

## DAFTAR PUSTAKA

- Anderson *et al.* (2001). *A Taxonomy for Learning, Teaching, and Assesing: A Revision of Bloom's Taxonomy of Educatioanl Objectives*. New York: Addison Wesley Longman, Inc.
- Arikunto, S. (2013). *Dasar-dasar Evaluasi Pendidikan (Edisi 2)*. Jakarta: Bumi Aksara.
- Bloom., B. S. (1979). *Taxonomy of Education Objectives: The Classificational Goals*. London: Longman Group.
- Buckley, B. C., and Boulter, C. J. (2000). Investigating the role of representations and expressed models in building mental models. In Gilbert, J. K., and Boulter, C. J. (Eds.), *Developing Models in Science Education*, Kluwer, Dordrecht, Holland, pp. 105–122.
- Clement, J. (1989). Learning via model construction and criticism. In G. Glover, R. Ronning, & C. Reynolds (Eds.), *Handbook of creativity: Assessment, theory and research* (pp. 341–381). New York: Plenum.
- (2000). Model based learning as a key research area for science education. *International Journal of Science Education*, 22, 1041-1053.
- Creswell, J.W. (2009). *Research Design (Pendekatan Kualitatif, Kuantitatif, dan Mixed)*. Yogyakarta: Pustaka Pelajar.
- Cumming, K., *et al.* (2004). *Understanding Physics*. USA: John Wiley & Sons, Inc.
- Darwis, R. (2015). Pembelajaran Berbasis Inkuiri dengan Aktivitas Laboratorium untuk Meningkatkan Pengusaan Konsep dan Keterampilan Proses Sains Siswa SMP, *Tesis*, Bandung : SPs UPI
- Depdiknas. (2003). *Standar Kompetensi Mata Pelajaran Sains Sekolah Menengah Pertama dan Madrasah Tsanawiyah*. Jakarta: Departemen Pendidikan Nasional.
- Engelhardt, P.V., & Beichner, R. J. (2004). Students' Understanding of Direct Current Resistive Electrical Circuit. *American Journal of Physics*, 72(1), 98-115.
- Giancoli, D.C. (2001). *Fisika*. Jakarta: Erlangga.
- Gilbert, S. (1991). Model building and a definition of science. *Journal of Research in Science Teaching*, 28(1), 73-79.

- Gilbert, J. (1995). The role of models and modelling in some narratives in science learning. Presented at the Annual Meeting of the American Educational Research Association, April 18-22. San Francisco, CA, USA.
- Gobert, J. D. & Buckley, B. C. (2000). Introduction to model-based teaching and learning in science education. *Science education*, 33, (9), 891-894.
- Graber, W. *et al.* (2001). Scientific Literacy: From Theory to Practice. *Science education*, 61-70
- Hake, R. R. (1998). Interactive-engagement versus traditional methods: A six-thousand student survey of mechanics test data for introductory physics courses. *American Journal of Physics*, 66, 1.
- Halloun, I. A. (1996). Schematic Modeling for Meaningful Learning of Physics. *Journal of Research in Science Teaching*, 33 (9).
- (1998). Interactive Model-Based Education: An Alternative to Outcomes-Based Education in Physics. *South African Journal of Science*, 94.
- (2006). *Modeling Theory In Science Education*. Netherlands: Springer
- (2007). Mediated Modeling in Science Education. *Science & Education*, 16, 653-697
- Hernandez, M. I., Couso, & Pinto, R. (2014). Analyzing Students' Learning Progressions Throughout a Teaching Sequence on Acoustic Properties of Materials with a Model-Based Inquiry Approach. *Journal science Education Technology*, 1-22.
- Ingham, A. M. & Gilbert, J. K. (1991). The use of analogue models by students of chemistry at higher education level. *International Journal of Science Education*, 13, 193-202.
- Kerlinger, F. N. (1986). *Foundation Of Behavioral Research*. Oregon: Holth, Rinehart and Winston Inc.
- Koponen, I. T. (2007). Model and Modelling in Physics education: A Critical re-analysis of philosophical underpinnings and suggestions for revisions. *Science & Education*, 16, 751-773.
- Liliasari. (2005). *Pembelajaran Sains sebagai Wahana Pengembangan Berpikir Siswa dalam Meningkatkan Implementasi Kurikulum 2004*. Seminar

Nasional Pendidikan IPA ke-2, Sekolah Pascasarjana UPI. September 2005.

Maia, P. F. & Justi, R. (2009). Learning of chemical equilibrium through modelling-based teaching. *International journal of science education*, 31, 603-630.

National Science Teachers Association. (1995). *Scope, Sequence, and Coordination of Secondary School Science. Volume 3. A High School Framework for National Science Education Standards*. Washington, DC: NSTA.

Nersessian, N. J. (2002). *The cognitive Basis of Model-Based Reasoning in Science*. Cambridge: Cambridge University Press.

Newton, P., Driver, R., & Osborne, J. (1999). The place of argumentation in the pedagogy of school science. *International Journal of Science Education*, 21 (5), 553-576.

Nurhayati. (2010). Pembelajaran Konsep Kalor Melalui Kegiatan Laboratorium Desain untuk Meningkatkan Pengusaan Konsep dan Keterampilan Proses Sains Siswa SMA, *Tesis*, Bandung : SPs UPI.

Oh, P. S. & Oh, S. J. (2010). What Teachers of Science Need to Know about Models: An overview. *Science & Education*, 33, 1109-1130.

Padilla, J. M. (1990). The Science Process Skills. [online]. Tersedia: <https://www.narst.org/publications/research/skill.cfm>

Passmore, C. & Stewart, J. (2002). A modeling approach to teaching evolutionary biology in high schools. *Journal of Research in Science Teaching*, 39 (3), 185-204.

Pemerintah Republik Indonesia. (2013). Permendikbud Nomor 54 Tahun 2013, tentang Standar Kompetensi Lulusan. Sekretariat Negara. Jakarta.

Ramig, J. E, Bailer, J, & Ramsey, J. (1995). *Teaching Science Process Skill*. United State of America: Paramout Supplement Education.

Ramirez, M., A., Clement, J. & Núñez-Oviedo, M. C. (2008). *An instructional model drived from model construction and criticism theory*.

Riduwan. (2008). *Skala Pengukuran Variabel-variabel Penelitian*. Bandung: ALFABETA

Rustaman, N.Y., dkk. (2003). *Strategi Belajar Mengajar Biologi*. Bandung: Jurusan Pendidikan Biologi FMIPA UPI.

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**PENGUNAAN PENGAJARAN BERBASIS MODEL ILMIAH UNTUK MENINGKATKAN KEMAMPUAN MEMAHAMI DAN KETERAMPILAN PROSES SAINS SISWA**

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- Santrock, J. W. 2009. *Psikologi Pendidikan*. (alih bahasa: Diana Angelica). Jakarta : Salemba Humanika
- Schwarz, C.V., Reiser, B.J., Davis, E.A., Kenyon, L., Ache´r, A., Fortus, D., Shwartz, Y, Hug, B., & Krajcik, J. (2009). Developing a learning progression for scientific modeling: Making scientific modeling accessible and meaningful for learners. *Journal of Research in Science Teaching*, 46, 632–654.
- Semiawan, C. *et al.* (1985). *Pengantar Psikologi Umum*. Diterbitkan oleh Yayasan Penerbitan Fakultas Psikologi UGM, Yogyakarta.
- Suparno, P. (2013). *Metodologi Pembelajaran Fisika (Konstruktivisme dan Menyenangkan)*. Yogyakarta: Universitas Sanata Dharma.
- Suriasumantri, J. S. (2010). *Filsafat Ilmu Sebuah Pengantar Populer*. Jakarta: Pustaka Sinar Harapan.
- Schwarz, C.V., Reiser, B.J., Davis, E.A., Kenyon, L., Ache´r, A., Fortus, D., Shwartz, Y, Hug, B., & Krajcik, J. (2009). Developing a learning progression for scientific modeling: Making scientific modeling accessible and meaningful for learners. *Journal of Research in Science Teaching*, 46, 632–654.
- Swetz, F., & Hartzler, J.S. (Eds.). (1991). *Mathematical Modeling in the Secondary School Curriculum*. Reston, VA: National Council of Teachers of Mathematics.
- Tipler, P. A. (1991). *Physics for Science and Engineers, Third Edition*. New York: Worth Publishers.
- Pemerintah Republik Indonesia. (2003). UU Pasal 3 Tahun 2003, tentang Sistem pendidikan Nasional. Sekretariat Negara. Jakarta.
- Wells, M. & Hestenes, D. (1995). A modeling method for high school physics instruction. *American Journal of Physics*, 63, 7.
- Wells, M., Hestenes, D., & Swackhamer, G. (1995). A modeling method for high school physics instruction. *American Journal of Physics*, 63(7).
- White, B.Y. (1993). Intermediate causal models: A missing link for successful science education? In Glaser, R. (Ed.). *Advances in Instructional Psychology*, 4, 177-251.