

DAFTAR PUSTAKA

- Abdullah, S., dan Sariff, A., (2008). The Effects of Inquiry-Based Computer Simulation with Cooperatif Learning on Scientific Thinking and Conceptual Understanding of Gas Laws. *Eurasia Journal of Mathematic, Science and Technology Education*, 4(4): 387-398.
- Abizar, (1997). *Komunikasi Organisasi*. Jakarta. P2LPTK.
- Ali Muhidin, S, dan Abdurahman, M, (2007), *Analisis Korelasi, Regresi, dan Jalur Dalam Penelitian*, Pustaka Setia: Bandung.
- Anderson, O.W., dan Kautnik, (1972). *A taxonomy for Learning. Teaching and Assesing*. New York . Addison Wesley Longman Inc.
- Arsyad, A., (2004). *Media Pengajaran*. Rineka. Jakarta. Cipta
- Azmi, (2004). Makna Pendidikan. *Warta Kita, Senin*, 1 Maret 2004, hal. VII. Kolom 3-4.
- Bain, R., Jacobsen, J.J., Maynard, J.H., dan Moore, J.W., (2005). Chemistry Comes Alive, *Journal of Chemical Eduction*, 82: 1102-1104.
- Byrne, M. S. dan Johnstone, A. H. (1987). Can critical-mindedness be taught? *Education in Chemistry*, 24: 75-77.
- Briggs, L., (1970). *Principles of Instructional Design*, New York: Holt, Renhart, and Winston.
- Bloom, B.S., (1971). *Evaluation to Improve Learning*, Mc. Grow Hill Book Company, New York.
- Bloom, B. S., (1979). *Taxonomy of Education Objectives Book I Cognitive Domain*. London .Longman Group Ltd.
- Browne, L.M., dan Blackburn, E.V., (1999), Teaching introductory organic chemistry: a problem-solving and collaborative-learning approach. *Journal of Chemical Education*, 76: 1104- 1107.
- Burden, PR and Bryd, DM., (1999). *Methods for effective Teaching (2nd ed)*, Boston : Allyn and Bacon.
- Charles, F, (2008). *Multimodal Learning Through Media: What the Research Says*. Cisco Systems, Inc. <http://www.cisco.com/web/strategy/docs/education/Education-and-Economic-Growth.pdf>.
- Dale, E., (1969). *Audio Visual Methods in Teaching*. (3rd edition.), New York : The Dryden Press.

- Davies, I.K., (1991). *Pengelolaan Belajar*. Jakarta. Rajawali.
- Dimyanti dan Mudjiono, (2002). *Belajar dan Pembelajaran*. Jakarta. Rineka Cipta.
- Djamara, S.B., (1995). *Preatasi Belajar dan Kompetensi Guru*. Surabaya. Penerbit Usaha Nasional.
- Falvo, D. (2008). Animations and simulations for teaching and learning molecular chemistry. *International Journal of Technology in Teaching and Learning*, 4(1): 68–77.
- Felder, R. M. (1996). Active-inductive-cooperative learning: an instructional model for chemistry? *Journal of Chemical Education*, 73: 832-836.
- Francisco, J. S., Nicoll, G., Trautmann, M., (1998). Integrating teaching methods into a general chemistry classroom. *Journal of Chemical Education*, 75: 210-213.
- Gagne, R. M., (1970). *Principles of Instructional Design*, New York. Holt, Renhart, and Winston.
- Gerlach, V. G. dan Ely, D. P., (1971). *Teaching and Media*. Systematic Approach. Englewood Clifft : Frentice-Hall, Inc.
- Ginarlo, L.C., dan Slunt, K.M., (2004). The dog ate my homework: A Cooperative Learning Project For Instrument Analysis, *Journal of Chemical Education*, 81:868 – 869.
- Hamalik, O., (1994). *Media Pendidikan*. Bandung. Citra Aditya Bakti.
- Hasibuan, MSP, (2001). *Organisasi dan Motivasi*. Jakarta. Bumi Aksara.
- Heinich, R, Molenda, M dan Russel, J.D., (2002). *Instructional Media and The New Technoloogies of Instruction*. (3rd ed). New York. Mcmillan Publishing Company.
- Hurlock, E.B., (1990). *Perkembangan Anak*. Terjemahan Meitasari Tjendrasa. Jakarta. Erlangga.
- Irianto, A.H., (2007). *Statistik Konsep dan Aplikasinya*. Jakarta. Kencana.
- Iskandar, (2008). Metodologi Penelitian Pendidikan dan Sosial. Jakarta. GP. Press.
- Jalil, F.,(2008), *Di bawah lima persen Mahasiswa yang menekuni sain, Republik*, 4 November 2008 . hal 21.
- Johnson, D.W., Johnson, R.T., dan Stanne, M.B. (2000). *Cooperative Learning Methods: A meta-analysis*.University of Minnesota,

- Minneapolis: Cooperative Learning Center,
<http://www.cooperation.org/pages/cl-methods.html>.
- Johnson, D. W., dan R. T. Johnson, (1999) *Learning Together and Alone :Cooperative, Competitive, and Individualistic Learning* (5th ed.). Boston: Allyn & Bacon Publishing.
- Jonhnson, D., dan Roger, T., (1994). An Overview of cooperative learning. In Thausan, J., Villa, A., dan Nevin, A., Creative and collaborative learning. BrooksPress, Baltimore. Online: <http://www.cooperation.org/pages/ overviewpaper.html>.
- Johnson, D., dan Johnson, R., (1994). Positive interdependence: Key to effective cooperation. In R. Hertz-Lazarowitz & N. Miller, (Eds.), *Interaction in cooperative learning: The theoretical anatomy of group learning*. (pp. 174-199). Cambridge University Pres.
- Johnson, D.W., dan Johnson, R.T., (1975). *Learning together and alone: Cooperative competition and individualization*. Englewood Cliffs, NJ: Prentice Hall.
- Johnson, D.W., dan Johnson, R.T. (1978). Student cooperative, competitive, and individualistic attitudes towards schooling. *Journal of Educational Psychology*, **100**: 183-199.
- Karitman, T.M., (2002), Strategi Pembelajaran Abad 21. Jakarta: *Makalah* (disajikan di Jakarta dalam Seminar Nasional Teknologi Pembelajaran, 18 – 19 Juli 2002).
- Keller, S.L., dan Smith, A.L., (2006), Advice for new faculty teaching undergraduate science, *Journal of Chemical Education*, **83**: 401-406.
- Kemp, J.E., Morrison, G.R., Ross, S.M. (1994). *Designing Learning in the Science Classroom*. New York. Glencoe Macmillan/Mc.Graw-Hill.
- Kovac, J. (1999). Student active learning methods in general chemistry. *Journal of Chemical Education*, **76**: 120-124.
- Kreyenbuhl, J.A. dan Atwood, C.H., (1991). Are We Teaching the Right Things in General Chemistry?, *Journal of Chemical Education*, **68**: 914-918.
- Lie, Anita,. (2004). *Cooperative Learning*. Jakarta. Grasindo.
- Lynch, P. P., dan Wayters, M., (1980). Expectation of New Chemistry Student. *Concersing Chemistry Course. Chemistry in Australia*, **47**:238-242.

- Meltzer, D. E., (2002). The relationship between mathematics preparation and conceptual learning gains in physics: A possible “hidden variable” in diagnostic pretest scores. *American Journal of Physics*, 70(12):1259-1268.
- Miarso, Yusufhadi., (1984). *Teknologi Komunikasi Pendidikan*. Jakarta. Rajawali.
- Mulyono, A.M., (1988). *Kamus Besar Bahasa Indonesia*. Jakarta. Depdikbud.
- Nasution, N. dan Suryanto, A., (2002), *Evaluasi Pengajaran*. Jakarta. PPUT.
- Nasution, S., (2004). *Didakti Azas-azas Mengajar*. Jakarta. Bumi Aksara.
- Norman, D.G., (2005). Using STAD in an EFL Elementary School Classroom in South Korea: Effects on Student Achievement, Motivation, and Attitudes Toward Cooperative Learning. *Asian EFL Journal*.
- Nurhadi, dan Senduk, A.G., (2003). *Pembelajaran Kontekstual (Contextual Teaching and Learning/CTL) dan Penerapannya Dalam KBK*. Malang. Universitas Negeri Malang.
- Okebukola, P.A., (1985). The relative effectiveness of cooperative and competitive interaction techniques in strengthening students' performance in science classes. *Science Education*, 69: 501-509.
- Purba, M., (2005). *Kimia Untuk SMA Kelas XI*. Jakarta. Erlangga.
- Rohani, A., (1997). *Media Instructional Edukatif*. Jakarta. Rineca Cipta.
- Romiszowski, A.J., (1981). *Designing Instructional System*. London. The Open University.
- Press, Rooijakkers, A., (1993). *Mengajar Dengan Sukses*. Jakarta. Penerbit Grasindo.
- Rumansyah, (2001), *Meningkatkan Pemahaman Siswa Terhadap Konsep Kimia Karbon melalui Strategi Peta Konsep (Concept Mapping)*, <http://www.depdikbud.go.id/jurnal/142/rumansyah.htm>.
- Russel, C. A., (1976). *The Structure of Chemistry*. London. The Open University Press.
- Sanjaya W., (2007). *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Kencana Perdana Media Group. Jakarta.

- Sardiman A.M., (1986). *Interaksi dan Motivasi Belajar Mengajar*. Jakarta. Grafind.
- Sardiman, A.S., Rahardjo, R., Haryono, A., dan Rahadjito., (1986). *Media Pendidikan: Pengertian, Pengembangan, dan Pemanfaatannya*. Jakarta. Grafindo.
- Salend, S.J., dan Sonnenschein, P. (1989). Validating the effectiveness of a cooperative learning strategy through direct observation. *Journal of School Psychology*, 27(1): 47-58.
- Sardiman, S.A.,(2003). *Media Pendidikan*. Jakarta. Grafindo
- Sarwono, J, (2006), *Panduan Cepat dan Mudah SPSS 14*, Andi Offset: Yogyakarta
- Shakhshiri, B. Z. (1992). *Chemical demonstrations: a handbook for teachers of chemistry*. Madison, Wisconsin: University of Wisconsin Press.
- Shalahuddin, M., (1986). *Media Pendidikan*. Surabaya. Bina Ilmu.
- Silitonga, L.L., (2007). *Efektivitas Media Audiovisual Terhadap Peningkatan Prestasi Belajar Siswa Pada Pembelajaran Sistem Koloid*., Tesis. Program Pascasarjana, UNIMED, Medan.
- Sitompul, H., (2004). *Pengembangan Strategi Instruksional*. Makalah disajikan Pada Workshop Analisa Proses Belajar Mengajar Bagi Dosen Program Studi Teknik Mesin, ITM, Medan.
- Situmorang, M., (2004), Inovasi Model-Model Pembelajaran Bidang Sain Untuk Meningkatkan Prestasi Belajar Mahasiswa, *Prosiding Konaspi V Surabaya Tahun 2004*.
- Situmorang, M., Sinaga, M., dan Juniar, A., (2006). Efektifitas Inovasi pembelajaran untuk Meningkatkan Prestasi Belajar Mahasiswa Pada Mata Kuliah Analitik II. *Jurnal Penelitian Bidang Pendidikan*, 13(1): 1- 13.
- Situmorang, M., dan Sihole, H.M., (2006). Efektifitas Metode Praktikum Pada Pengajaran Gugus Fungsional Di Sma Toba Samosir. *Jurnal Pendidikan Matematika dan Sain*.1(1):1-7. http://www.geocities.com/J_sains.vol1_No1.html.
- Situmorang, M., Purba, J., dan Tambunan, M., (2001). Efektivitas Media Diagram Pada Pengajaran Kimia Di Sekolah Menengah Umum. *Jurnal Penelitian Bidang Pendidikan*, 8(1): 20-27.
- Slavin, Robert E., (1995). *Cooperative learning: Theory for research and practice. Second edition*. Massachusetts. Allyu and Bacon Publisher.

- Slavin, R.E., (1994). Student Teams-Achievement Divisions. In S. Sharon (Ed.), *Handbook of cooperative learning methods* (pp. 2-19). Westport, CT: Greenwood.
- Sudjana, N dan Rivai, A., (2001). *Media Pengajaran*. Bandung. Sinar Baru Algensindo.
- Sumiaji., (1998). *Pendidikan Sains yang Humanistik*. Yogyakarta. Kanisius.
- Sukiman., (2004). Pengajaran Kimia Laternatif. *Gerbang* (Des'04), hal 38-39.
- Sumanto, Wasti., (Soetopo Hendayat., (1982). *Dasar dan Teori Pendidikan Dunia*. Surabaya .Usaha Nasional.
- Suroso, (2002). *Ensiklopedi Sains dan Kehidupan*. Jakarta. Tarity Samudra Berlian.
- Stephen, I dan William B. M., (1974). Hand Book in Research and Evaluation. San Diego, California : Robert R Knapp Publishers.
- Syah, M ., (1996). *Psikologi Pendidikan* . Bandung. Rosdakarya.
- Tien, L.T., Roth, V., dan Kampmeier, J.A., (2004). Courses to Prepare Peer Leaders to Implement a Student-Assisted Learning Method, *Journal of Chemical Education*, 81: 1313-1321.
- Talanquer, V., Novodvorsky, I., Slater, T., dan Tomanek, D, (2003). A stronger role for science departments in the preparation of future chemistry teacher, *Journal of Chemical Education*, 80, 1168- 1171.
- Tirta R, V dan Sula, L., (2002). *Pengantar Pendidikan*. Jakarta : Rineka Cipta.
- Usman, Muhammad, U dan Setiawati, L., (1993). *Upaya Optimalisasi Kegiatan Belajar Mengajar*. Bandung. Rosdakarya.
- Wachanga, S.W. dan Mwangi J. G., (2004). Effects of the Cooperative Class Experiment Teaching Method on Secondary School Students' Chemistry Achievement in Kenya's Nakuru District. *International Journal of Science Education*, 5(1).
- Webb, N. M., (1989). Peer interaction and learning in small groups. *International Journal of Educational Research*, 13: 21-39.
- Winkels, A.S., (1987). *Psikologi Pembelajaran*. Jakarta. Gramedia