

## DAFTAR PUSTAKA

- Abidin, Y. (2013). *Desain sistem pembelajaran dalam konteks kurikulum 2013*. Bandung: Refika Aditama.
- Adams, W.K. dan Wieman, C.E. (2010). Development and validation of instruments to measure learning of expert-like thinking?. *International Journal of Science Education*, 33 (9), hlm. 1- 24.
- Akerson, V., dan Donnelly, L. (2010). Teaching nature of science to K-2 students: What understandings can they attain?. *International Journal of Science Education*, 32 (1), hlm. 97 - 124.
- Allahyari, T., Rangi, N.H., Khosravi, Y., dan Zayeri, F. (2011). Development and evaluating of a new questionnaire for rating of cognitive failures at work. *International Journal of Occupational Hygiene*, 3 (1), hlm.6-11.
- Arifin, M., dkk. (2000). *Strategi belajar mengajar kimia*. Bandung: Jurusan pendidikan kimia FPMIPA UPI.
- Arroio, A. (2010). Context based learning: A role for cinema in science education. *Science Education International*, 21 (3), hlm. 131-143.
- Bashir, S., Bajwa, M., dan Rana, S. (2014). Teacher as a role model and its impact on the life of female students. *International Journal Of Research*, 1 (1), hlm. 9-20.
- Borg, W. R., dan Gall, M, D., Gall, J. P., (1983). *Educational Research an Introduction; Third Edition*. USA: Pearson Education.
- Brousseau, G. (1997). *Theory of didactical situation in mathematics*. Dordrecht: Kluwer Academic Publishers.
- Brown, G.T.L., dan Hirschfeld, G.H.F. (2007). Students' conceptions of assessment and mathematics: self-regulation raises achievement. *Australian Journal of Educational & Developmental Psychology*. 7, hlm. 63-74.

- Christidou, V. (2011). Interest, attitudes and images related to science: combining students' voices with the voices of school science, teachers, and popular science. *International Journal of Environmental & Science Education*, 6 (2), hlm. 141-159.
- Christopher, B. (2012). *Science teaching, classroom discussion and contexts in junior high schools in Ghana*. Doctoral disertation in Graduate School for international development and cooperation Hiroshima University. Tidak diterbitkan.
- Dahar, R.W. (1989). *Teori-teori belajar*. Jakarta: Erlangga.
- Davis, B.G. (1999). *Cooperative Learning: Students Working in Small Groups*. Stanford University Newsletter on Teaching. Winter 1999 Vol.10, No. 2
- Dick, W., Carey, L., dan Carey, J.O. (2009). *The systematic design of Instruction* (7<sup>th</sup> Edition). New Jersey: Pearson.
- Duit, R., Gropengießer, H., Kattmann, U., Komorek, M. dan Parchmann, I. (2012). The model of educational reconstruction – a framework for improving teaching and learning science. *Sci. Educ. Res. and Pract. in Europe: Retrospective and Prospective*, 5, hlm. 13–37.
- Faridhan, Y. E., Loch, B., dan Walker, L. (2013). Improving retention in first-year mathematics using learning analytics. In H. Carter, M. Gosper and J. Hedberg (Eds.), *Electric Dreams. Proceedings ascilite 2013 Sydney*, hlm.278-282.
- Firman, H. (2007). *Laporan analisis literasi sains berdasarkan hasil PISA Nasional Tahun 2006*. Jakarta: Pusat Penilaian Pendidikan Balitbang Depdiknas.
- Frankael, J.R., Wallen, N.E., dan Hyun, H.H. (2011). *How to design and evaluate research in education 8<sup>th</sup> Edition*. New York: Mc Graww Hill.
- Graham, L. (2008, hlm.1). Gestalt theory in interactive media design. *Journal of Humanities & Social Sciences*, 2 (1), hlm. 1-12.

- Grant, D.M., Malloy, A.D., dan Hollowell, G.P. (2013). Enhancing students' interest in science and technology through cross-disciplinary collaboration and active learning techniques. *Journal of Information Technology Education*, 12, hlm. 1-12.
- Guthrie, J.T., Wigfield, A., Humenick, N.M., Perencefich, K.C., Taboada, A., Barbosa, P. (2006). Influences of stimulating tasks on reading motivation and comprehension. *The Journal of Educational Research*, 99 (4), hlm. 232-245.
- Hake, R.R. (1998). Interactive-engagement versus traditional methods: A six-thousand-student survey of mechanics test data for introductory physics courses. *Am. J. Phys*, 66 (1), hlm. 64-74.
- Hariyadi, S. 2003. *Psikologi Perkembangan*. Semarang: UNNES Press.
- Hayat, B dan Yusuf, S.(2010). *Benchmark internasional: mutu pendidikan*. Jakarta: Bumi Aksara.
- Hodson, D. (2008). *Towards scientific literacy a teachers' guide to the history, philosophy and sociology of science*. Taipei: Sense Publishers Rotterdam.
- Holbrook, J. (1998). *A resource book for teachers of science subjects*. UNESCO.
- Holbrook, J. (2005). Making chemistry teaching relevant. *Chemical Education International*, 6 (1), hlm. 1-12.
- Holbrook, J., dan Rannikmäe, M. (2007). The nature of science education for enhancing scientific literacy. *International Journal of Science Education*, 29 (11), hlm. 1347-1362.
- Holbrook, J., dan Rannikmäe, M. (2009). The meaning of scientific literacy. *International Journal of Environmental & Science Education*, 4 (3), hlm. 275-288.
- Kahana, O., dan Tal, T. (2014). Understanding of high-achieving science students on the nature of science. *International Journal of STEM Education*, (2014) hlm. 1-13.

- Kalaian, S.A, dan Kasim, R.M. (2014). A meta-analytic review of studies of the effectiveness of small-group learning methods on statistics achievement. *Journal of Statistics Education*, 22 (1), hlm. 1-20.
- Kansanen, P., dan Meri, M. (1999). *The didactic relation in the teaching-studying-learning process*. [Online]. Diakses dari [http://www.helsinki.fi/~pkansane/Kansanen\\_Meri.pdf](http://www.helsinki.fi/~pkansane/Kansanen_Meri.pdf)
- Karagiorgi, Y dan Syemeou, L. (2005). Translating constructivism into instructional design: potential and limitation. *Educational Technology and Society*, 8 (1), hlm. 17-27.
- Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, (28), hlm. 563-575.
- Lederman, N.G. (1992). Students' and teachers' conceptions of the nature of science: A review of the research. *Journal of Research in Science Teaching* , 29 (4), hlm. 331-359.
- Lederman, N.G., Abd-El-Khalick, F., Bell, R.L., Schwartz, R.S. (2001). Views of nature of science questionnaire: toward valid and meaningful assessment of learners' conceptions of nature of science. *Journal Of Research In Science Teaching*. 39 (6), hlm 497–521.
- Lederman, N, G. (2006). Research on nature of science: reflections on the past, anticipations of the future. *Illinois Institute of Technology Asia-Pacific Forum on Science Learning and Teaching*, 7(1), hlm. 1-11.
- Masami, M. (2007). *Lesson analysis for sustainability of lesson study*. Hong Kong: WALs.
- Matsubara, K., dan Ikeda, H. (2010). Development of lesson analysis in science and its application for educational cooperation. *New Perspectives in Science Education*, 4, hlm. 1-5.
- McComas, W.F., Clough, M.P., dan Almazroa, H. (1998). *The nature of science in science education*, 3-39. *Kluwer Academic Publishers. Printed in the Netherlands*.

- Michel, H. (2014). Nature of science and science content learning: can NOS instruction help students develop a better understanding of the energy concept?. *Paper Presented At The International Conference of The National Association of Research In Science Teaching (NARST)*. Pittsburgh, Pennsylvania.
- Mozeika, D., dan Bilbokaite, R. (2010). Teaching and learning method for enhancing 15-16 years old students` knowledge as one of scientific literacy aspect in chemistry: results based on research and approbation. *Educational Research Association The International Journal of Educational Researchers*. 3(1), hlm. 1-16.
- Nentwig, P., Parchmann, I., Demuth, R., Gräsel, C., Ralle, B. (2007). Chemie im ontent-from situated learning in relevant contexts to a systematic development of basic chemical concepts. *Journal of Chemical Education*. 84 (9), hlm. 1439-1444
- Niebert, K. dan Gropengiesser, H. (2013). The model of educational reconstruction: A framework for the design of theorybased content specific interventions. The example of climate change. In T. Plomp, & N. Nieveen (Eds.), *Educational design research – Part B: Illustrative cases* (hlm. 511-531). Enschede, the Netherlands: SLO.
- OECD. (2013a). *PISA 2012 Assessment and Analytical Framework Mathematics, Reading, Science, Problem Solving and Financial Literacy*. OECD Publishing.
- OECD. (2013b). *PISA 2015 draft science framework*. OECD Publishing.
- OECD. (2014). *PISA 2012 results: what students know and can do*. OECD Publishing.
- O’Neale,L.G., Maughan.J., Ogunkola, B. (2014). Scientific literacy of undergraduate chemistry students in the University of the West Indies, Barbados: individual and joint contributions of age, sex and level of study. *International Letters of Social and Humanistic Science*, 13, hlm.41-55.
- Panth, M.K., Verma, P., dan Gupta, M. (2015). The role of attitude in environmental awareness of under graduate students. *International Journal of Research in Humanities and Social Studies*, 2(7), hlm. 55-62

Riski Septiadevana, 2016

**PENGEMBANGAN DESAIN DIDAKTIS BERMUATAN NATURE OF SCIENCE PADA TOPIK PARTIKEL MATERI DAN KARAKTERISTIK BAHAN UNTUK MENINGKATKAN LITERASI SAINS PESERTA DIDIK SMP**

Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

- Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia Nomor 65 Tahun 2013 tentang Standar Proses Pendidikan Dasar dan Menengah.
- Plano Clarc, V., Huddleston Casas, C., Churchil, S., Green, D.O., Garret, A. (2008). Mixed methods approaches in family science research. *Journal of Family Issues*, 29 (11), hlm. 1543-1566.
- Prawiradilaga, D.S. (2008). *Prinsip desain pembelajaran*. Jakarta: renada Media Grup.
- Robinson, J. T. (1968). The nature of science and science teaching. *Journal of Research in Science Teaching*, 6 (3), hlm. 295-299.
- Sato, M. (2014). *Dialog dan kolaborasi di Sekolah Menengah Pertama praktik "learning community"*. Tokyo: Pelita.
- Savitri, M. (2016). *Rekonstruksi bahan ajar ipa bermuatan view of nature of science pada topik partikel materi dan karakteristik bahan*. (Tesis). Sekolah Pascasarjana, Universitas Pendidikan Indonesia, Bandung.
- Schwartz, R., Lederman, N., and Crawford, B. (2003). Developing views of nature of science in an authentic context: an explicit approach to bridging the gap between nature of science and scientific inquiry. *Science Teacher Education*. Published online 12 May 2004 in Wiley InterScience, hlm. 610-645.
- Semiawan, C. (2004). *Relevansi kurikulum masa depan dalam membuka masa depan anak-anak kita*. Yogyakarta: Kanisius.
- Smith, P. L., dan Ragan, T. J. (1993). *Instructional design*. New York: MacmillanPublishing Company
- Sterling, D., Pyle, E., Berube, C., Rhoades, E.M., Calhoun, J., Rublein, G., ... Parlo, A., (2010). Scientific inquiry and the nature of science task force report. *Virginia Mathematics and Science Coalition*. [Online]. Diakses dari <http://www.vamsc.org/>
- Suryadi, D. (2010b). *Teori, paradigm, prinsip, dan pendekatan pembelajaran MIPA dalam konteks Indonesia*. Bandung: Jica FPMIPA.

- Suryadi, D. (2010a). Didactical design research (DDR) dalam pengembangan pembelajaran matematika. *Makalah pada Seminar UM Malang*, tidak diterbitkan.
- Thompson, A. G. (1992). Teachers' beliefs and conceptions: A synthesis of the research. In D.A. Grouws (Ed.), *Handbook of research on mathematics teaching and learning* (hlm. 127-146). New York: MacMillan.
- Toharudin, U., Hendrawati, S., Rustaman, A. (2011). *Membangun literasi sains peserta didik*. Bandung: Humaniora.
- Utari, S. (2014). *Desain didaktis berbantuan lesson analysis sebagai refleksi diri guru dalam pembelajaran kimia SMA kelas XI pada konsep jenis-jenis dan sifat koloid*. (Tesis). Sekolah Pascasarjana, Universitas Pendidikan Indonesia, Bandung.
- Wijaya, A.F., C. (2012). *Lesson analysis*. Disajikan pada Pelatihan Fasilitator ToT LS 2012. Bandung: Universitas Pendidikan Indonesia.
- Wilson, F.R., Pan, W., dan Schumsky, D.A. (2012). Recalculation of the critical values for Lawshe's content validity ratio. *Measurement and Evaluation in Counseling and Development*, 45(3), 197-210.
- Wiryanti I., Arnyana IB. P., Ristiati, N.P. (2014). *Pengembangan perangkat pembelajaran biologi berbasis nature of science (NOS) untuk meningkatkan pengetahuan, keterampilan proses sains dan sikap ilmiah peserta didik SMA kelas X*. Program Studi Pendidikan IPA, Program Pascasarjana Universitas Pendidikan Ganesha Singaraja, Indonesia.
- Wright, G.B. (2011). Student-centered learning in higher education. *International Journal of Teaching and Learning in Higher Education*, 23 (2), hlm.92-97.
- Yuhelman, N. (2015). *Desain didaktis pembelajaran kimia sekolah menengah atas berbantuan lesson analysis sebagai self-reflection pada konsep kelarutan dan tetapan hasil kali kelarutan*. (Tesis). Sekolah Pascasarjana, Universitas Pendidikan Indonesia, Bandung.
- Yuniar, G.L., dan Justicia, R. (2016). Teachers' implementation of lesson study to preschoolers. *Prosiding ICTTE FKIP UNS*,1 (1), hlm. 382-388.