DAFTAR PUSTAKA

- Akerlind, Gerlese S. 2005. Variation and Commonality in Phenomenographic Research Methods. *Higher Education Research & Development*. 24:4, 321 334, 24:4, 321334.
- Ashworth, Peter and Ursula Lucas. 2000. Achieving Empathy and Engagement: A Practical Approach to the Design, Conduct and Reporting of Phenomenographic Research. *Studies in Higher Education*. 25:3, 295-308.
- Banda, Herbert James and Joseph Nzabahimana. 2021. Effect of Integrating Physics Education Technology Simulations on Students' Conceptual Understanding in Physics: A Review of Literature. *Physical Review Physics Education Research.* 17 (2), 023108.
- Beau Fly Jones and Lorna Idol, 1990. *Dimensions of Thinking and Cognitive Instruction*. New Jersey: Lawrence Erlbaum Associates, Inc., Publishers.
- Bussey T. J., Orgill M. K., and Crippen K. J. 2012. Variation Theory: A Theory of Learning and A Useful Theoretical Framework for Chemical Education Research. *Chem. Educ. Res. Pract.*, 14(1), 922.
- Chang, Raymond. 2010. *Chemistry, 10th Edition*. New York: The McGraw-Hill Companies, Inc.
- Chebii, R., Wachanga, S. and Anditi, Z. 2018. Effects of Cooperative E-Learnin Approach on Students' Chemistry Achievement in Koibatek Sub-County, Kenya. *Creative Education*, 9, 1872-1880.
- Craig W. Bowen and Diane M. Bunce. 1997. Testing for Conceptual Understanding in General Chemistry. *The Chemical Educator Springer-Verlag New York*. Vol. 2, No. 2.
- Ebenezer, Jazlin V. and Gaalen L. Erickson. 1996. Chemistry Students' Conceptions of Solubility: A Phenomenography. *Science Education*. 80(2): 181-201.
- Eliyawati *et al.* 2018. The Effect of Learning Multimedia on Students' Understanding of Macroscopic, Sub-Microscopic, and Symbolic Levels in Electrolyte and Nonelectrolyte. *Journal of Physics*: Conference Series. 1013.
- Funda ORNEK. 2008. An Overview of a Theoretical Framework of Phenomenography in Qualitative Education Research: An Example From Physics Education Research. *Asia-Pacific Forum on Science Learning and Teaching*. Volume 9, Issue 2, Article 11.
- Feifei Han and Robert A Ellis. 2019. Using Phenomenography to Tackle Key Challenges in Science Education. *Front. Psychol.* 10:1414.
- Golding, J. et al. 2018. What is Teaching With Variation and Is It Relevant to Teaching and Learning Mathematics in England?. Research Proceedings of the 9th British Congress on Mathematics Education.

- Holbrook, J. 2005. Making Chemistry Teaching Relevant. *Chemical Education International*. 6(1),2-12.
- Holme, Thomas A., Cynthia J. Luxford, and Alexandra Brandriet. 2015. Defining Concetual Understanding in General Chemistry. *Journal of Chemical Education*. 92 (9), 1477-1483.
- Ibuki, Tomohide *et al.* 2020. Differences in Conceptual Understanding of the "Actionability" of Incidental Findings and the Resultant Difference in Ethical Responsibility: An Empirical Study in Japan: An Empirical Study in Japan. *AJOB Empirical Bioethics*.
- Irawati, Ratna Kartika. 2019. Pengaruh Pemahaman Konsep Asam Basa terhadap Konsep Hidrolisis Garam Mata Pelajaran Kimia SMA Kelas XI. *Thabiea: Journal of Natural Science Teaching*. Vol. 02 No. 01.
- James E. Brady and Neil D. Jespersen. 2012. *Chemistry: The Molecular Nature of Matter, sixth edition*. United States of America: John Wiley and Sons, Inc.
- Jan Larsson and Inger Holmström. 2007. Phenomenographic or Phenomenological Analysis: Does It Matter? Examples From a Study on Anaesthesiologists' Work. *International Journal of Qualitative Studies on Health and Well being*, 2:1, 55-64.
- Laliyo L.A.R, Bambang S, dan Citra P. 2020 Measuring Changes in Hydrolysis Concept of Students Taught by Inquiry Model: Stacking and Racking Analysis Techniques in Rasch Model. *Heliyon*. 17;8(3):e09126.
- Lo, M., and Chik, P. 2016. Two horizons of fusion. *Scand. J. Educ. Res.* 60, 296–308.
- Marks, R. and Eilks, I. 2009. Promoting Scientific Literacy Using a Sociocritical and Problem Oriented Approach to Chemistry Teaching: Concept, Examples, Experiences . International Journal of Environmental & Science Education. 4(3),231-245.
- Marton, Ference and Shirley Booth. 1997. *Learning and Awareness*. New York and London: Rouledge Taylor & Francis Group.
- Minasian-Batmanian, L., Lingard, J., and Prosser, M. 2006. Variation in Student Reflections on Their Conceptions of and Approaches to Learning Biochemistry in a First-Year Health Sciences' Service Subject. *Int. J. Sci. Educ.* 28, 1887–1904.
- Mintzes, Joel J. et al. 2005. Assessing Science Understanding: A Human Constructivist View. California: Elsevier Academic Press.
- Moran, Richard Konicek and Page Keeley. 2015. *Teaching for Conceptual Understanding in Science*. Virgina: NSTA press.
- National Research Council. 2012. Discipline-Based Education Research: Understanding and Improving Learning in Undergraduate Science and Engineering. Washington, DC: National Academies Press.

- Orwat, K., Bernard, P., and Migdał-Mikuli, A. 2017. Alternative Conceptions of Common Salt Hydrolysis Among Upper-Secondary-School Students. *Journal of Baltic Science Education*, 16(1), 64-76.
- Pane, Aprida dan Muhammad Darwis Dasopang. 2017. Belajar dan Pembelajaran. Jurnal Kajian Ilmu-Ilmu Keislaman. Vol. 03, No. 2.
- Pang, M. F., and Ki, W. W. 2016. Revisiting the Idea of 'Critical Aspects'. Scandinavian *Journal of Educational Research*. 60(3), 323–336.
- Pinabarsi, Tacettin, 2007. Turkish Undergraduate Students' Misconceptions on Acids and Bases. *Journal of Baltic Science Education*. Vol. 6, No. 1, 23-34.
- Prianti, Ttri dkk. 2020. Misconceptions of High School Students in Salt Hydrolysis Topic Using a Three-Tier Diagnostic Test (TTDT). Jurnal Kimia dan Pendidikan Kimia. Vol. 5, No. 1.
- Rahayu, S., *et al.* 2011. Understanding Acid–Base Concepts: Evaluating the Efficacy of a Senior High School Student-Centred Instructional Program in Indonesia. *International Journal of Science and Math Educucation*. 9, 1439–1458.
- Reading, Chris and J. Michael Shaughnessy. 2004. *Reasoning About Variation: The Challenge of Developing Statistical Literacy, Reasoning and Thinking.* Netherlands: Kluwer Academic Publishers. 201-226.
- Rosenberg, Jerome L. Lawrence M. E, and Peter J. K. 2007. Schaum's Outline of Theory and Problem of Colleger Chemistry Ninth Edition. New York: McGRAW-HILL.
- Sands, David. 2014. Concepts and conceptual understanding: What are we talking about?. *New Directions in the Teaching of Physical Sciences*. 10, 7.
- Serevina, Vina. 2020. Model-Model Pembelajaran. Depok: UI Publishing.
- Shanshan Lu, Hualin Bi, and Xiufeng Liu. 2018. A Phenomenographic Study of 10th Grade Students' Understanding of Electrolytes. *Chemistry Education Research and Practice*. 20, 204-212.
- Sirhan, Ghassan. 2007. Learning Difficulties in Chemistry: An Overview. Journal of Turkish Science Education. Vol 4, Issue 2.
- Stamouli, Ioanna and Meriel Huggard. 2007. *Phenomenography as a Tool For Understanding Our Students*. International Symposium for Engineering Education.
- Sudiana I, Suja I, dan Mulyani I. 2019. Analisis Kesulitan Belajar Kimia Siswa pada Materi Kelarutan dan Hasil Kali Kelarutan. *Jurnal Pendidikan Kimia Indonesia*. 3(1):7-16.
- Suhita, Delpima. 2021. Understanding Students' Concept of Salt Hydrolysis Material at Three Levels of Chemical Representation at Senior High School (Sman) 2 Padang Panjang, West Sumatera. *International Journal of Multi Science*. Vol. 2, No. 5.

- Taber, K. S. 2009. Progressing Science Education: Constructing the Scientific Research Programme into the Contingent Nature of Learning Science. NewYork: Springer Dordrecht.
- Utami, Deti D, Budi Hastuti, dan Tri Redjeki. 2015. Upaya Peningkatan Aktivitas Dan Prestasi Belajar Siswa Kelas XI IPA 2 dengan Menggunakan Model Pembelajaran Kooperatif Tipe Team Assisted Individualization (TAI) Berbantuan Demonstrasi pada Materi Hidrolisis Garam di SMA Negeri 1 Banyudono Boyolali. *Jurnal Pendidikan Kimia Universitas Sebelas Maret.* Vol. 4, no. 1, pp. 157-164.
- Watson, Jane M. and Ben A. Kelly. 2007. Assessment of Students' Understanding of Variation. *Journal Compilation*. Vol. 29, No. 3.
- Wicaksono, Anggit Grahito. 2022. Johnstone's Levels of Representation in Science Learning. Jurnal Kajian Pendidikan Sains. Vol. 8, No. 1.
- Williams, Mark T. *et al.* 2019. SOLO-Based Task to Improve Self-Evaluation and Capacity to Integrateconcepts in First-Year Physiology Students. *Adv. Physiol Educ.* 43: 486-494.