

DAFTAR PUSTAKA

- Abdullah A. & Eny R. (1998). *Ilmu Alamiah Dasar*. Jakarta: Bumi Aksara
- Agung, I. G. N. (1992). *Analisis statistik berdasarkan data terputus, dengan ilustrasi data demografi*. University of Indonesia, Demographic Institute, Faculty of Economics.
- Aikenhead, G. S. & Cross, E. R. (2003). *A Vision for Science Education: Responding to the Work of Peter J. Fensham*.
- Anderson, L. W., & Bloom, B. S. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.
- Angeli et al. (2015). *Technological Pedagogical Content Knowledge*, London: Springer.
- Arbianto, dkk (2018). Kesiapan Technological Pedagogical And Content Knowledge (TPACK) Calon GuruBidang Teknik di Universitas Negeri Malang. *Jurnal Teknik Mesin dan Pembelajaran*. 1(2). P 1-9
- Arbiyanto, U. F., Widiyanti, & Nurhadi, D. (2018). Kesiapan TPACK Calon Guru Bidang Teknik di Universitas Negeri Malang. *Jurnal Teknik Mesin dan Pembelajaran*, 1(2), 1–9.
- Arends R. I., 2012, *Learning To Teach (9th Edition)*, McGraw-Hill Companies: Newyork.
- Arifa F. N. & Prayitno U. S., 2019. Peningkatan Kualitas Pendidikan: Program Pendidikan Profesi Guru Prajabatan dalam Pemenuhan Kebutuhan Guru Profrsional di Indonesia. *Aspirasi: Jurnal Masalah-Masalah Sosial*. 10 (1). p. 1-17
- Arikunto, S. (1986). *Sebuah Pengetahuan Dasar Tentang Evaluasi Pendidikan*.
- Ball, D. L. (2000). Bridging practices: Intertwining content and pedagogy in teaching and learning to teach. *Journal of teacher education*, 51(3), 241-247.
- Ball, D. L., & McDiarmid, G. W. (1989). *The subject matter preparation of teachers*. East Lansing, Michigan: National Center for Research on Teacher Education.
- Bearison, D. J., Dorval, B., LeBlanc, G., Sadow, A., & Plesa, D. (2002). *Collaborative cognition: Children negotiating ways of knowing* (Vol. 68). Greenwood Publishing Group.
- Bell, S. M., & McCallum, R. S. (1995). Development of a scale measuring student attributions and its relationship to self-concept and social functioning. *School Psychology Review*, 24(2), 271-286.

- Bolden, B., DeLuca, C., Kukkonen, T., Roy, S., & Wearing, J. (2020). Assessment of Creativity in K-12 Education: A Scoping Review. *Review of Education*, 8(2), 343-376.
- Bolden, D. S., Harries, T. V., & Newton, D. P. (2010). Pre-service primary teachers' conceptions of creativity in mathematics. *Educational studies in mathematics*, 73(2), 143-157.
- Borich, G. D. (1990). Decision Oriented Evaluation. *Walberg, HG y.*
- Bostwick, G. J., & Kyte, N. S. (1988). Validity and reliability. *RM Grinnell Social Work Research and Evaluation*, 111-136.
- Briggs, M., & David, S. 2008. *Creative Teaching: Matheatics in the Earlyyears and Primary Classroom*. London: Routledge.
- Brooks, J. G., & Brooks, M. G. (2001). Becoming a constructivist teacher. *Developing minds: A resource book for teaching thinking*, 150-157.
- Brousseau, G. (1998). *Theory of didactical situations in mathematics: didactique des mathématiques, 1970-1990*, Kluwer Academic, Dordrecht.
- Bruner, J. (1966). Learning by Discovery. Ed. L. Shulman and E. Keisler.
- Bull, K. S., Montgomery, D., & Baloché, L. (1995). Teaching creativity at the college level: A synthesis of curricular components perceived as important by instructors. *Creativity Research Journal*, 8(1), 83-89.
- Carey, S. (1985). *Conceptual change in Childhood*. Cambridge, MA:MIT Press
- Conant, J. B. (1950). *The Overthrow of the Phlogiston theory: the Chemical Revolution of 1775-1789*. Harvard University Press.
- Craft, A. (2002). *Creativity and early years education: A lifewide foundation*. A&C Black.
- Dahar R. W. 2007, *Teori Belajar dan Pembelajaran*, Jakarta: Erlangga.
- Dahar, R.W. 1996. *Teori-teori Belajar*. Jakarta: Erlangga.
- Darmodjo, H., & Kaligis, J. R. (1992). Pendidikan IPA II. *Jakarta: Depdikbud*.
- Davies, *et al.* (2013), Creative learning environments in education—A systematic literature review. *Thinking skills and creativity*, 8: 80-91.
- Denervaud, S., Knebel, J. F., Hagmann, P., & Gentaz, E. (2019). Beyond executive functions, creativity skills benefit academic outcomes: Insights from Montessori education. *PloS one*, 14(11), e0225319.
- Djumhana N., 2009, *Pembelajaran Ilmu Pengetahuan Alam*, Jakarta: Direktorat Jenderal Pendidikan Islam Departemen Agama Republik Indonesia.
- Dousay, T. A. (2018). Designing for creativity in interdisciplinary learning experiences. In *Educational technology to improve quality and access on a global scale* (pp. 43-56). Springer, Cham.

- Dyer, J. H., Gregersen, H. B. & Christensen, C. M., 2011. *The Innovator's DNA: Mastering the Five Skills of Disruptive Innovators*. Harvard Business Review, 87 (12), p.304.
- Eberly, J. L., & Rand, M. K. (2003). Identifying and Describing Perceptual Factors Used for Inferring Teacher Candidate Dispositions from Online Case-Based Discussions.
- Ernest, P. (1994). Constructivism: Which form provides the most adequate theory of mathematics learning?. *Journal für Mathematik-Didaktik*, 15(3-4), 327-342.
- Fahmina, S. S., Masykuri, M., Ramadhani, D. G., & Yamtinah, S. (2019, December). Content validity uses Rasch model on computerized testlet instrument to measure chemical literacy capabilities. In *AIP Conference Proceedings* (Vol. 2194, No. 1, p. 020023). AIP Publishing LLC.
- Fensham, P. J., Gunstone, R. F., & White, R. T. (1994). Views of Learning and Teaching. *The content of science: A constructivist approach to its teaching and learning*, 1.
- Fisher, R. (1990). Creative thinking. *Teaching Children to Think*.
- Fisher, R., & Williams, M. (Eds.). (2004). *Unlocking creativity: Teaching across the curriculum*. Routledge.
- Fitri, U. (2019, April). Validity of development of student's worksheet based on problem-based learning model on parabolic motion materials assisted by digital display practicum. In *Journal of Physics: Conference Series* (Vol. 1185, No. 1, p. 012061). IOP Publishing.
- Gardner, H. (2008). A multiplicity of intelligences. In *Neuropsychological Research* (pp. 26-32). Psychology Press.
- Gardner, H. (2011). *Frames of mind: The theory of multiple intelligences*. Hachette Uk.
- Gardner, H., 2004, *A Multiplicity of Intelligences: In Tributeto Proffessor Luigi Vignolo*. Scietific American, 11.
- Gauvain, M. (2001). *The social context of cognitive development*. Guilford Press.
- Gauvain, M. (2001). *The social context of cognitive development*. Guilford Press.
- Gregory, E *et. al.* (2013). Building creative thinking in the classroom: From research to practice. *International Journal of Educational Research*, 62, 43-50.
- Grenci, R. T. (2012). Entrepreneurial Creativity as a Convergent Basis for Teaching Business Communication. *Research in Higher Education Journal*, 18.
- Grieshober, W. E. (2004). Continuing a dictionary of creativity terms & definition. *New York: International Center for Studies in Creativity State University of New York College at Buffalo*. [Online]. Tersedia: <http://www.buffalostate.edu/orgs/cbir/ReadingRoom/theses/Grieswep.pdf>. [7 Juni 2008].

- Gronlund, E., Norman. 1982. *Constructing Achievement Tests*. Third Edition. London: Prentice Hall
- Gulo W., 2011, *Strategi Belajar Mengajar*, Jakarta : P.T. Grasindo
- Gundry, L. K., Ofstein, L. F., & Kickul, J. R. (2014). Seeing around corners: How creativity skills in entrepreneurship education influence innovation in business. *The International Journal of Management Education*, 12(3), 529-538.
- Guo, J., & Woulfin, S. (2016). Twenty-first century creativity: An investigation of how the partnership for 21st century instructional framework reflects the principles of creativity. *Roeper Review*, 38(3), 153-161.
- Gustafson, K. L., & Branch, R. M. (1997). *Survey of instructional development models*. Information Resources Publications, Syracuse University, 4-194 Center for Science and Technology, Syracuse, NY 13244-4100.
- Hariapsari, K. W., & Sudibyoy, E. (2018). Validity of Teaching Materials Based on Socio-Scientific Issues Approach on The Topic of Vibration, Waves, and Sound. In *Journal of Physics: Conference Series* (Vol. 1108, No. 1, p. 012034). IOP Publishing.
- Harris, P. 2000. *The Work of Imagination*. Oxford: Blackwell.
- Hasse, C. (2001). Institutional creativity: The relational zone of proximal development. *Culture & Psychology*, 7(2), 199-221.
- Hidayat, N. (2015). Peran dan Tantangan Pendidikan Agama Islam di Era Global. *Jurnal Pendidikan Agama Islam*, 12(1), 61-74.
- Hidayat, R. 2015. Pemanfaatan tek-nologi informasi dan komunikasi oleh guru sosiologi dalam menyampaikan materi pembelajaran di kelas, (Online), (<https://www.kompasiana.com/rarian-hidayat/pemanfaatan-teknologi-informasi-dankomunikasi-oleh-guru-sosiologi-dalam-menyampaikan-materi-pembelajaran-di-ke-las>), diakses pada 15 Juni 2020.
- INDONESIA, P. R. (2005). Undang-undang Republik Indonesia Nomor 14 Tahun 2005 tentang Guru dan Dosen.
- Johnson, K. E., & Ma, P. (1999). *Understanding language teaching: Reasoning in action*. Boston, MA: Heinle & Heinle.
- Jones, C., Svejnova, S., Pedersen, J. S., & Townley, B. (2016). Misfits, mavericks and mainstreams: Drivers of innovation in the creative industries.
- Joyce B., 2009, *Model of Teaching (Model-Model Pengajaran)*. Pustaka Pelajar: Yogyakarta.
- Kemendikbud, R. I. (2014). Permendikbud No. 49 Tahun 2014 tentang Standar Nasional Pendidikan Tinggi. *Jakarta: Kemendikbud*.
- Kementerian Pendidikan dan Kebudayaan Republik Indonesia: Lampiran Permendikbud Nomor 57/2014.

- Kemp, J. E., Morrison, G. R., & Ross, S. M. (1994). Developing evaluation instruments. *Designing effective instruction*. New York, NY: MacMillan College Publishing, 180-213.
- Koehler, M., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)? *Contemporary issues in technology and teacher education*, 9(1), 60-70.
- Köse, N. K. (2016). TECHNOLOGICAL PEDAGOGICAL CONTENT KNOWLEDGE (TPACK) OF ENGLISH LANGUAGE INSTRUCTORS. *Journal of Educational & Instructional Studies in the World*, 6(2).
- Lawson, A. E. (2010). *Teaching inquiry science in middle and secondary schools*. Sage.
- Lee, C. S., & Kolodner, J. L. (2011). Scaffolding students' development of creative design skills: A curriculum reference model. *Journal of Educational Technology & Society*, 14(1), 3-15.
- Li, Y., & Smith, D. (2007). Prospective middle school teachers' knowledge in mathematics and pedagogy for teaching—The case of fraction division. In *Proceedings of the 31st Conference of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 185-192).
- Magnusson S., Joseph Krajcik & Hilda Borko (1999), Nature, Source, and Development of Pedagogical Content Knowledge for Science Teaching, dalam Newsome J. G. And N. G. Lederman (Eds) *PCK and Science Education* (hlm 95-132) . Netherlands: Kluwer Academic Publisher.
- Marcelo, C., & Yot-Domínguez, C. (2019). From chalk to keyboard in higher education classrooms: changes and coherence when integrating technological knowledge into pedagogical content knowledge. *Journal of Further and Higher Education*, 43(7), 975-988.
- Martin , Pamela N. 2009. *Societal transformation and reference services in the academic library: theoretical foundations fo re-envisioning reference*. Library Philoshopy and Practice 2009 (May).
- Mayer E. R. & Alexander P. A. 2011. *Handbook of Research on Learning and Instruction*. Newyork and London: Routledge.
- Maynard, T. (2001). The student teacher and the community of practice: A consideration of “learning as participation”. *Cambridge Journal of Education*, 31, 39-52.
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers college record*, 108(6), 1017-1054.
- Mishra, P., & Koehler, M. J. (2007, March). Technological pedagogical content knowledge (TPCK): Confronting the wicked problems of teaching with technology. In *Society for Information Technology & Teacher Education*

- International Conference* (pp. 2214-2226). Association for the Advancement of Computing in Education (AACE).
- Morris W., 2006, *Creativity: Its Place in Education*, http://www.creativejeffrey.com/creative/Creativity_in_Education.pdf diunduh tanggal 18 September 2019.
- Mullen, C. A. (2019). Do Chinese Learners Have a Creativity Deficit?. *Kappa Delta Pi Record*, 55(3), 100-105.
- Mulyasa, E. (2006). *Kurikulum yang disempurnakan*. Bandung: PT Remaja Rosdakarya.
- Munandar, S. C. 2012. *Pengembangan Kreativitas Anak Berbakat*. Jakarta: Rineka Cipta.
- Newton, D. P. (2012). Recognizing creativity. *Creativity for a new curriculum*, 108-119.
- Newton, L., & Beverton, S. (2012). Pre-service teachers' conceptions of creativity in elementary school English. *Thinking skills and creativity*, 7(3), 165-176.
- Nickerson, R. S. (1999). 20 Enhancing Creativity. *Handbook of creativity*, 392.
- Nieveen, N. (1999). Prototype to reach product quality. Dlm. Van Den Akker, J., Branch, RM, Gustafson, K., Nieveen, N., & Plomp, T. *Design and tools in educational and training*. Dordrecht: Kluwer Academic Publisher.
- Ozden M., 2008, *The Effect of Content Knowledge on Pedagogical Content Knowledge: The Case of Teaching Phases of Matters*. *Education Sciences: Theory & Practice*, 8 (2), 633-645.
- Panaoura, A., & Panaoura, G. (2014). Teachers' Awareness of Creativity in Mathematical Teaching and Their Practice. *Issues in the Undergraduate Mathematics Preparation of School Teachers*, 4.
- Pandiangan, P., Sanjaya, G. M. I., & Jatmiko, B. (2017). The validity and effectiveness of physics independent learning model to improve physics problem solving and self-directed learning skills of students in open and distance education systems. *Journal of Baltic Science Education*, 16(5), 651.
- Parikh, C., Maddulety, K., & Meadows, C. J. (2020). Improving creative ability of base of pyramid (BOP) students in India. *Thinking Skills and Creativity*, 100652.
- Peraturan Menteri Pendidikan dan Kebudayaan No. 49 Tahun 2014 tentang Standar Nasional Pendidikan tinggi.
- Peraturan Menteri Riset dan Teknologi No. 55 Tahun 2017 tentang Standar Pendidikan Guru.
- Peraturan Pemerintah No. 74 Tahun 2008 tentang Kompetensi Guru.
- Peraturan Pemerintah Republik Indonesia No. 74 Tahun 2008 Tentang Guru.

- Permendiknas, R. I. No. 16 Tahun 2007 tentang. *Standar Kualifikasi Akademik dan Kompetensi Guru*.
- Piaget J., (1950), *The Psychology of Intelligence*, 1950, London dan New York: Routledge Classic.
- Plomp, T. (1997). Educational and training system design. *Enschede, The Netherlands: Univercity of Twente*.
- Plomp, T. (2013). Educational design research: An introduction. *Educational design research*, 11-50.
- Prawiradilaga, D. S. (2015). *Prinsip desain pembelajaran*. Kencana.
- Prensky, M. (2001). Digital natives, digital immigrants. *On the horizon*, 9(5).
- Pribadi, B. A. (2009). Model desain sistem pembelajaran. *Jakarta: Dian Rakyat*.
- Reiser, R. A., & Dempsey, J. V. (Eds.). (2012). *Trends and issues in instructional design and technology*. Boston: Pearson.
- Rhodes, M. (1961). An analysis of creativity. *The Phi Delta Kappan*, 42(7), 305-310.
- Richey, R. C., Klein, J. D., & Nelson, W. A. (2004). Developmental research: Studies of instructional design and development. *Handbook of research for educational communications and technology*, 2, 1099-1130.
- Rosser, R. A., & Brody, G. H. (1981). Acquisition of a concrete operational rule through observational learning: How abstract is the acquired abstraction. *Merrill-Palmer Quarterly of Behavior and Development*, 27(1), 3-13.
- Rotherham & Willingham, 2009, *21st Century Skills*, Educational Leadership 67(1), pp 16-21.
- Samatowa. U., 2010, *Pembelajaran IPA di Sekolah Dasar*, Jakarta: PT. Indeks.
- Sanjaya W., 2011, *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*, Jakarta: Kencana Prenada Media.
- Santrock, J. W., & Santrock, J. W. (2007). Psikologi Pendidikan (terjemahan). Jakarta: Kencana Prenada Media Group.
- Sappaile, B. I. (2007). Pembobotan Butir Pernyataan Dalam Bentuk Skala Likert Dengan Pendekatan Distribusi *Z. Jurnal Pendidikan Dan Kebudayaan*, 13(64), 1-8.
- Sawyer. R. K., 2014. *The Cambridge Handbook of The Science Learning 2nd ed*. New York: The Cambridge University Press.
- Schwab, K. (2018, November). The global competitiveness report 2018. In *World Economic Forum* (pp. 9-14).
- Seels, B., & Glasgow, Z. (1998). *Making instructional design decisions*. Merrill.

- Septiandari, W. (2020, March). Technological Pedagogical and Content Knowledge (TPACK) design in learning sound wave to foster students' creativity. In *Journal of Physics: Conference Series* (Vol. 1521, No. 4, p. 042099). IOP Publishing.
- Shambaugh, R. N., & Magliaro, S. (1997). *Mastering the possibilities: A process approach to instructional design*. Allyn and Bacon.
- Shulman L. S. 1986. *Those Who Understand: Knowledge Growth in Teaching*. Educational Researcher. Vol. 15 (2) 4-14.
- Shulman L. S. 1987. *Knowledge and Teaching: Foundations of the New Reform*. Harvard Educational Review. Vol. 57 (1) 1-21.
- Silver, E. A. (1977). *Fostering Creativity through Instructional Rich in Mathematical Problem Solving and Thinking in Problem Posing*. Vol. 29 (3).
- Sinaga, B. (2007). Pengembangan Model Pembelajaran Matematika Berdasarkan Masalah Berbasis Budaya Batak. (Doctoral dissertation, Tidak Diterbitkan, Surabaya: Program Pascasarjana UNESA).
- Siswono, T. T., 2004. *Pendekatan Pembelajaran Matematika*, Jakarta: Depdiknas.
- Siswono, T.T., & Kurniwati, 2005. *Identifikasi Proses Berpikir Kreatif siswa dalam Pengajuan Masalah Matematika dengan Informasi berupa Gambar: Penerapan Model Wallas*. Matematika. Jurnal Matematika atau Pembelajarannya. Vol 11 (1) April 2005. ISSN: 0852-7792.
- Sitorus, J. (2017). Students' thinking way: learning trajectory of realistic mathematics education. *International Journal of Innovation in Science and Mathematics*, 5(1), 22-31.
- Smith D. S. & Daniel C. Neale, 1989, *The Instruction of Subject Matter Knowledge in Primary Science Teaching*, Teaching & Teacher Education, Vol. 5 (1) pp. 1-20
- Soekamto, T., & Winataputra, U. S. (1997). Teori belajar dan model-model pembelajaran. *Jakarta: P2T Universitas Terbuka*.
- Solso, R. L. 1995. *Cognitive Psychology (4th ed.)*. Boston: Allyn & Bacon, Inc.
- Sulistiyorini S., 2009, *Pembelajaran IPA di Sekolah Dasar*, Semarang: Unnes Press.
- Suparman, M. A. (2012). Desain instruksional modern. *Jakarta: Erlangga*.
- Susilawati. (2013). *Pembelajaran IPA di Madrasah Ibtidaiyah*. Pekanbaru: Penerbit Benteng Media.
- Suwadarma, S. W., Sudiatmika, A. A. I. A. R., & Suja, I. W. (2020). The validity and practicality of the chemistry learning device by using STEM-PjBL model. *Jurnal Imiah Pendidikan dan Pembelajaran*, 4(1), 19-28.
- Tim Penyusun Modul Buku Sumber untuk Dosen LPTK, 2014, Pembelajaran IPA SMP di LPTK. USAID Prioritas.

- Trianto, 2007, *Mendesain Model Pembelajaran Inovatif Progresif*, Jakarta: Kencana.
- Trianto. 2010. *Mengembangkan Model Pembelajaran Tematik*. Jakarta: Prestasi Pustaka.
- Usmaldi, U., Amini, R., & Trisna, S. (2017). The development of research-based learning model with science, environment, technology, and society approaches to improve critical thinking of students. *Jurnal Pendidikan IPA Indonesia*, 6(2), 318-325.
- Validity, practicality, and effectiveness development of biology textbooks integrated with augmented reality on high school students
- van der Zanden, P. J., Meijer, P. C., & Beghetto, R. A. (2020). A review study about creativity in adolescence: Where is the social context?. *Thinking Skills and Creativity*, 38, 100702.
- Vygotsky, L. S. (1997). *The collected works of LS Vygotsky: Problems of the theory and history of psychology* (Vol. 3). Springer Science & Business Media.
- Walia, C. (2019). A Dynamic Definition of Creativity. *Creativity Research Journal*, 31(3), 237-247.
- Walshaw, M. (2013). Explorations into pedagogy within mathematics classrooms: Insights from contemporary inquiries. *Curriculum Inquiry*, 43(1), 71-94.
- Weisberg, R. W. (1988). Problem solving and creativity. *The nature of creativity: Contemporary psychological perspectives*, 148.
- Wellington, J., & Ireson, G. (2013). *Science learning, science teaching*. Routledge.
- West, L.H.T & Pines, A.L. (1985). *Cognitive Structure and Conceptual Change*. London: Academic Press. Inc.
- Wijayanti, S., & Sungkono, J. (2017). Pengembangan Perangkat Pembelajaran mengacu Model Creative Problem Solving berbasis Somatic, Auditory, Visualization, Intellectually. *Al-Jabar: Jurnal Pendidikan Matematika*, 8(2), 101-110.
- World Economic Forum (2018). The Future of Jobs Report 2018. Retrieved from http://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf (diakses 23 Juni 2020).
- Yulkifli, Y., Ningrum, M. V., & Indrasari, W. (2019). The Validity of Student Worksheet Using Inquiry-Based Learning Model with Science Process Skill Approach for Physics Learning of High School. *Jurnal Penelitian & Pengembangan Pendidikan Fisika*, 5(2), 155-162.