

DAFTAR PUSTAKA

- Abrahams, I. (2009). Does Practical Work Really Motivate ? A study of the Affective Value of Practical work in Secondary School Science. *Science Education*. doi: 10.1080/09500690802342836
- Abrahams, I., & Millar, R. (2008). Does Practical Work Really Work ? A Study of the Effectiveness of Practical Work as a Teaching and Learning Method in School Science. *Science Education*. doi: 10.1080/09500690701749305
- Abrahams, I., Reiss, M. J., & sharpe, R. M. (2013). The Assessment of Practical Work in School Science. *Science Education*. doi: 10.1080/03057267.2013.858496
- Abrahams, I., & Saglam, M. (2010). A Study of Teachers' View on Practical Work in Secondary Schools in England and Wales. *International Journal of Science Education*, 32(6), 753-768. Doi: 10.1080/09500690902777410
- Arikunto, S. (2013). *Dasar-Dasar Evaluasi Pendidikan Edisi 2*. Jakarta: Bumi aksara.
- Azalia, H. (2015). *Beban Kognitif Siswa SMA pada Kegiatan Praktikum Sistem Eksresi menggunakan Pedoman Praktikum yang dilengkapi Ilustrasi*. (Skripsi). Bandung: Departemen Pendidikan Biologi, Universitas Pendidikan Indonesia, Bandung
- Bennett, J. (2010). Practical Work at the Upper High School Level: the Evaluation of A New Model of Assessment. *Science Education*, 23(1), 97-110. doi: 10.1080/09500690119244
- Bosman, A., & Schulze, S. (2018). Learning Style Preference and Mathematics Achievement of Sceondary School Learners. *South African Journal of Education*, 38(1). doi: 10.15700/saje.v38n1a1440
- Brunkens, R., Plass, J. L., & Leutner, D. (2003). Measuring of Cognitive Load in Multimedia Learning. *Educational Psychologist*, 38(1), 53-61.
- Brunkens, R., Seufert, T., & Paas, F. (2010). Measuring Cognitive Load.
- Cakiroglu, U., & Aksoy, D. A. (2016). Exploring Extraneous Cognitive Load in an Instructional Process Via the Web Conferencing System. *Behaviour and Information Technology*. Doi: 10.1080/0144929X.2016.1276964
- Campbell, N. A., Reece, J. B., Urry, L. A., Cain, M. L., Wasserman, S. A., Minorsky, P. V., & Jackson, R. B. (2008). *Biologi Edisi Kedelapan Jilid 2*. Jakarta: Erlangga.

- Cho, Y. H., & Jonassen, D. H. (2012). Learning by Self-Explaining Casual Diagrams in High-School Biology. 13(1). doi: 10.1007/s112564-011-9187-4
- Cimer, A. (2011). What Makes Biology Learning Difficult and Effective; Student's View. *Educational Research*, 7(3). doi: 10.5897/ERR11.205
- Creswell, J. W. (2009). Research Design; Qualitative, Quantitative, and Mixed Methods Approaches Third Edition. London:SAGE Publication
- Cromley, J., G., Hogan, L., E., S., Dubas, V., A., L. (2010). Cognitive Activities in Complex Science Text and Diagram. *Contemporary Educational Psychology*.
- Cronquist, A. (1981). An Integrated System of Classification of Flowering Plants
- Csapo, N., & Hayen, R. (2006). The Role of Learning Styles in the Teaching/Learning Process. *Information Systems*, 7(1).
- Ferreira, S., & Moraes, A. M. (2013). Conceptual Demand of Practical Work in Science Curricula A Methodological approach. *Research Science Education*. doi:10.1007/s11165-013-9377-7
- Fleming, N. D. (1995). I'm Different; not Dumb Modes of Presentation (V.A.R.K) in the Tertiary Classroom. *Research and Development in Higher Education*, 18.
- Fleming, N. D., & Baume, D. (2006). Learning Style Again; VARKing up the Right Tree. *Educational Development* (7.4).
- Garnarsih, T., Hidayat, T., & Rahmat, A. (2015). Menurunkan Beban Kognitif Intrinsik Siswa MA dalam Pembelajaran Klasifikasi Spermatophyta menggunakan Tayangan Video Keanekaragaman Tumbuhan. *Seminar Nasional XII Pendidikan Biologi FKIP UNS*.
- Gilakjani, A. P. (2012). Visual, Auditory, Kinaesthetic Learning Styles and their Impacts on English Language Teaching. *Journal of studied in Education*, 2(1). Doi:10.5296/jse/v2i1.1007
- Gott, R., & Duggan, S. (2007). Practical Work : its a Role in the Understanding of Evidence in Science. *Science Education*. doi:10.1080/0950069960180705
- Haslam, C. Y., & Hamilton, R. J. (2010). Investigating the Use of Integrated Instructions to Reduce the Cognitive Load Associated

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

- with Doing Practical Work in Secondary School Science. *International Journal of Science Education*, 32(13), 1715–1737. <https://doi.org/10.1080/09500690903183741>
- Hernandez-Torran, D., ali, S., & Chan, C. -K. (2017). First Year Medical Students; Learning Style Preferences and their Correlation with Performance in Different Subjects within the Medical Course. *BMC Medical Education*, 17. Doi:10.1186/s12909-017-0965-5
- Hockley, W., E. (2008). The Picture Superiority Effect in Associative Recognition. *Memory and Cognition*.
- Ivanova, O. O., & Pavlovych, A. V. (2016). VARK Learning Styles in Vocabulary Teaching.
- Jona, J. (2014). Visual Learning: The Pros and Cons. *Daily Post*.
- Jong, T. D. (2009). Cognitive Load Theory, Educational Research, and Instructional Design : Some Food for Thought. Doi:10.1007/s11251-009-9110-0
- Kalyuga, S. (2011). Cognitive load Theory; How Many Types of Load Does it Really Need. *Education Psychichology*. Doi:10.1007/s10648-010-9150-7
- Kapenda, H. M., Kandjeo-Marenga, H. U., Kasandra, C. D., & Lubben, F. (2010). Characteristic of Practical Work in Science Classroom in Namibia. *Research in Science and Technological Education*. doi:10.1080/02635140220130920
- Kemendikbud. (2016). Permendikbud Nomor 24 Tahun 2016 tentang KI dan KD Kurikulum 2013 pada Pendidikan Dasar dan Menengah. In K. P. D. Kenudayaan (Ed.), *Lampiran 07-biologi-SMA*. Jakarta.
- Kumar, L. R., Voralu, K., Pani, S. P., & Sethuraman, K. R. (2009). Predominant Learning Styles Adopted by Aimst University Student in Malaysia. 3(1).
- Lodge, J. M., Hansen, L., & Cottrell, D. (2015). Modality Preference and Learning Style Theories : Rethinking the role of Sensory Modality in Learning. *Learning : Research and Practice*. Doi:10.1080/23735082.2015.1083115
- Lujan, H. L., & Carlo, S. E. D. (2005). First-Year Medical Students Prefer Multiple Learning Styles. *Physiol Educ*, 30, 13-16. Doi:10.1152/advan.00045.2005

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

- Marcy, V. (2001). How the VARK Learning Style Inventory can be Used to Improve Student Learning. 12(2).
- Marzano, R. J., Tighe, J. M., & Pickering, D. (1993). Assessing Student Outcomes: Performance Assessment for Supervision and Curriculum Development Alexandria.
- Mayer, R. E., & Moreno, R. (2010). Nine Ways to Reduce Cognitive Load in Multimedia Learning. *Educational Psychologist*. Doi:10.1207/S15326985EP3801_6.
- Meissner, B., Bogner, F. (2013). Towards Cognitive Load Theory as Guidline for Instructional Design in Science Education. *World Journal Education*. Doi: 10.5430/wje.v3n2p24
- Muksin, S. N. A. (2017). *Representasi Mental Siswa berdasarkan Gaya Belajar dalam membaca Gambar setelah Pembelajaran sistem Pertahanan Tubuh dengan Pendekatan VARK*. (Skripsi). Bandung: Departemen Pendidikan Biologi, Universitas Pendidikan Indonesia, Bandung
- Munandar, R. R., Rahmat, A., & Hidayat, T. (2015). The Effectiveness of Learning Two Stay Two stray to Reduce Cognitive Load Accordance Student Learning Styles.
- Othman, N., & Amiruddin, M. H. (2010). Different Perspectives of Learning styles from VARK Model. doi:10.1016/j.sbspro.2010.10.088
- Paas, F., Gerven, P., W., M., V., Tuovinen, J. (2003). Cognitive Load Measurement as a Means to Advance Cognitive Load Theory. *Educational Psychologist*. DOI: 10.1207/S15326985EP3801_8.
- Pallant, Julie. (2007). *SPSS Survival Manual*. Australia: Ligare Book Printer, Sydney.
- Paivio, A. (1990). *Mental Representations: A Dual Coding Approach*. New York: Oxford University Press.
- Peyman, H., Sadeghifar, J., Khajavikhan, J., Yasemi, M., Rasool, M., Yaghoubi, Y. M., . . . Karim, H. (2014). Using VARK Approach for Assessing Preferred Learning styles of First Year Medical Sciences Students: A Survey from Iran. 8(8). doi:10.7860/JCDR/2014/8089.4667
- Prajayanti, S. S. R., Rahmat, A., & Hidayat, T. (2015). Didactical Reduction of Teaching Materials of Spermatophytes to Make

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perpustakaan.upi.edu

- Easier on Information Processing and to Reduce Mental Effort of Senior High School student. *Seminar Nasional XII Pendidikan Biologi FKIP UNS*.
- Rahmat, A., Azalia, H., Nuraeni, E., & Raksabarata, M. R. (2015). Perbedaan Beban Kognitif Siswa dalam mengeksplorasi Pengetahuan Deklaratif dan Prosedural pada Pembelajaran Biologi Berbantuan Media Visual. *Prosiding Semnas Sains dan Entrepreneurship II*. (hlm. 308-313).
- Rahmat, A., & Hidayat, T. (2015). Penggunaan Framing pada Praktikum Klasifikasi Tumbuhan untuk Mempermudah Information Processing dan Menurunkan Usaha Mental Siswa SMA. *Prosiding Semnas Sains dan Entrepreneurship II*. Bandung: Universitas Pendidikan Indonesia
- Rahmat, A., & Hidayat, T. (2015). Penggunaan Framing pada Praktikum Klasifikasi Tumbuhan untuk Menurunkan Beban Kognitif Siswa SMA. *Seminar Nasional XII Pendidikan Biologi FKIP UNS*.
- Rahmat, A., & Hidayat, T. (2015). Perbandingan Kemampuan Memproses Informasi dengan Usaha Mental Siswa dalam Pembelajaran Biologi di SMA dan MAN Kabupaten Sumedang. *Prosiding Semnas Sains dan Entrepreneurship II*. (hlm. 356-359).
- Rahmat, A., Adriani, M., & Hidayat, T. (2015). Kemampuan Penalaran Siswa SMA pada Pembelajaran Klasifikasi Tumbuhan dengan dan Tanpa Praktikum Virtual. *Seminar Nasional XII Pendidikan Biologi FKIP UNS*. Bandung: Universitas Pendidikan Indonesia
- Rahmat, A., & Hindriana, A. F. (2014). Beban Kognitif Mahasiswa dalam Pembelajaran Fungsi Terintegrasi Struktur Tumbuhan Berbasis Dimensi Belajar. *Jurnal Ilmu Pendidikan*, 20(1), 66-74.
- Ramadhan, F., Rahmat, A., Nuareni, E. (2017). Teaching Styles and Mental Representation of Teachers in Biology Learning using Convention Picture. *International Journal of Science and applied Science*. DOI: 10.20961/ijssacs.v21l.16690
- Ruha, L. (2018). what are the Pros and cons of Auditory Learning ? <http://www.wisegeek.com/what-are-the-pros-and-cons-of-auditory-learning.htm#comments> Retrieved from <http://www.wisegeek.com/what-are-the-pros-and-cons-of-auditory-learning.htm#comments>

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- Septiana, R. (2015). *Mengurangi Beban Kognitif Siswa SMA menggunakan Framing pada Kegiatan Praktikum Klasifikasi Tumbuhan berdasarkan Gaya Belajar.* (Tesis). Bandung: Program Studi Pendidikan Biologi, Sekolah Pascasarjana, Universitas Pendidikan Indonesia, Bandung
- Shah, K., Ahmed, J., Shenoy, N., & N, S. (2013). How Different are Students and their Learning Styles ? , 1(3), 212-215. doi:10.5455/2320-6012.ijrms20130808
- Stirling, B. V. (2017). Results of a Study Assessing Teaching Methods of Faculty after measuring Student Learning Style Preference. *Nurse Education Today.* doi:10.1016/j.nedt.2017.05.012
- Sulistyorini, A. (2009). *Biologi I untuk Sekolah Menengah Atas/Madrasah aliyah Kelas X Hadiat* (Ed.)
- Sugiyono. (2007). *Statistika untuk Penelitian.* Bandung: Alfabeta.
- Sweller, J. (1988). Cognitive Load during Problem Solving: Effects on Learning. *Cognitive Science*, 257-285.
- Sweller, J. (2005). *Implication of Cognitive Load Theory for Multimedia Learning.*
- Sweller, J. (2010). *Cognitive Load Theory: Recent Theoretical Advances.* Cambridge: Cambridge University Press.
- Sweller, J., & Chandler, P. (2009). Why some Material is Difficult to Learn. *Cognition and Instruction*, 12(3), 185-233. doi:10.1207/s1532690xci1203_1
- Tekkaya, C., Ozkan, O., & Sungur, S. (2001). Biology Concepts Perceived as Difficult by Turkish High School Students.
- Valdez, Alfred. (2005). Cognitive Load and Learning effects of having Student Organize Pictures and word in Multimedia Environments: the Role of student interactivity and feedback. *Educational Technology Research and Development.*
- Yeh, T., K., Tseng, K. Y., Cho, C., W., Barufaldi, J., P., Lin, M., S., Chang, C., Y. (2012). Exploring the Impact of Prior Knowledge and Appropriate Feedback on Students Perceived Cognitive Load and Learning Outcomes: Animation-based Earthquakes Instruction.
- Zainul, Asmawi & Nasoetion, Noehi. (1997). *Penilaian Hasil Belajar.* Jakarta: UT.

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RIWAYAT HIDUP

Penulis memiliki nama lengkap Harsyaniati, lahir di Tambun Kabupaten Bekasi, pada hari kamis tanggal 04 November 1996. Penulis merupakan anak kedua dari dua bersaudara pasangan Bapak Syafri R, dan Ibu Habibatishalihin. Penulis beralamat di Jorong sigiran, Kelurahan Malalak Utara, Kecamatan Malalak, Kabupaten Agam, Provinsi Sumatera Barat.

Penulis mengawali pendidikan dari SDMI An-Nur pada tahun 2003-2006 kemudian pindah sekolah ke SDN 27 Sigiran pada tahun 2006-2008. Penulis melanjutkan pendidikan ke jenjang lebih tinggi di SMPN 1 Malalak pada tahun 2008-2010, kemudian pindah sekolah ke SMPN 6 Bukittinggi pada tahun 2010-2011. Selanjutnya, penulis melanjutkan SMA di SMAN 3 Bukittinggi pada tahun 2011-2014, dan kembali melanjutkan pendidikan di Departemen Pendidikan Biologi, Fakultas FPMIPA, Universitas Pendidikan Indonesia pada tahun 2014.

Penulis tercatat sebagai mahasiswa aktif khususnya dalam bidang olahraga. Penulis tercatat sebagai pengurus BEM Departemen Pendidikan Biologi yaitu Himpunan Mahasiswa Biologi Formica selama 2 periode kepengurusan, dengan divisi Departemen Pengembangan Kreatifitas bidang olahraga pada tahun 2015-2016 dan 2016-2017. Selain itu, penulis merupakan salah satu asisten praktikum pada mata kuliah Mikrobiologi tahun 2017.

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