

REFERENCES

- Abidin, Yunus. (2014). *Desain Sistem Pembelajaran Dalam Konteks Kurikulum 2013*. Bandung: Refika Aditama
- Affandy, H., Aminah, N. S., & Supriyanto, A. (2019, February). The correlation of character education with critical thinking skills as an important attribute to success in the 21st century. In *Journal of Physics: Conference Series* (Vol. 1153, No. 1, p. 012132). IOP Publishing.
- Al Wadani, F & Khan, A. (2014). Problem-based learning in ophthalmology: A brief review. *Oman J. of Ophthalmology*.
- Arends, R. I. (2008). *Learning to Teach (Belajar untuk Mengajar) Edisi Ketujuh Jilid 2*. Pustaka Belajar, Yogyakarta.
- Arikunto, S., (2012), *Prosedur Penelitian Suatu Pendekatan Praktik*, Rineka Cipta, Jakarta.
- Arikunto, Suharsimi. (2017). *Dasar-Dasar Evaluasi Pendidikan*. Jakarta : Bumi Aksara
- Ary,D., Jacob, L.C. and Sorensen. (2010). *Introduction to Research in Education*. USA : Wadsworth.
- Bell, S. (2010). Project-based Learning for the 21st Century: Skills for the Future. *The Clearing House*. 83(2), 39-43.
- Boangmanalu, Siska dan Manurung, Sondang R., (2018), Pengaruh Model Pembelajaran Berbasis Masalah Terhadap Hasil Belajar Siswa Pada Materi Suhu dan Kalor di Kelas X Semester II SMA Swasta Nusantara Lubuk Pakam T.P. 2016/2017, *Jurnal Inovasi Pembelajaran Fisika (INPAFI)*, 6(4): 70-76.
- Dewey, Jhon. (2009). *Pendidikan Berbasis Pengalaman*. Jakarta: PT Indonesia Publishing.
- Mulyasa, E. (2006). *Kurikulum Berbasis Kompetensi*: Bandung: Remaja Rosda Karya
- Direktorat Pembinaan, S. M. A. (2015). *Penyusunan Soal Higher Order Thinking Skill's Sekolah Menengah Atas*.
- Ennis, R. H. (1996). *Critical Thinking*. University of Illinois. Prentice Hall, Inc. Upper Saddle River, New Jersey 07458.
- Filsaime. D. K. (2008). *Menguak Rahasia Berpikir Kritis dan Kreatif*. Jakarta: Prestasi Pustakarya.

- Ganiron Jr, T. U. (2014). The impact of higher level thinking on students' achievement toward project management course. *International Journal of u-and e-Service, Science and Technology*, 7(3), 217-226.
- Giancoli, D.C. (2014). *Physics: Principle with Applications* 7th Ed. University of California, Pearson Education.
- Gikas, Joanne. Grant, Michael. (2013). Mobile Computing Devices In Higher Education : Student Perspective On Learning With Cellphones, Smartphones And Social Media. *The Internet And Higher Education*. 19 : 18-26
- Gunawan, dkk. (2014). Penggunaan Multimedia Interaktif dalam Pembelajaran Fisika dan Implikasinya pada Penguasaan Konsep Mahasiswa. *Jurnal Pijar MIPA*, Vol. IX No.1, hal: 15 - 19.
- Hake, R. R. (1998). Interactive-engagement versus traditional methods: A six-thousand-student survey of mechanics test data for introductory physics courses. Department of Physics, Indiana University, Bloomington.
- Halliday and Resnick, (2011). *Fundamental of Physics*, United States of America, John Wiley & Sons, Inc.
- Harris. R. (1998). *Introduction to Creative Thinking*.
- Hayati. (2016). Efektivitas *Student Worksheet* Berbasis *Project Based Learning* Dalam Menumbuhkan Kemampuan Berpikir Kritis Siswa Pada Mata Pelajaran Geografi. *Jurnal Pendidikan*, 1(3): 468-474.
- Islamiah, A. F., Rahayu, S., & Verawati, N. N. S. P. (2018). Efektivitas Model Pembelajaran Problem Based Learning Berbantuan LKS Terhadap Kemampuan Berpikir Kritis Fisika Siswa SMAN 1 Lingsar Tahun Ajaran 2016/2017. *Lensa: Jurnal Kependidikan Fisika*, 6(1), 29-36.
- Jailani, J., Sugiman, S., & Apino, E. (2017). Implementing the problem-based learning in order to improve the students' HOTS and characters. *Jurnal Riset Pendidikan Matematika*, 4(2), 247-259.
- Kielstra, P., & Mosavi, S. (2014). The learning curve: education and skills for life.
- Khoiriyah, I., Rosidin, U. & Suana, W. (2015). Perbandingan hasil belajar menggunakan phet simulation dan kit optika melalui inkuiri terbimbing. *Jurnal Pembelajaran Fisika*, 3 (5):97-107.
- Kielstra, P., & Mosavi, S. (2014). The learning curve: education and skills for life.

- Law, A.M., & Kelton W.D. (1991). *Simulation Modeling and Analysis*. New York : Mc.Graw-Hill.
- Liliasari. (2011). *Membangun Masyarakat Melek Sains Berkarakter Bangsa Melalui Pembelajaran Makalah Seminar Nasional Unnes tahun 2011*
- Marina, L. M., dan Halpern, D. F., (2010), Pedagogy for Developing Critical Thinking in Adolescents: Explicit Instruction Produces Greatest Gains, *Thinking Skills and Creativity*, 6(11): 1-13.
- Meador, K. S. (1997). *Creative Thinking and Problem Solving for Young Learners.pdf*. Colorado: Teacher Ideas Press.
- Munandar, U. (2009). *Pengembangan Bakat Kreativitas Sekolah*. Jakarta: Rineka Cipta
- Ngalimun. (2014). *Strategi dan Model Pembelajaran*. Yogyakarta: Aswaja Pressindo
- Niami, Khairun, Kosim Kosim, and Gunawan Gunawan. (2018). "Model Problem Based Learning Berbantuan Simulasi Komputer Untuk Meningkatkan Penguasaan Konsep Pada Materi Alat-Alat Optik." *Jurnal Pendidikan Fisika dan Teknologi* 4.2: 220-225.
- Omadara & Adu. (2014). Relevance of Educational Media and Multimedia Technology for Effective Service Delivery in Teaching and Learning Processes. *IOSR Journal of Research & Method in Education*. 4(2) : 48-51
- Perkins, K. et al. (2006). PhET: Interactive Simulations for Teaching and Learning Physics. *The Physics Teacher*, 44(18):18- 23
- Ramos, J. L., Dolipas, B., & Villamor, B. (2013). Higher Order Thinking Skills and Academic Performance in Physics of College Students: A Regression Analysis. *International Journal of Innovative Interdisciplinary Resaerch* , 48-60
- Rajanami, P., (2017), *Pengaruh Model Pembelajaran Problem Based Learning (PBL) dengan Media Mind Mapping terhadap Kemampuan Berpikir Kritis dan Hasil Belajar Kimia Siswa pada Materi Pokok Larutan Penyangga di SMA.*, Skripsi, FMIPA, Unimed, Medan.
- Sanjaya, W., (2006), *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*, Prenada Media Group, Jakarta.
- Setyorini, U., Sukiswo, S., dan Subali, B., (2011), Penerapan Model *Problem Based Learning* untuk Meningkatkan Kemampuan Berpikir Kritis Siswa SMP, *Jurnal Pendidikan Fisika Indonesia*, 7(11): 52-56.

- Slameto. (2003). *Belajar dan Faktor-Faktor yang Mempengaruhinya*. Jakarta : Rineka Cipta
- Sudjana, M. A., (2005), *Metoda Statistika*. Bandung: Tarsito.
- Sugiyono. (2015). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta
- Suprihatiningrum, J. (2016). *Strategi Pembelajaran Teori dan Aplikasi*. Yogyakarta: AR-Ruzz Media
- Surip, Muhammad. (2017). *Berpikir Kritis. Analisis Kajian Filsafat Ilmu*. Medan: Halaman Moeka.
- Surya, E., & Syahputra, E. (2017). Improving High-Level Thinking Skills by Development of Learning PBL Approach on the Learning Mathematics for Senior High School Students. *International Education Studies*, 10(8), 12-20.
- Trianto. (2011). *Mendesain Model Pembelajaran Inovatif-Progresif*. Jakarta : Kencana.
- Ulger, Kani. (2018). The Effect of Problem Based Learning on The Creative Thinking and Critical Thinking Disposition of Students in Visual Arts Education. *Interdisciplinary Journal of Problem Based Learning*. 12(1): 1-20
- Winataputra, U. S. (1999). *Strategi Belajar Mengajar Matematika*. Universitas Terbuka : Jakarta.
- Wirkala, C., & Kuhn, D. (2011). Problem-based learning in K–12 education: Is it effective and how does it achieve its effects?. *American Educational Research Journal*, 48(5), 1157-1186.
- Yen, T. S., & Halili, S. H. (2015). Effective teaching of higher order thinking (HOT) in education. *The Online Journal of Distance Education and e-Learning*, 3(2), 41-47.
- Yosiwita, Dewi Fertika dkk. (2013). Pengaruh Model Pembelajaran Problem Based Learning (PBL) Terhadap Kemampuan Berpikir Kritis Siswa. *Jurnal Ilmu Pendidikan*.
- Zhou, Q. Huang, & H. Tian. (2013). *Developing Student's Critical Thinking Skills by Tasked Based Learning in Chemistry Experiment Teaching*. *Journal of Creative Education*. 4(2) : 40-45