Nigeria. *World Journal of Education*, 6(1), 32 – 39, <http://dx.doi.org/10.5430/wje.v6n1p32>
- Uworwabayeho, A. 2009. Teachers' Innovative Change within Countrywide Reform: A Case Study in Rwanda, *J Math Teacher Education*, 12, 315 – 324, <https://dx.doi.org/10.1007/s10857-009-9124-1>
- Palhares, P. 2012. Mathematics Education and Ethnomathematics. A Connection in Need of Reinforcement. *REDIMAT Journal of Research in Mathematics Education*, 1(1), 79 – 92
- Phonapichat, P., Wongwanich, S., & Sujiva, S. 2014. An Analysis of Elementary School Students' Difficulties in Mathematical Problem Solving. *Procedia - Social and Behavioral Sciences*, 116(2014), 3169 – 3174, <https://dx.doi.org/10.1016/j.sbspro.2014.01.728>
- Polya, G. 1973. *How To Solve It (2nd ed)*. Princeton: Princeton University Press
- Prabowo, A. 2009. Aliran-aliran Filsafat dalam Matematika. *JMP*, 1(2), 25 – 45
- Putra, H. D., Herman, T., & Sumarmo, U. 2017. Development of Student Worksheets to Improve the Ability of Mathematical Problem Posing. *International Journal on Emerging Mathematics Education (IJEME)*, 1(1), 1 – 10, <http://dx.doi.org/10.12928/ijeme.v1i1.5507>
- Ritonga, E. M., Surya, E., & Syahputra, E. 2017. Development of Learning Devices Oriented Model Eliciting Activities to Improve Mathematical Problem Solving Ability Junior High School Students. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 33(3), 42 – 52
- Rochmad. 2012. Desain Model Pengembangan Perangkat Pembelajaran. *Jurnal Kreano*, 3(1), 59-72
- Rohmah, M., & Sutiarto, S. 2018. Analysis Problem Solving in Mathematical Using Theory Newman. *EURASIA Journal of Mathematics, Science and Technology Education*, 14(2), 671 – 681, <https://dxdoi.org/10.12973/ejmste/80630>
- Rosa, M., & Gavarrete. 2016. Polysemic Interactions between Ethnomathematics and Culturally Relevant Pedagogy. Rosa (Eds.), *Current and Future Perspectives of Ethnomathematics as a Program, ICME-13 Topical Survey* (hlm. 23 – 37), https://dxdoi.org/10.1007/978-3-319-30120-4_3

- Rosa, M., & Orey, D. C. 2016. State of the Art in Ethnomathematics. Rosa (Eds.), *Current and Future Perspectives of Ethnomathematics as a Program, ICME-13 Topical Surveys* (hlm. 11 – 37), https://dxdoi.org/10.1007/978-3-319-30120-4_3
- Saragih, S., & Napitupulu, E. 2015. Developing Student-Centered Learning Model to Improve High Order Mathematical Thinking Ability. *International Education Studies*, 8(6), 104-112, <https://doi.org/10.5539/ies.v8n6p104>
- Saragih, S., Napitupulu, E. E., & Fauzi, A. 2017. Developing Learning Model Based on Local Culture and Instrument for Mathematical Higher Order Thinking Ability. *International Education Studies*, 10(6), 104 - 122, <https://doi.org/10.5539/ies.v10n6p114>
- Scherer, R., & Beckmann, J. F. 2014. The Acquisition Of Problem Solving Competence: Evidence from 41 Countries that Math and Science Education Matters. *Large-scale Assessments in Education*, 2(10), 1 – 22
- Schoenfeld, A. H. 1980. Teaching Problem-Solving Skills. *The American Mathematical Monthly*, 87(10), 794 – 805, <https://10.2307/2320787>
- Schoenfeld, A. H. 1987. Polya, Problem Solving, and Education. *Mathematics Magazine*, 60(5), 283 – 291
- Schoenfeld, A. H. 2013. Reflections on Problem Solving Theory and Practice. *The Mathematics Enthusiast*, 10(1,2), 9 – 32
- Schunk, D. H., & Pajares, F. 2002. Development of Academic Self-Efficacy. *Educational Psychology*, 2002, 15 – 31, <https://doi.org/10.1016/B978-012750053-9/50003-6>
- Shieh, C. J., & Yu, L. A. 2016. Study on Information Technology Integrated Guided Discovery Instruction Toward Students Learning Achievement and Learning Retention. *Eurasia Journal of Mathematics, Science & Technology Education*, 12(4), 833 – 842, <https://doi.org/10.12973/eurasia.2015.1554a>
- Sibilia, L., Schwarzer, R., & Jerusalem, M. 1995. *General Self-Efficacy Scale*. Dalam J. Weinman, S. Wright, dan M. Johnston (Eds). *Measure in Health Psychology; A user's portfolio, Causal and Control Beliefs*, 35 – 37. Windsor, UK: NFER-Nelson

- Simamora, R. E., Sidabutar, D. R., & Surya, E. 2017. Improving Learning Activity and Students' Problem Solving Skill through Problem Based Learning (PBL) In Junior High School. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 33(2), 321 – 331
- Simamora, S. J., Simamora, R. E., & Sinaga, B. 2017. Application of Problem Based Learning to Increase Students' Problem Solving Ability on Geometry in Class X SMA Negeri 1 Pagaran. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 36(2), 234 – 251
- Skaalvik, E. M., Federici, R. A., & Klassen, R. M. 2015. Mathematics Achievement and Self-efficacy: Relations with Motivation for Mathematics. *International Journal of Educational Research*, 72, 129 – 136, <http://dx.doi.org/10.1016/j.ijer.2015.06.008>
- Sudjana. 2005. *Metoda Statistika*. Bandung: Tarsito
- Sugiyono. 2017. *Metode Penelitian Kuantitatif, Kualitatif dan R & D*. Bandung: Alfabeta
- Syahbana, A. 2012. Pengembangan Perangkat Pembelajaran Berbasis Kontekstual untuk Mengukur Kemampuan Berpikir Kritis Matematis Siswa SMP. *Edumatica*, 2(2), 17 – 26
- Szetela, W., & Nicol, C. 1992. Evaluating Problem Solving in Mathematics. *Educational Leadership*, 5, 42 – 45
- Taylor, L. 1993. Vygotskyan Scientific Concepts: Implications for Mathematics Education. *Focus on Learning Problems in Mathematics*, 15, 2 – 3
- Thiagarajan, S., Semmel, D. S., & Semmel, M. I. 1974. *Instructional Development for Training Teachers of Exceptional Children: A Sourcebook*. Indiana: Indiana University
- Trianto. 2013. *Model Pembelajaran Terpadu dalam Teori dan Praktek*. Jakarta: Prestasi Pustaka
- Vygotsky, L. S. 1977. The Development of Higher Psychological Functions. (Original 1931). *Soviet Psychology*, 15 (3), 60 – 73
- Wheeler, D. D. 1970. Processes in Word Recognition. *Cognitive Psychology*, 1(1), 59 – 85, [http://dx.doi.org/10.1016/0010-0285\(70\)90005-8](http://dx.doi.org/10.1016/0010-0285(70)90005-8)
- White, A. L. 2010. Numeracy, Literacy and Newman's Error Analysis. *Journal of Science and Mathematics Education in Southeast Asia*, 33(2), 129 – 148

- Yang, E. F. Y., Liao, C. C. Y., Ching, E., Chang, T., & Chan, T. W. 2010. The Effectiveness of Inductive Discovery Learning in 1: 1 Mathematics Classroom, *Proceedings of the 18th International Conference on Computers in Education*. Putrajaya, Malaysia:Asia-Pacific Society for Computers in Education, 743 – 747
- Yuliani, K., & Saragih, S. 2015. The Development of Learning Devices Based Guided Discovery Model to Improve Understanding Concept and Critical Thinking Mathematically Ability of Students at Islamic Junior High School of Medan. *Journal of Education and Practice*, 6(24), 116 – 128
- Yusra, D. A., & Saragih, S. 2016. The Profile of Communication Mathematics and Students' Motivation by Joyful Learning-based Learning Context Malay Culture. *British Journal of Education, Society & Behavioural Science*, 15(4), 1 – 16, <https://doi.org/10.9734/BJESBS/2016/25521>
- Zimmerman, B. J. 2000. Self-Efficacy: An Essential Motive to Learn. *Contemporary Educational Psychology*, 25, 82 – 91, <https://doi.org/10.1006/ceps.1999.1016>