

### Daftar Pustaka

- Atit, K., Miller, D. I., Newcombe, N. S., & Uttal, D. H. (2018). Teachers' spatial skills across disciplines and education levels: Exploring nationally representative data. *Archives of Scientific Psychology*, 6(1), 130.
- Azwar, S. (2016). Konstruksi tes kemampuan kognitif. *Yogyakarta: Pustaka Pelajar*.
- Cain, K., Oakhill, J., & Bryant, P. (2004). Children's reading comprehension ability: Concurrent prediction by working memory, verbal ability, and component skills. *Journal of educational Psychology*, 96(1), 31.
- Cattell, R. B. (1957). *Personality and motivation structure and measurement*. World Book Co.
- Cattell, R. B. (1971). *Abilities: Their structure, growth, and action*. Houghton Mifflin.
- Cheng, Y.-L., & Mix, K. S. (2014). Spatial training improves children's mathematics ability. *Journal of cognition and development*, 15(1), 2-11.
- Cohen, R. J., & Swerdlik, M. E. (2017). *Psychological testing and assessment*. McGraw-Hill Education.
- Cromley, J. G., Booth, J. L., Wills, T. W., Chang, B. L., Tran, N., Madeja, M., & Zahner, W. (2017). Relation of spatial skills to calculus proficiency: A brief report. *Mathematical Thinking and Learning*, 19(1), 55-68.
- Davison, M. L., Jew, G. B., & Davenport, E. C. (2014). Patterns of SAT scores, choice of STEM major, and gender. *Measurement and Evaluation in Counseling and Development*, 47(2), 118-126. <https://doi.org/10.1177/0748175614522269>
- Desoete, A., & Grégoire, J. (2006). Numerical competence in young children and in children with mathematics learning disabilities. *Learning and Individual Differences*, 16(4), 351-367. <https://doi.org/https://doi.org/10.1016/j.lindif.2006.12.006>
- Dorans, N. J., & Kulick, E. (2006). Differential item functioning on the Mini-Mental State Examination: an application of the Mantel-Haenszel and standardization procedures. *Medical Care*, S107-S114.
- Elrod, E., & Park, J. Y. (2020). A comparison of students' quantitative reasoning skills in STEM and non-STEM math pathways. *Numeracy*, 13(2), 3.
- Emily, D., Brooks, G., & Johanson, G. (2021). Detecting differential item functioning: Item Response Theory methods versus the Mantel-Haenszel procedure. *International Journal of Assessment Tools in Education*, 8(2), 376-393.
- Flanagan, D. P., & Dixon, S. G. (2013). The Cattell-Horn-Carroll theory of cognitive abilities. *Encyclopedia of special education: A reference for the education of children, adolescents, and adults with disabilities and other exceptional individuals*.
- French, A. W., & Miller, T. R. (1996). Logistic regression and its use in detecting differential item functioning in polytomous items. *Journal of Educational Measurement*, 33(3), 315-332.
- French, B. F., & Finch, W. H. (2013). Extensions of Mantel-Haenszel for multilevel DIF detection. *Educational and Psychological Measurement*, 73(4), 648-671. <https://doi.org/10.1177/0013164412472341>
- Fujita, T., Kondo, Y., Kumakura, H., & Kunimune, S. (2017). Students' geometric thinking with cube representations: Assessment framework and empirical evidence. *The Journal of Mathematical Behavior*. <https://doi.org/10.1016/j.jmathb.2017.03.003>

- Fujita, T., Kondo, Y., Kumakura, H., Kunimune, S., & Jones, K. (2020). Spatial reasoning skills about 2D representations of 3D geometrical shapes in grades 4 to 9. *Mathematics Education Research Journal*. <https://doi.org/10.1007/s13394-020-00335-w>
- Furr, R. M. (2021). *Psychometrics: an introduction*. SAGE publications.
- Gao, C., & Zheng, Q. (2014). A linguistic study of antonymy in english texts. *Journal of Language Teaching & Research*, 5(1).
- Giofrè, D., Mammarella, I. C., & Cornoldi, C. (2014). The relationship among geometry, working memory, and intelligence in children. *Journal of Experimental Child Psychology*. <https://doi.org/10.1016/j.jecp.2014.01.002>
- Haryanta. (2010). Keberfungsian item differensial pada tes potensi UM UGM (Differential Item Functioning in the scholastic aptitude test of the Gadjah Mada University selection test).
- Hausmann, M. (2014). Arts versus science – Academic background implicitly activates gender stereotypes on cognitive abilities with threat raising men's (but lowering women's) performance. *Intelligence*, 46, 235-245. <https://doi.org/https://doi.org/10.1016/j.intell.2014.07.004>
- Heming, T. A., & Nandagopal, S. (2012). Comparative difficulties with non-scientific general vocabulary and scientific/medical terminology in English as a second language (ESL) medical students. *Sultan Qaboos University medical journal*, 12(4), 485.
- Hirst, G., & Wang, T. (2012). Exploring patterns in dictionary definitions for synonym extraction. *Natural Language Engineering*, 18(3), 313-342. <https://doi.org/10.1017/S1351324911000210>
- İlhan, A., & Aslaner, R. (2021). Analysis of the correlations between visual mathematics literacy perceptions, reasoning skills on geometric shapes and geometry performances of pre-service mathematics teachers. *Participatory Educational Research*, 8(1), 90-108. <https://doi.org/10.17275/per.21.5.8.1>
- Jones, S., & Burnett, G. (2008). Spatial ability and learning to program. *Human Technology: An Interdisciplinary Journal on Humans in ICT Environments*.
- Kaplan, J. J., & Rogness, N. (2018). Increasing statistical literacy by exploiting lexical ambiguity of technical terms. *Numeracy*, 11(1), 3.
- Kelley, T. R., & Knowles, J. G. (2016). A conceptual framework for integrated STEM education. *International Journal of STEM education*, 3, 1-11.
- Kohút, M., Halama, P., Dockal, V., & Zitný, P. (2016). Gender differential item functioning in Slovak version of intelligence structure test 2000-revised. *Studia Psychologica*, 58(3), 238.
- Kolb, D. A., & Wolfe, D. M. (1981). Professional education and career development: A cross sectional study of adaptive competencies in experiential learning. Lifelong learning and adult development project. Final report.
- Kozhevnikov, M., Motes, M. A., & Hegarty, M. (2007). Spatial visualization in physics problem solving. *Cognitive science*, 31(4), 549-579.
- Li, T. (2014). Book Review: Item response theory. *Applied Psychological Measurement*, 38(5), 410-412. <https://doi.org/10.1177/0146621614522542>
- Lin, H. (2016). Influence of design training and spatial solution strategies on spatial ability performance. *International Journal of Technology and Design Education*, 26, 123-131.
- Longford, N. T. (2014). Screening test items for differential item functioning. *Journal of Educational and Behavioral Statistics*, 39(1), 3-21.

- Lu, H., Wu, Y. N., & Holyoak, K. J. (2019). Emergence of analogy from relation learning. *Proceedings of the National Academy of Sciences*, 116(10), 4176-4181. <https://doi.org/10.1073/pnas.1814779116>
- Marunic, G., & Glazar, V. (2013). Spatial ability through engineering graphics education. *International Journal of Technology and Design Education*, 23, 703-715.
- McGrew, K. S., Flanagan, D. P., Keith, T. Z., & Vanderwood, M. (1997). Beyond g: The impact of Gf-Gc specific cognitive abilities research on the future use and interpretation of intelligence tests in the schools. *School Psychology Review*, 26(2), 189-210.
- Moè, A., Hausmann, M., & Hirnstein, M. (2021). Gender stereotypes and incremental beliefs in STEM and non-STEM students in three countries: Relationships with performance in cognitive tasks. *Psychological research*, 85(2), 554-567.
- Negahi, M., Nouri, N., & Khoram, A. (2015). The study of learning styles, thinking styles, and english language academic self-efficacy among the students of Islamic Azad University of Behbahan considering their field of study and gender. *Theory and Practice in Language Studies*, 5(8), 1722.
- Osztíán, P. R., Kátai, Z., & Osztíán, E. (2022). On the computational thinking and diagrammatic reasoning of first-year computer science and engineering students [Original Research]. *Frontiers in Education*, 7. <https://www.frontiersin.org/articles/10.3389/feduc.2022.933316>
- Pae, T.-I. (2004). DIF for examinees with different academic backgrounds. *Language testing*, 21(1), 53-73.
- Park, G., Lubinski, D., & Benbow, C. P. (2007). Contrasting intellectual patterns predict creativity in the arts and sciences: Tracking intellectually precocious youth over 25 years. *Psychological Science*, 18(11), 948-952.
- Peters, M., Laeng, B., Latham, K., Jackson, M., Zaiyouna, R., & Richardson, C. (1995). A redrawn Vandenberg and Kuse mental rotations test-different versions and factors that affect performance. *Brain and cognition*, 28(1), 39-58.
- Pillay, H., Wilss, L., & Boulton-Lewis, G. (1998). Sequential development of algebra knowledge: A cognitive analysis. *Mathematics Education Research Journal*, 10(2), 87-102.
- Puig, A., Rodríguez, I., Baldeón, J., & Múria, S. (2022). Children building and having fun while they learn geometry. *Computer Applications in Engineering Education*, 30(3), 741-758.
- Robinson, K., Westfall-Rudd, D., Drape, T., & Scherer, H. (2018). Conceptualizing integrative agricultural education: Introductory framework for integrating mathematics in agricultural curriculum. *Journal of Agricultural Education*, 59(4), 253-269.
- Rocconi, L. M., Lambert, A. D., McCormick, A. C., & Sarraf, S. A. (2013). Making college count: An examination of quantitative reasoning activities in higher education.
- Runnels, J. (2013). Measuring differential item and test functioning across academic disciplines. *Language Testing in Asia*, 3, 1-11.
- Rustam, A., Naga, D. S., & Supriyati, Y. (2019). Sensitivity and accuracy of the mantel-haenszel method and standardization method: Detection of item functioning differential. *International Journal of Education and Literacy Studies*, 7(3), 28-37.
- Sinha, P. (2022). Effectiveness of health education package of Janani Shishu Suraksha Karyakram (JSSK) scheme by ante-natal and post-natal mothers in a district hospital of Faridabad (Haryana). *Nursing Journal of India*, 113(3), 99-103.

- Song, X., Cheng, L., & Klinger, D. (2015). DIF investigations across groups of gender and academic background in a large-scale high-stakes language test. *Papers in Language Testing and Assessment*, 4(1), 97-124.
- Swaminathan, H., & Rogers, H. J. (1990). Detecting differential item functioning using logistic regression procedures. *Journal of Educational Measurement*, 27(4), 361-370. <https://doi.org/https://doi.org/10.1111/j.1745-3984.1990.tb00754.x>
- Uttal, D. H., Meadow, N. G., Tipton, E., Hand, L. L., Alden, A. R., Warren, C., & Newcombe, N. S. (2013). The malleability of spatial skills: a meta-analysis of training studies. *Psychological bulletin*, 139(2), 352.
- Veenstra, C. P., Dey, E. L., & Herrin, G. D. (2008). Is modeling of freshman engineering success different from modeling of non-engineering success? *Journal of Engineering Education*, 97(4), 467-479.
- Wahidah, F. R., Putra, F. R., & Nugrahaeni, A. F. (2022). Statistic course: Can it improves numeric reasoning ability? *Journal of Learning Theory and Methodology*, 3(2), 53-58. <https://doi.org/10.17309/jltm.2022.2.01>
- Wahono, B. (2023). Development of integrated STEM education learning units to access students' systems thinking abilities: A case study on flood phenomenon. *Jurnal Inovasi Teknologi Pendidikan*, 10(1).
- Wai, J., Lubinski, D., & Benbow, C. P. (2009). Spatial ability for STEM domains: Aligning over 50 years of cumulative psychological knowledge solidifies its importance. *Journal of educational Psychology*, 101(4), 817.
- Widhiarso, W., & Retnowati, S. (2011). Investigasi butir bias jender dalam pengukuran depresi melalui Children's Depression Inventory (CDI). *Jurnal Penelitian Psikologi*, 2(1), 1-10.
- Williams, C. B., Gero, J. S., Lee, Y., & Paretto, M. C. (2010). Exploring spatial reasoning ability and design cognition in undergraduate engineering students. <https://doi.org/10.1115/detc2010-28925>
- Yalcin, S. (2018). Determining differential item functioning with the mixture item response theory. *Eurasian Journal of Educational Research*, 18(74), 187-206.
- Zanon, C., Hutz, C. S., Yoo, H. H., & Hambleton, R. K. (2016). An application of item response theory to psychological test development. *Psicologia: Reflexão e Crítica*, 29.
- Zhang, H., Talhelm, T., Yang, Q., & Hu, C. S. (2021). High-status people are more individualistic and analytic-thinking in the west and wheat-farming areas, but not rice-farming areas. *European Journal of Social Psychology*, 51(6), 878-895.
- Zieky, M. (2012). Practical questions in the use of DIF statistics in test development. In *Differential item functioning* (pp. 337-347). Routledge.
- Zwick, R., Donoghue, J. R., & Grima, A. (1993). Assessment of differential item functioning for performance tasks. *Journal of Educational Measurement*, 30(3), 233-251. <https://doi.org/https://doi.org/10.1111/j.1745-3984.1993.tb00425.x>