

DAFTAR PUSTAKA

- Akin, A., & Kurbanoglu, I. N. (2011). The relationships between math anxiety, math attitudes, and self-efficacy: A structural equation model. *Studia Psychologica*, 53(3), 263–273.
- Aljaberi, N. M. (2014). Pre-service elementary school teachers' level of mathematical thinking and their attitudes toward mathematics. *Journal of Education and Human Development*, 3(3), 181–195.
- Allen, M. J., & Yen, W. M. (1979). *Introduction to measurement theory*. Illinois, AS: Waveland Press.
- Arends, R. I., & Kilcher, A. (2010). *Teaching for student learning: Becoming an accomplished teacher. Teaching for Student Learning: Becoming an Accomplished Teacher*. Abingdon, Britania Raya: Routledge.
- Aronis, A. (2016). Studying the positive influence of the use of video in teaching & learning environments , focusing on registration of the directions where it improves the PBL effectiveness : A systematic literature review. *Themes in Science & Technology Education*, 9(1), 59–77.
- Arsyad, A. (2017). *Media Pembelajaran*. Jakarta: PT. Raja Grafindo Persada.
- Azer, S. A., Peterson, R. A. Y., Guerrero, A. P. S., & Edgren, G. (2012). Twelve tips for constructing problem-based learning cases. *Medical teacher*, 34(5), 361–367. <https://doi.org/10.3109/0142159X.2011.613500>
- Azwar, S. (2010). *Tes prestasi: fungsi dan pengembangan pengukuran prestasi belajar (edisi ke-2)*. Yogyakarta: Pustaka belajar.
- Barrett, T., Cashman, Di., & Moore, S. (2011). Designing problems and triggers in different media: Challenging all students. In T. Barrett & S. Moore (Ed.), *New approaches to Problem-based learning: Revitalising your practice in higher education* (hal. 18–35). New York, NY: Routledge.
- Bassham, G., Irwin, W., Nardone, H., & Wallace, J. M. (2013). *Critical thinking: A student's introduction* (5th ed.). New York, NY: McGraw-Hill Education.
- Basu Roy, R., & McMahan, G. T. (2012). Video-based cases disrupt deep critical thinking in problem-based learning. *Medical education*, 46(4), 426–435.
- Benken, B. M., Ramirez, J., Li, X., Wetendorf, S., Benken, B. B. M., Ramirez, J., ... Ramirez, J. (2019). Developmental mathematics success : Impact of students ' knowledge and attitudes. *Journal of developmental education*, 38(2), 14–31.

- Birgili, B. (2015). Creative and Critical Thinking Skills in Problem-based Learning Environments. *Journal of Gifted Education and Creativity*, 2(2), 71–80.
- Boss, J. A. (2017). *ThiNK: Critical thinking and logic skills for everyday life* (4th ed.). New York, NY: McGraw-Hill Education.
- Botty, H. M. R. H., Taha, H. Z. H. M., Shahrill, M., & Mahadi, M. A. (2015). Connecting Students' Achievements with Attitudes, the Teachings and Study Habits. *Mediterranean Journal of Social Sciences*, 6(4), 113–119. <https://doi.org/10.5901/mjss.2015.v6n4s1p113>
- Brame, C. J. (2016). Effective Educational Videos : Principles and Guidelines for Maximizing Student Learning from Video Content. *CBE Life Sciences Education*, 15(6), 1–6. <https://doi.org/10.1187/cbe.16-03-0125>
- Carmichael, M., Reid, A.-K., & Karpicke, J. D. (n.d.). *Assessing the Impact of Educational Video on Student Engagement, Critical Thinking and Learning: The Current State of Play*. California, AS: Sage Publishing. Diambil dari www.sagepublishing.com
- Chan, L. K., Patil, N. G., Chen, J. Y., Lam, J. C. M., Lau, C. S., & Mary, S. (2010). Advantages of video trigger in problem-based learning. *Medical teacher*, 32, 760–765. <https://doi.org/10.3109/01421591003686260>
- Chandra, F. H., & Nugroho, Y. W. (2016). Peran teknologi video dalam flipped classroom. *Dinamika teknologi: Jurnal ilmiah teknologi dan rekayasa*, 8(1), 15–20.
- Choi, H. J., & Johnson, S. D. (2007). The effect of problem-based video instruction on learner satisfaction, comprehension and retention in college courses. *British Journal of Educational Technology*, 38(5), 885–895. <https://doi.org/10.1111/j.1467-8535.2006.00676.x>
- Chukwuyenum, A. N. (2013). Impact of Critical thinking on Performance in Mathematics among Senior Secondary School Students in Lagos State. *IOSR Journal of Research & Method in Education*, 3(5), 2320–7388. Diambil dari www.iosrjournals.org
- Cooper, D., & Higgins, S. (2015). The effectiveness of online instructional videos in the acquisition and demonstration of cognitive, affective and psychomotor rehabilitation skills. *British Journal of Educational Technology*, 46(4), 768 - 779. <https://doi.org/10.1111/bjet.12166>
- Davidson, N., & Major, C. H. (2014). Boundary Crossings : Cooperative Learning , Collaborative Learning , and Problem-Based Learning. *Journal on*

Excellence in College Teaching, 25(3&4), 7–55.

- de Koning, B. B., Hoogerheide, V., & Boucheix, J. M. (2018). Developments and Trends in Learning with Instructional Video. *Computers in Human Behavior*, 89, 395–398. <https://doi.org/10.1016/j.chb.2018.08.055>
- Dewi, E. R. (2018). Perbandingan efektivitas problem-based learning dan case-based learning pada pembelajaran matematika SMP ditinjau dari prestasi belajar, kemampuan koneksi matematika, dan sikap matematika siswa, tidak diterbitkan. *Tesis*. Universitas Negeri Yogyakarta, Yogyakarta.
- Dilley, A., Kaufman, J. C., Kennedy, C., & Plucker, J. A. (2011). P21 4Cs Research Brief Series - Critical Thinking. *Encyclopedia of Creativity*, 1–18. <https://doi.org/10.1016/B978-0-12-375038-9.00057-1>
- Direktorat Tenaga Kependidikan. (2008). Kriteria dan indikator keberhasilan pembelajaran. Jakarta: Departemen Pendidikan Nasional
- Dwyer, C. P., Hogan, M. J., & Stewart, I. (2014). An integrated critical thinking framework for the 21st century. *Thinking Skills and Creativity*, 12, 43–52. <https://doi.org/10.1016/j.tsc.2013.12.004>
- Ennis, R. H. (1985). A logical basis for measuring critical thinking skills. *Educational leadership*, 43(2), 44-48.
- Fitriyani, H., & Khasanah, U. (2017). Student ' s rigorous mathematical thinking based on cognitive style. *Journal of physics: Conference series*, 943, 0–6. <https://doi.org/doi :10.1088/1742-6596/943/1/012055>
- Fong, A. C. J., Kim, Y., Davis, C. W., Hoang, T., Kim, Y. W., & Kim, Y. W. (2017). A Meta-Analysis on Critical Thinking and Community College Student Achievement. *Thinking Skills and Creativity*. <https://doi.org/10.1016/j.tsc.2017.06.002>
- Global Digital Report retrieved from <https://wearesocial.com/blog/2018/01/global-digital-report-2018>
- Grabowski, B., Kim, Y., & Koszalka, T. (2004). Toward a Model for Web-enhanced Problem-based Learning. In O.Tan (Ed.), *Enhancing Thinking through Problem-based Learning Approaches* (hal. 210). Singapore: Thomson learning.
- Halpern, D. F. (2014). *Thought and knowledge: An introduction to critical thinking* (5th ed.). New York, NY: Psychology Press.
- Herreid, C. F., Schiller, N. A., & Herreid, K. F. (2012). *Science Stories : Using case*

studies to teach critical thinking. Arlington, VA: NSTA Press.

Higgins, K., Angelo, J. H., & Crawford, L. (2017). Effects of Technology in Mathematics on Achievement , Motivation , and Attitude : A Meta-Analysis. *Journal of Educational Computing Research*, 0(0), 1–37. <https://doi.org/10.1177/0735633117748416>

Hmelo-silver, C. E., & Eberbach, C. (2012). Learning Theories and Problem-Based Learning, 3–17. <https://doi.org/10.1007/978-94-007-2515-7>

Hmelo-silver, C. E., Jung, J., Lajoie, S., Yu, Y., Lu, J., Wiseman, J., & Chan, L. K. (2016). Video as Context and Conduit for Problem- Based Learning, 57–77. <https://doi.org/10.1007/978-3-319-08275-2>

IBM Knowledge Centre. (n.d.). *KMO and Bartlett's Test*. Retrieved from https://www.ibm.com/support/knowledgecenter/SSLVMB_24.0.0/spss/tutorials/fac_telco_kmo_01.html

Isoda, M., & Katagiri, shigeo. (2012). *Mathematical thinking: How to develop it in the classroom*. Singapore: World Scientific.

Johnson, R.A. & Wichern, D.W. (2007). *Applied multivariate statistical analysis*. Boston: Pearson Prentice Hall

Jonassen, D. H., & Hung, W. (2015). All problems are not equal: Implications for problem-based learning. In A. Walker, H. Leary, C. E. Hmelo-Silver, & P. A. Ertmer (Ed.), *Essential readings in problem based learning* (hal. 17–42). West Lafayette, Indiana, AS: Purdue University Press.

Kadir. (2015). *Statistika Terapan: Konsep, contoh, dan analisis data dengan program SPSS/ Lisrel dalam penelitian*. Jakarta: Raja Grafindo Persada

Kamin, C., O'sullivan, P., Deterding, R., & Younger, M. (2003). A comparison of critical thinking in groups of third-year medical students in text, video, and virtual PBL case modalities. *Academic medicine*, 78(2), 204-211.

Karakoc, M. (2016). The Significance of Critical Thinking Ability in terms of Education. *International Journal of Humanities and Social Science*, 6(7), 81–84.

Kwan, Y. W., & Wong, A. F. L. (2015). Effects of the constructivist learning environment on students ' critical thinking ability : Cognitive and motivational variables as mediators. *International Journal of Educational Research*, 70, 68–79. <https://doi.org/10.1016/j.ijer.2015.02.006>

Lai, E. R. (2011). *Critical Thinking: A Literature Review. Research Report*.

- List, A. (2018). Strategies for comprehending and integrating texts and videos. *Learning and Instruction*, 57(January), 34–46. <https://doi.org/10.1016/j.learninstruc.2018.01.008>
- Lu, J., & Chan, L. K. (2015). Differ in Socio-Cognitive Processes? Some Comparisons Between Paper and Video Triggered PBL. *The Interdisciplinary Journal of Problem-based Learning*, 9(2), 2–4.
- Marra, R. M., Jonassen, D. H., & Palmer, B. (2014). Why Problem-Based Learning Works : Theoretical Foundations. *Journal on Excellence in College Teaching*, 25(3&4), 221–238.
- Marsigit. (2012). Philosophy of Mathematics Education. Retrieved from: http://www.academia.edu/1809148/Philosophy_of_Mathematics_Education_by_Marsigit
- Marwan, M., & Ikhsan, M. (2016). Meningkatkan kemampuan berpikir kritis matematis siswa SMK melalui model pembelajaran berbasis masalah. *Jurnal Didaktik Matematika*, 3(2).
- Merkt, M., Weigand, S., Heier, A., & Schwan, S. (2011). Learning with videos vs. learning with print: The role of interactive features. *Learning and Instruction*, 21(6), 687-704.
- Moallem, M. (2019). Effects of PBL on learning outcomes, knowledge acquisition, and Higher-Order Thinking Skills. In M. Moallem, W. Hung, & N. Dabbagh (Ed.), *The Wiley Handbook of Problem-Based Learning* (1st ed., hal. 107–134). USA: John Wiley & Sons, Inc.
- Moore, B. N., & Parker, R. (2015). *Critical Thinking* (11th ed.). New York: McGraw-Hill Education.
- Nasrullah, A., & Marsigit, M. (2016). The Effectiveness of Problem Posing and Problem Solving in Terms of Basic Competence Attainment , Mathematical Method , and Mathematical Attitude. *Pythagoras: Jurnal Pendidikan Matematika*, 11(2), 123–135.
- Nitko, A. J. & Brookhart, S. M. (2011). *Educational assessment of students (6th ed.)*. USA: Pearson.
- Pecore, J. L. (2013). Beyond Beliefs : Teachers Adapting Problem-based Learning to Preexisting Systems of Practice. *Interdisciplinary Journal of Problem-Based Learning*, 7(2), 9–26.
- Permendikbud No. 24 Tahun 2016 tentang Kompetensi Inti dan Kompetensi Dasar

Permendikbud No. 58 Tahun 2014 tentang Kurikulum SMP

Pierce, J. W., & Jones, B. F. (1998). Problem-based learning: Learning and teaching in the context of problems. *Contextual teaching and learning: Preparing Teachers to enhance student success in and beyond school*, 75-106.

Pritchard, A., & Woollard, J. (2010). *Psychology for the classroom: constructivism and social learning*. London, UK: Routledge

Purwanti, B. (2015). Pengembangan Media Video Pembelajaran Matematika dengan Model Assure. *Jurnal Kebijakan dan Pengembangan Pendidikan*, 3(1), 42–47.

Purwanto, Y., & Rizki, S. (2015). Pengembangan bahan ajar berbasis kontekstual Pada materi himpunan berbantu video pembelajaran. *Aksioma: Jurnal Pendidikan Matematika FKIP Universitas Muhammadiyah Metro*, 4(1), 67–77.

Putra, P. D. A., & Sudarti, S. (2015). Real life video evaluation dengan sistem e-learning untuk meningkatkan keterampilan berpikir kritis mahasiswa. *Jurnal Kependidikan: Penelitian Inovasi Pembelajaran*, 45(1).

Rasi, P. M., & Poikela, S. (2016). A Review of Video Triggers and Video Production in Higher Education and Continuing Education PBL Settings. *Interdisciplinary Journal of Problem-Based Learning*, 10(1), 5–6. <https://doi.org/10.7771/1541-5015.1609>

Riyana, C. (2007). *Pedoman Pengembangan Media Video*. Jakarta: P3AI UPI

Sanjaya, W. (2006). *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Kencana Prenadamedia Group.

Savery, J. R. (2006). Overview of problem-based learning: Definitions and distinctions origins of PBL. *Interdisciplinary Journal of Problem-Based Learning*, 1(1), 9–20. Diambil dari <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.470.2497>

Schmidt, H. G., Rotgans, J. I., & Yew, E. H. (2011). The process of problem-based learning : what works and why. *Medical Education*, 45, 792–806.

Schunk, D. H. (2012). *Learning theories an educational perspective (6th Ed)*. London, UK: Pearson.

Seidel, T., Blomberg, G., & Renkl, A. (2013). Instructional strategies for using video in teacher education. *Teaching and Teacher Education*, 34, 56–65.

<https://doi.org/10.1016/j.tate.2013.03.004>

- Skoretz, Y. M., & Cottle, A. E. (2011). Meeting International Society for Technology in Education Competencies with a Problem-Based Learning Video Framework. *Computers in the Schools*, 28, 217–227. <https://doi.org/10.1080/07380569.2011.594990>
- Soedjadi, R. (2007). *Masalah Kontekstual Sebagai Batu Sendi Matematika Sekolah*. Surabaya: Pusat Sains dan Matematika Sekolah UNESA.
- Taylor, L. (1993). Mathematical attitude development from a Vygotskian perspective. *Mathematics Education Research Journal*, 4(3), 8-23.
- Temel, S. (2014). The effects of problem-based learning on pre-service teachers ' critical thinking dispositions and perceptions of problem-solving ability. *South African Journal of Education*, 34(1), 1–20.
- Vandecandelaere, M., Speybroeck, S., Vanlaar, G., Fraine, B. De, & Damme, J. Van. (2012). Studies in Educational Evaluation Learning environment and students ' mathematics attitude. *Studies in Educational Evaluation*, 38(3–4), 107–120. <https://doi.org/10.1016/j.stueduc.2012.09.001>
- Walpole, R. E. (1995). *Pengantar Statistika*. Jakarta: PT Gramedia Pustaka Utama
- Widoyoko, E. P. (2012). *Teknik penyusunan instrumen penelitian*. Yogyakarta: Pustaka Pelajar.
- Widyatiningtyas, R., Kusumah, Y. S., Sumarmo, U., & Sabandar, J. (2015). The impact of problem-based learning approach to senior high school students ' mathematics critical thinking ability. *IndoMS-JME*, 6, 30–38.
- Widjajanti, D. B. (2011). *Problem-Based Learning dan Contoh Aplikasinya*. Yogyakarta: FMIPA UNY.
- Wijaya, A., Heuvel-panhuizen, M. Van Den, & Doorman, M. (2014). Difficulties in solving context-based PISA mathematics tasks : An analysis of students ' errors. *The Mathematics Enthusias*, 11(3), 555–584.
- Yew, E. H., & O'Grady, G. (2012). One-Day, One-Problem at Republic Polytechnic. In G. O'Grady, E. H. J. Yew, K. P. . Goh, & H. G. Schmidt (Ed.), *One-Day, One-Problem: An Approach to Problem-based Learning* (hal. 3–20). Singapore: Springer.
- Zaenal, A. (2012). Pengembangan Media Video Pembelajaran IPA tentang Kemagnetan pada kelas IX SMPN 1 Mojowarno Jombang, tidak diterbitkan. *Tesis*.