



Dr. Zainuddin Iba, S.E., M.M.
Dr (Cand). Aditya Wardhana, S.E., M.Si., M.M., CHRMP, CIRP, CHRA, CPP, CHRBP.

Operasionalisasi Variabel, Skala Pengukuran & Instrumen Penelitian Kuantitatif

Editor:
Mahir Pradana, Ph.D.

Operasionalisasi Variabel, Skala Pengukuran & Instrumen Penelitian Kuantitatif

Buku referensi ini menjelaskan secara komprehensif mengenai Operasionalisasi Variabel, Skala Pengukuran, & Instrumen Penelitian Kuantitatif dengan memberikan pandangan sesuai dengan konsep metode penelitian itu sendiri. Topik yang dibahas meliputi: Operasionalisasi Variabel Penelitian Kuantitatif; Skala Pengukuran Variabel Penelitian Kuantitatif; Skala Nominal Dalam Penelitian Kuantitatif, Skala Ordinal Dalam Penelitian Kuantitatif; Skala Interval Dalam Penelitian Kuantitatif; Skala Rasio Dalam Penelitian Kuantitatif; dan Instrumen Penelitian Dalam Penelitian Kuantitatif. Buku referensi ini dapat menjadi panduan komprehensif dan praktis untuk memahami mengenai Operasionalisasi Variabel, Skala Pengukuran, & Instrumen Penelitian Kuantitatif, dan merupakan bacaan penting bagi siapa saja yang tertarik untuk memahami metode penelitian dan implementasi mengenai Operasionalisasi Variabel, Skala Pengukuran, & Instrumen Penelitian Kuantitatif.



0858 5343 1992
eurekamediaaksara@gmail.com
Jl. Banjaran RT.20 RW.10
Bojongsari - Purbalingga 53362



OPERASIONALISASI VARIABEL, SKALA PENGUKURAN & INSTRUMEN PENELITIAN KUANTITATIF

Dr. Zainuddin Iba, S.E., M.M.

Dr (Cand). Aditya Wardhana, S.E., M.Si., M.M., CHRMP, CIRP,
CHRA, CPP, CHRBP



eureka
media aksara

PENERBIT CV. EUREKA MEDIA AKSARA

**OPERASIONALISASI VARIABEL, SKALA PENGUKURAN &
INSTRUMEN PENELITIAN KUANTITATIF**

Penulis : Dr. Zainuddin Iba, S.E., M.M.
Dr (Cand). Aditya Wardhana, S.E., M.Si., M.M.,
CHRMP, CIRP, CHRA, CPP, CHRBP

Editor : Mahir Pradana, Ph.D.

Desain Sampul : Ardyan Arya Hayuwaskita

Tata Letak : Fitriani Nur Khaliza

ISBN : 978-623-120-930-6

No. HKI : EC00202457769

Diterbitkan oleh : **EUREKA MEDIA AKSARA, JUNI 2024**
ANGGOTA IKAPI JAWA TENGAH
NO. 225/JTE/2021

Redaksi:

Jalan Banjaran, Desa Banjaran RT 20 RW 10 Kecamatan Bojongsari
Kabupaten Purbalingga Telp. 0858-5343-1992

Surel : eurekaediaaksara@gmail.com

Cetakan Pertama : 2024

All right reserved

Hak Cipta dilindungi undang-undang

Dilarang memperbanyak atau memindahkan sebagian atau seluruh isi buku ini dalam bentuk apapun dan dengan cara apapun, termasuk memfotokopi, merekam, atau dengan teknik perekaman lainnya tanpa seizin tertulis dari penerbit.

KATA PENGANTAR

Puji syukur penulis panjatkan kepada Tuhan Yang Maha Esa, karena atas berkat dan rahmat-Nya, penulis dapat menyelesaikan buku ini. Penulisan buku merupakan buah karya dari pemikiran penulis yang diberi judul “Operasionalisasi Variabel, Skala Pengukuran & Instrumen Penelitian Kuantitatif”. Penulis menyadari bahwa tanpa bantuan dan bimbingan dari berbagai pihak sangatlah sulit bagi penulis untuk menyelesaikan karya ini. Oleh karena itu, penulis mengucapkan banyak terima kasih pada semua pihak yang telah membantu penyusunan buku ini. Sehingga buku ini bisa hadir di hadapan pembaca.

Buku ini terdiri dari 7 bab yang dijelaskan secara rinci dalam pembahasan pada setiap babnya, diantaranya yaitu:

- Bab 1 Operasionalisasi Variabel Penelitian Kuantitatif
- Bab 2 Skala Pengukuran Variabel Penelitian Kuantitatif
- Bab 3 Skala Nominal dalam Penelitian Kuantitatif
- Bab 4 Skala Ordinal dalam Penelitian Kuantitatif
- Bab 5 Skala Interval dalam Penelitian Kuantitatif
- Bab 6 Skala Rasio dalam Penelitian Kuantitatif
- Bab 7 Instrumen Penelitian dalam Penelitian Kuantitatif

Penulis menyadari bahwa buku ini masih jauh dari kesempurnaan. Oleh karena itu kritik dan saran yang membangun sangat dibutuhkan guna penyempurnaan buku ini. Akhir kata penulis berharap Tuhan Yang Maha Esa berkenan membalas segala kebaikan semua pihak yang telah membantu. Semoga buku ini akan membawa manfaat bagi pengembangan ilmu pengetahuan.

DAFTAR ISI

KATA PENGANTAR.....	iii
DAFTAR ISI.....	iv
DAFTAR GAMBAR.....	vii
DAFTAR TABEL	viii
BAB 1 OPERASIONALISASI VARIABEL PENELITIAN	
KUANTITATIF	1
A. Pengertian Operasionalisasi Variabel Penelitian Kuantitatif	1
B. Penyusunan Operasionalisasi Variabel Penelitian Kuantitatif	3
C. Komponen-komponen Penyusunan Operasionalisasi Variabel dalam Penelitian Kuantitatif	25
DAFTAR PUSTAKA.....	29
BAB 2 SKALA PENGUKURAN VARIABEL PENELITIAN	
KUANTITATIF	32
A. Pengertian Skala Pengukuran Variabel Penelitian Kuantitatif	32
B. Pentingnya Skala Pengukuran Variabel Penelitian Kuantitatif	33
C. Hal-hal yang dipertimbangkan dalam menggunakan Skala Pengukuran dalam Penelitian Kuantitatif	34
D. Tujuan Menggunakan Skala Pengukuran dalam Penelitian Kuantitatif	36
E. Jenis-jenis Skala Pengukuran dalam Penelitian Kuantitatif	41
DAFTAR PUSTAKA.....	46
BAB 3 SKALA NOMINAL DALAM PENELITIAN	
KUANTITATIF	51
A. Pengenalan Skala Nominal dalam Pengukuran Variabel Penelitian Kuantitatif.....	51
B. Konsep Penggunaan Skala Pengukuran Variabel Penelitian Kuantitatif	53

C. Karakteristik Skala Nominal dalam Penelitian Kuantitatif.....	56
D. Contoh Penerapan Skala Nominal dalam Penelitian Kuantitatif.....	57
E. Contoh Visualisasi Penerapan Skala Nominal dalam Penelitian Kuantitatif	58
DAFTAR PUSTAKA	61
BAB 4 SKALA ORDINAL DALAM PENELITIAN KUANTITATIF.....	70
A. Pengertian Skala Ordinal dalam Pengukuran Variabel Penelitian Kuantitatif	70
B. Jenis-jenis Skala Ordinal dalam Pengukuran Variabel Penelitian Kuantitatif	71
DAFTAR PUSTAKA	93
BAB 5 SKALA INTERVAL DALAM PENELITIAN KUANTITATIF.....	100
A. Pengertian Skala Interval dalam Pengukuran Variabel Penelitian Kuantitatif	100
B. Contoh Skala Interval dalam Pengukuran Variabel Penelitian Kuantitatif	102
C. Transformasi Skala Ordinal menjadi Skala Interval menggunakan <i>Method of Successive Interval (MSI)</i>	104
DAFTAR PUSTAKA	112
BAB 6 SKALA RASIO DALAM PENELITIAN KUANTITATIF.....	115
A. Pengertian Skala Rasio dalam Pengukuran Variabel Penelitian Kuantitatif	115
B. Contoh Skala Rasio dalam Pengukuran Variabel Penelitian Kuantitatif.....	117
C. Cara Perhitungan Data Skala Rasio dalam Penelitian Kuantitatif.....	117
D. Teknik Analisis Data Skala Rasio dalam Penelitian Kuantitatif.....	118
DAFTAR PUSTAKA	119

BAB 7 INSTRUMEN PENELITIAN DALAM PENELITIAN	
KUANTITATIF	120
A. Pengertian Instrumen Penelitian Kuantitatif	120
B. Penyusunan Instrumen Penelitian Kuantitatif	130
C. Hubungan Antara Judul Penelitian dan Instrumen yang dikembangkan.....	131
DAFTAR PUSTAKA.....	133
TENTANG PENULIS.....	138

DAFTAR GAMBAR

Gambar 2. 1. Ciri-Ciri Skala Data dalam Penelitian Kuantitatif.....	45
Gambar 3. 1. Karakteristik Responden berdasarkan Jenis Kelamin.....	58
Gambar 3. 2. Karakteristik Responden berdasarkan Usia	59
Gambar 3. 3. Karakteristik Responden berdasarkan Tingkat Pendidikan.....	60
Gambar 4. 1. Garis Kontinum Nilai Sikap Kepuasan Atas Layanan Produk.....	79
Gambar 4. 2. Garis Kontinum Nilai Sikap Kepuasan Atas Layanan Produk.....	82
Gambar 4. 3. Implementasi Skala Thurstone	87
Gambar 5. 1. <i>Net Promoter Score</i> atau NPS.....	104
Gambar 5. 2. Tabel Matriks Bipolar	104

DAFTAR TABEL

Tabel 1. 1.	Operasionalisasi Variabel Bidang Manajemen SDM....	4
Tabel 1. 2.	Operasionalisasi Variabel Bidang Manajemen Keuangan.....	7
Tabel 1. 3.	Operasionalisasi Variabel Bidang Manajemen Keuangan.....	7
Tabel 1. 4.	Operasionalisasi Variabel Bidang Manajemen Pemasaran	12
Tabel 1. 5.	Operasionalisasi Variabel Bidang Pendidikan.....	14
Tabel 1. 6.	Operasionalisasi Variabel Bidang Pemerintahan.....	17
Tabel 2. 1.	Skala Pengukuran dalam Penelitian Kuantitatif.....	45
Tabel 4. 1.	Skala Likert.....	74
Tabel 4. 2.	Tabel Nilai Sikap Terhadap Kepuasan Atas Layanan Produk.....	76
Tabel 4. 3.	Tabel Nilai Sikap Kepuasan Atas Layanan Produk....	77
Tabel 4. 4.	Tabel Nilai Sikap Kepuasan Atas Layanan Produk....	78
Tabel 4. 5.	Distribusi Frekuensi Nilai Sikap Kepuasan Atas Layanan Produk.....	78
Tabel 4. 6.	Tabel Nilai Sikap Terhadap Kepuasan Atas Layanan Produk.....	80
Tabel 4. 7.	Nilai Sikap Kepuasan Atas Layanan Produk	81
Tabel 4. 8.	Tabel Nilai Sikap Kepuasan Atas Layanan Produk....	81
Tabel 4. 9.	Distribusi Frekuensi Nilai Sikap Kepuasan Atas Layanan Produk.....	82
Tabel 4. 10.	Implementasi Skala Diferensial Semantik	89
Tabel 4. 11.	Skala Guttman pada Kepuasan atas Layanan Produk	92
Tabel 5. 1.	Pernyataan Kuesioner Variabel Akuntabilitas.....	109
Tabel 5. 2.	Jawaban Responden dalam Skala Ordinal Hasil Penyebaran Kuesioner.....	110
Tabel 5. 3.	Hasil MSI Jawaban Responden dalam Skala Interval.....	111

BAB 1

OPERASIONALISASI VARIABEL PENELITIAN KUANTITATIF

A. Pengertian Operasionalisasi Variabel Penelitian Kuantitatif

Peneliti dengan teliti mengembangkan cara untuk mengukur variabel setelah menetapkan langkah-langkah penelitian, memastikan hasil yang tepat, konsisten, dan valid. Proses ini melibatkan penilaian tentang keterkaitan variabel dan cara pengukurannya, dengan mempertimbangkan keterbatasan yang mungkin ada. Operasionalisasi variabel adalah proses mendefinisikan dan mengukur konsep-konsep abstrak dengan cara yang memungkinkannya diamati atau diukur secara objektif. (Iba & Wardhana, 2023; Raudenská, 2023; Helliwell et al., 2021; Helliwell et al., 2020; Mousavi et al., 2020; Tov, 2018; Khamis et al., 2016; Cipresso et al., 2014; Maffioletti et al., 2014; Veenhoven, 2014; Benjamin et al., 2014; Zweig, 2014).

Misalnya, konsep variabel yang abstrak yaitu tingkat kebahagiaan. Untuk mengoperasionalkan variabel ini, kita dapat menggunakan survei yang mengukur faktor-faktor seperti kepuasan hidup, frekuensi emosi positif, dan tidak adanya emosi negatif. Masing-masing faktor ini dapat diberi nilai numerik, sehingga memungkinkan kita mengukur dan mengamati variabel tingkat kebahagiaan.

Contoh lainnya adalah mengoperasionalkan variabel yaitu tingkat stres. Untuk mengoperasionalkan variabel ini, kita dapat menggunakan skala yang mengukur berbagai indikator stres, seperti detak jantung, tekanan darah, dan perasaan cemas yang dilaporkan sendiri. Dengan mengoperasionalkan variabel tingkat stres dengan cara ini, kita dapat mengamati dan

DAFTAR PUSTAKA

- Benjamin, D J., Heffetz, O., Kimball, M S., & Szembrot, N. (2014). Beyond Happiness and Satisfaction: Toward Well-Being Indices Based on Stated Preference. *American Economic Review*, 104(9), 2698-2735. <https://doi.org/10.1257/aer.104.9.2698>
- Cipresso, P., Serino, S., & Riva, G. (2014). The Pursuit of Happiness Measurement: A Psychometric Model Based on Psychophysiological Correlates. *Scientific World Journal*, 2014, 139128. <https://doi.org/10.1155/2014/139128>
- Flake, J K., Pek, J., & Hehman, E. (2017). Construct Validation in Social and Personality Research: Current Practice and Recommendations. *Social Psychological and Personality Science*, 8(4), 370-378. <https://doi.org/10.1177/1948550617693063>
- Helliwell, J F., Layard, R., Sachs, J D., & Neve, J D. (2020). *World Happiness Report 2020*. <https://apo.org.au/sites/default/files/resource-files/2020-03/apo-nid302982.pdf>
- Helliwell, J F., Layard, R., Sachs, J D., Neve, J D., Aknin, L B., Wang, S., & Paculor, S. (2021). *World Happiness Report 2021*. <https://archives.kdischool.ac.kr/handle/11125/41765>
- Iba, Z., & Wardhana, A. (2023). *Metode Penelitian*. Purbalingga: Eureka Media Aksara
- Khamis, M A., Ngo, H Q., & Rudra, A. (2016). FAQ. PODS '16: *Proceedings of the 35th ACM SIGMOD-SIGACT-SIGAI Symposium on Principles of Database Systems*, June 2016, 13-28. <https://doi.org/10.1145/2902251.2902280>
- Maffioletti, A., Maida, A., & Scacciati, F. (2014). *More Terminological and Methodological Problems in Measuring Happiness, Life Satisfaction and Well-Being: Some First Empirical Results*. https://doi.org/10.1007/978-3-319-04744-7_2

- Malik, M S., & Priyadi, M S. (2021). Analysis of Instrument Validity Assessment Items for Students Learning Achievement. *Jurnal Ilmiah Didaktika: Media Ilmiah Pendidikan dan Pengajaran*, 21(2), 127. <https://doi.org/10.22373/jid.v21i2.6702>
- Mousavi, A., Sharafi, Z., Mahmoudi, A., & Shahraki, H R. (2020). Measurement Invariance and Psychometric Analysis of Oxford Happiness Inventory Scale Across Gender and Marital Status. *BioMed Research International*, 2020, 8906209. <https://doi.org/10.1155/2020/8906209>
- Raudenská, P. (2023). Single-Item Measures of Happiness and Life satisfaction: The Issue of Cross-Country Invariance of Popular General Well-being Measures. *Humanities and Social Sciences Communications*, 10, 861. <https://doi.org/10.1057/s41599-023-02299-1>
- Slaney, K L. (2017). *Construct Validity: Developments and Debates*. Palgrave Studies in the Theory and History of Psychology. London: Palgrave Macmillan. https://doi.org/10.1057/978-1-137-38523-9_4
- Souza, A C D., Alexandre, N M C., & Guirardello, E D B. (2017). Propriedades Psicométricas Na Avaliação De Instrumentos: Avaliação Da Confiabilidade E Da Validade. *Epidemiologia E Serviços De Saúde*, 26(3), 649-659. <https://doi.org/10.5123/s1679-49742017000300022>
- Tov, W. (2018). *Well-being Concepts and Components*. Handbook of Well-Being. Salt Lake City, UT: DEF Publishers. doi: nobascholar.com
- Wardhana, Aditya. (2023). *Manajemen Sumber Daya Manusia Di Era Digital*. Purbalingga: Eureka Media Aksara
- Wardhana, Aditya, et al. (2022). *Metodologi Penelitian Kuantitatif, Kualitatif, dan Kombinasi*. Bandung: Media Sains Indonesia.

- Veenhoven, R. (2014). Informed Pursuit of Happiness: What We Should Know, Do Know and Can Get To Know. *Journal of Happiness Studies*, 16, 1035-1071. <https://doi.org/10.1007/s10902-014-9560-1>
- Zweig, J. (2014). Are Women Happier than Men? Evidence from the Gallup World Poll. *Journal of Happiness Studies*, 16(2), 515-541. <https://doi.org/10.1007/s10902-014-9521-8>

BAB 2

SKALA PENGUKURAN VARIABEL PENELITIAN KUANTITATIF

A. Pengertian Skala Pengukuran Variabel Penelitian Kuantitatif

Dalam bagian ini akan mendalami konsep skala pengukuran dan instrumen penelitian dalam konteks penelitian kuantitatif. Memahami konsep skala pengukuran dalam penelitian kuantitatif akan membantu peneliti mencapai hasil yang sesuai dengan tujuan yang telah ditetapkan. Skala pengukuran variabel dalam penelitian kuantitatif mengacu pada cara atau metode yang digunakan untuk mengukur atau menilai atribut atau karakteristik tertentu dari objek atau subjek penelitian. (Iba & Wardhana, 2023; Wardhana, et al., 2022; Colton & Covert, 2021; Grinnell Jr., Richard., & Unrau, 2020; Harkiolakis, 2017).

Mengukur atau menilai atribut atau karakteristik tertentu dari objek atau subjek penelitian berarti melakukan proses untuk menentukan atau memperoleh informasi tentang sifat-sifat yang dimiliki oleh objek atau subjek tersebut. Dalam konteks penelitian, objek atau subjek bisa berupa individu, kelompok, fenomena, atau variabel yang ingin diteliti. Proses pengukuran atau penilaian ini dilakukan dengan menggunakan metode atau teknik tertentu yang sesuai dengan sifat dari atribut atau karakteristik yang ingin diukur. Contohnya, jika penelitian ingin mengukur tingkat kepuasan konsumen terhadap suatu produk, maka peneliti dapat menggunakan kuesioner dengan skala nominal, ordinal, atau interval yang memungkinkan responden untuk mengekspresikan tingkat kepuasan mereka. (Kreutzer,

DAFTAR PUSTAKA

- Anjana., & Choudhuri, R. (2018). Identification of Criteria for Assessing the Quality of Research. *American Journal of Educational Research*, 6(6), 592-595. doi.org/10.12691/education-6-6-2
- Agama, A A., & Solikin, M. (2020). Development of Tutorial Video Learning Media on Engine Management System Diagnosis. *Journal of Physics. Conference Series*, 1700, 1-5. doi.org/10.1088/1742-6596/1700/1/012057
- Alfiyati, N., Kartika, N L., & Nugraha, A R. (2021). Study in Determining of Junction Point Value for Shifting Measurement Method on Line Scale Calibration in SNSU BSN. *Journal of Physics. Conference Series*, 1816(1), 012057-012057. doi.org/10.1088/1742-6596/1816/1/012057
- Barbieri, R., Matten, E C., Alabi, A A., & Brown, E N. (2005). A Point-Process Model of Human Heartbeat Intervals: New Definitions of Heart Rate and Heart Rate Variability., *American Journal of Physiology: Heart and Circulatory Physiology*, 288, H424-H435. doi.org/10.1152/ajpheart.00482.2003
- Chau, P Y. (1999). On The Use of Construct Reliability in MIS Research: A Meta-Analysis. *Information & Management*, 35(4), 217-227. doi.org/10.1016/s0378-7206(98)00089-5
- Chen, X., Wei, B., & Wu, Y. (2008). A Method of Ranking Based on Interval Order Number. *2008 Fifth International Conference on Fuzzy Systems and Knowledge Discovery*, 122-126. doi: 10.1109/FSKD.2008.392.
- Colton, David., & Covert, Robert W. (2021). *Designing and Constructing Instruments for Social Research and Evaluation*. Hoboken, NJ: John Wiley & Sons, Inc.

- Cruz, S M., & Manata, B. (2020). Measurement of Environmental Concern: A Review and Analysis. *Sec. Quantitative Psychology and Measurement*, 363, 1-14. doi.org/10.3389/fpsyg.2020.00363
- Dwiyanti, N K N., & Hartini, N M. (2021). Pengaruh Kualitas Produk, Harga, Promosi dan Distribusi Terhadap Keputusan Pembelian Teh Kemasan Siap Minum Merek Teh Pucuk Harum di Dalung. *Journal Research of Management (JARMA)*, 3(1), 66-76. doi.org/10.51713/jarma.v3i1.61
- Gao, Yuan., et al. (2020). A Comparison of Qualitative and Quantitative Measurement Instruments for Urban Public Space Quality. *Sustainability*, 12(10), 1-16
- Grace-Martin, Karen A., & Meyer, Jeff. (2012). How to Use Likert Scales and Other Ordinal Data in Regression Analysis. *The Journal of Statistics Education*, 20(2), 1-24
- Grinnell Jr., Richard M., & Unrau, Yvonne A. (2020). *Social Work Research and Evaluation: Quantitative and Qualitative Approaches*. New York, NY: Oxford University Press
- Handbook of Descriptive Statistics/Types of Statistical Variables. (2017). https://en.wikibooks.org/wiki/Handbook_of_Descriptive_Statistics/Types_of_Statistical_Variables
- Harkiolakis, Nicholas. (2017). *Quantitative Research Methods: From Theory to Publication*. Washington: CreateSpace Independent Publishing Platform
- Hedrih, Vladimir. (2019). *Adapting Psychological Tests and Measurement Instruments for Cross-Cultural Research: An Introduction*. London: Routledge
- Hidayat, C., Putong, I., & Sari, R K. (2014). Interdependensi Strategi Pemasaran Terhadap Kinerja Perusahaan (Suatu Penelitian pada Perusahaan Asuransi Indonesia yang sudah Go Public). *Binus Business Review*, 5(1), 18-27. doi.org/10.21512/bbr.v5i1.1192

- Iba, Z., & Wardhana, A. (2023). *Metode Penelitian*. Purbalingga: Eureka Media Aksara
- Kabir, M M N. (2017). Developing a Checklist for Evaluating Coursebooks: A Case in Retrospection. *BELTA Journal*, 1(1), 175-199. doi.org/ 10.36832/beltaj.2017.0101.09
- Kaplan, R.M., Chambers, D A., & Glasgow, R.E. (2014). Big Data and Large Sample Size: A Cautionary Note on the Potential for Bias. *Clin Trans Sci*, 7, 342-346. doi.org/10.1111/cts.12178
- Kimberlin, C L., & Winterstein, A G. (2008). Validity and Reliability of Measurement Instruments Used in Research. *American Journal of Health-System Pharmacy*, 65(23), 2276-2284. doi.org/10.2146/ajhp070364
- Kim, Yoojung., & Kim, Hyunju. (2016). The Effect of Response Scale Format on Response Distribution and Survey Results in Web Surveys. *Social Science Computer Review*, 34(3), 334-349
- Kreutzer, Ralf T. (2023). *Practice-Oriented Marketing: Basics – Instruments – Case Studies*. Heidelberg, Germany: Springer
- Leedy, Paul D., & Ormrod, Jeanne Ellis. (2021). *Practical Research: Planning and Design*. Boston, MA: Pearson Education Limited
- Li, F C., Li, J., & Wu, B. (2011). Ranking Method of Interval Numbers Based on Quantity Property. *Applied Mechanics and Materials*, 63-64, 25-28. doi.org/10.4028/www.scientific.net/AMM.63-64.25
- Limbanadi, S., Subandi, S., & Munzil, M. (2020). Pengaruh Model Pembelajaran Problem Solving-Think Pair Share terhadap Pengetahuan Metakognitif Siswa. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, 5(6), 774-779. doi.org/10.17977/jptpp.v5i6.13607.
- Mandeep, J S., & Hassan, S I S. (2006). 60- to 1-Min Rainfall-Rate Conversion: Comparison of Existing Prediction Methods with Data Obtained in the Southeast Asia Region. *Journal of Applied Meteorology and Climatology*, 47, 925-930. doi.org/10.1175/2007JAMC1600.1

- Maryatmi, A S., & Rahmayani, S. (2021). The Effect of Perception of Criminality with Insider Using Public Transport on New Students' Faculty of Psychology UPI YAI. *International Journal of Education and Social Science Research*, 4(2), 180-187. doi.org/10.37500/ijessr.2021.4215
- Matsudaira, T. (2006). Measures of Psychological Acculturation: A Review. *Transcultural Psychiatry*, 43(3), 462-487. doi.org/10.1177/1363461506066989
- McClure, Kelly S. (2020). *Selecting and Describing Your Research Instruments (Concise Guides to Conducting Behavioral, Health, and Social Science Research)*. Washington, DC: American Psychological Association
- Pan, G. (2002). Confidence Intervals for Comparing Two Scale Parameters Based on Levene Statistics. *Journal of Nonparametric Statistics*, 14(4), 459-476. doi.org/10.1080/10485250213112
- Putra, I G W S C., Wijaya, R W N., & Noverin, D T. (2022). Perbandingan Pengaruh Promotion Mix Terhadap Keputusan Pembelian Digital Wallet pada E-Marketplace Tokopedia dan Shopee. *BISMA: Jurnal Bisnis dan Manajemen*, 16(1), 1-9. doi.org/10.19184/bisma.v16i1.23972
- Rosario, G., Rundensteiner, E A., Brown, D C., Ward, M O., & Huang, S. (2004). Mapping Nominal Values to Numbers for Effective Visualization. *Information Visualization*, 3(2), 80-95. https://doi.org/10.1057/palgrave.ivs.9500072
- Saha, Lawrence J., & Onwuegbuzie, Anthony J. (2021). *Handbook of Research Methods in Education and the Social Sciences*. Hoboken, NJ: John Wiley & Sons, Inc.
- Siswanti, D N., Daud, M., & Anugrah, D Y. (2022). Efektivitas Pembelajaran Kooperatif Jigsaw dalam Meningkatkan Kecerdasan Linguistik Siswa. *Jurnal Psikologi Talenta*, 8(1), 67-73. doi.org/10.26858/talenta.v8i1.45730

- Spooren, P., Mortelmans, D., & Denekens, J. (2007). Student Evaluation of Teaching Quality in Higher Education: Development of An Instrument Based on 10 Likert-Scales. *Assessment & Evaluation in Higher Education*, 32(6), 667-679. doi:10.1080/02602930601117191
- Velleman, P F., & Wilkinson, L. (1993). Nominal, Ordinal, Interval, and Ratio Typologies are Misleading. *The American Statistician*, 47(1), 65-72. doi:10.1080/00031305.1993.10475938
- Wardhana, Aditya, et al. (2022). *Metodologi Penelitian Kuantitatif, Kualitatif, dan Kombinasi*. Bandung: Media Sains Indonesia.
- Williams, Malcolm., Wiggins, Richard D., et al. (2022). *Beginning Quantitative Research*. Newbury Park, California: SAGE Publication
- Wrench, Jason S., Thomas-Maddox, Candice., et al. (2018). *Quantitative Research Methods for Communication: A Hands-On Approach*. Oxford: Oxford University Press
- Zellatifanny, C M., & Mudjiyanto, B. (2018). Tipe Penelitian Deskripsi Dalam Ilmu Komunikasi. *Diakom*, 1(2), 83-90. <https://doi.org/10.17933/diakom.v1i2.20>

BAB 3 | SKALA NOMINAL DALAM PENELITIAN KUANTITATIF

A. Pengenalan Skala Nominal dalam Pengukuran Variabel Penelitian Kuantitatif

Skala nominal adalah salah satu jenis skala pengukuran dalam penelitian kuantitatif yang digunakan untuk mengelompokkan atau mengkategorikan objek atau individu ke dalam kategori atau label yang berbeda. Skala ini digunakan untuk mengkategorikan data ke dalam kelompok-kelompok yang saling eksklusif, tanpa adanya urutan atau peringkat di antara kelompok-kelompok tersebut. Dalam pengukuran variabel penelitian kuantitatif, skala nominal membantu dalam mengklasifikasikan data ke dalam kategori-kategori yang memiliki nilai yang sama pentingnya. (Iba & Wardhana, 2023; Williams, Wiggins, et al, 2022; Wardhana et al, 2022; Wrench, Thomas-Maddox, et al, 2018; DeCastellarnau, 2017; Bonsteel, 2012).

Dalam skala nominal ini, angka atau nilai yang diberikan pada setiap kategori tidak memiliki urutan atau tingkatan yang bermakna. Artinya, angka atau nilai yang diberikan hanyalah sebagai tanda pengenal untuk mengidentifikasi kategori tersebut. Contohnya, dalam konteks penelitian tentang preferensi warna mobil, peneliti dapat menggunakan skala nominal untuk mengkategorikan responden ke dalam beberapa pilihan warna, seperti "merah", "biru", "hijau", "hitam", dan "putih". Dalam hal ini, angka atau nilai yang diberikan pada setiap kategori tidak memiliki urutan atau tingkatan yang bermakna. Misalnya, warna merah tidak lebih "besar" atau

DAFTAR PUSTAKA

- Agdigo, Marra Angelique H., Etpison, Maria Christine R., Patin, Armila Augustine C., Etrata, Antonio E. (2023). The Impact of Brand Image and Perceived Value on Consumers' Purchasing Behavior of Clothing Lines. *Management Review: An International Journal*, 17(2), 27-45. <https://doi.org/10.55819/mrij.2022.17.2.27>
- Anderson, A., Goel, S., Huber, G A., Malhotra, N., & Watts, D J. (2014). Political Ideology and Racial Preferences in Online Dating. *Sociological Science*, 1(3), 28-40. <https://doi.org/10.15195/v1.a3>
- Aslam, W., Ham, M., & Farhat, K. (2018). Influencing Factors of Brand Perception on Consumers' Repurchase Intention: An Examination of Online Apparel Shopping. *Management: Journal of Contemporary Management Issues*, 23(2), 87-101. <https://doi.org/10.30924/mjcmi/2018.23.2.87>
- Awang, H., Samad, N A., Faiz, N S M., Roddin, R., & Kankia, J D. (2017). Relationship between the Learning Styles Preferences and Academic Achievement. *IOP Conference Series Materials Science and Engineering*, 226(1), 012193. <https://doi.org/10.1088/1757-899x/226/1/012193>
- Bonsteel, S. (2012). APA PsycNET. *Annual Reviews*, 14(1), 16-19. <https://doi.org/10.5260/chara.14.1.16>
- Brata, F W., & Riandoko, R. (2020). Increasing Tax Compliance Through Trust and Power: Empirical Study of Slippery Slope Framework in ASEAN. *Scientax: Jurnal Kajian Ilmiah Perpajakan Indonesia*, 2(1), 27-38. <https://doi.org/10.52869/st.v2i1.53>
- Brezzi, M., González, S., Nguyen, D N., Prats, M., Ader, M., Badr, K., Baredes, B., Baubion, C., Daglio, M., Das-Doyle, C., González-Zapata, F., Jacobzone, S., Matasick, C., Pietikäinen, A., Perez, A R., Saffirio, C., Michalun, V., Fairbrother, M., Guriev, S., & Scott, R J. (2021). An Updated OECD Framework

on Drivers of Trust in Public Institutions to Meet Current and Future Challenges. *OECD Working Papers on Public Governance*, No. 48, OECD Publishing, Paris. <https://doi.org/10.1787/b6c5478c-en>

Chau, P Y. (1999). On The Use of Construct Reliability in MIS Research: A Meta-Analysis. *Information & Management*, 35(4), 217-227. [doi.org/10.1016/s0378-7206\(98\)00089-5](https://doi.org/10.1016/s0378-7206(98)00089-5)

Chovanová, H H., Korshunov, A I., & Babčanová, D. (2015). Impact of Brand on Consumer Behavior. *Procedia Economics and Finance*, 34, 615-621. <https://www.sciencedirect.com/science/article/pii/S2212567115016767>

Colton, David., & Covert, Robert W. (2021). *Designing and Constructing Instruments for Social Research and Evaluation*. Hoboken, NJ: John Wiley & Sons, Inc.

DeCastellarnau, A. (2017). A Classification of Response Scale Characteristics That Affect Data Quality: A Literature Review. *Qual Quant*, 52, 1523-1559 <https://doi.org/10.1007/s11135-017-0533-4>

Dodds, W B., Monroe, K B., & Grewal, D. (2023). Effects of Price, Brand, and Store Information on Buyers' Product Evaluations. *Journal of Marketing Research*, 28(3), 307-319. <https://journals.sagepub.com/doi/10.1177/002224379102800305>

Dwiyanti, N K N., & Hartini, N M. (2021). Pengaruh Kualitas Produk, Harga, Promosi dan Distribusi Terhadap Keputusan Pembelian Teh Kemasan Siap Minum Merek Teh Pucuk Harum di Dalung. *Journal Research of Management (JARMA)*, 3(1), 66-76. doi.org/10.51713/jarma.v3i1.61

Elliott, D. (2020). Selecting Music for Exercise: The Music Preferences of UK Exercisers. *Cogent Psychology*, 7(1), 1802928. <https://doi.org/10.1080/23311908.2020.1802928>

- Elvers, P., Omigie, D., Fuhrmann, W., & Fischinger, T. (2015). Exploring The Musical Taste of Expert Listeners: Musicology Students Reveal Tendency Toward Omnivorous Taste. *Frontier in Psychology*, 6, 1-11. <https://doi.org/10.3389/fpsyg.2015.01252>
- Erni, E., Mohamad, M., Azhar, F., & Syahfutra, W. (2023). Tertiary Indonesian EFL Learners' Learning Style in Reading Hypermedia Material. *Arab World English Journals*, 14(2), 344-359. <https://doi.org/10.24093/awej/vol14no2.24>
- Fowler, A. (2015). Regular Voters, Marginal Voters and the Electoral Effects of Turnout. *Political Science Research and Methods*, 3(2), 205-219. <https://doi.org/10.1017/psrm.2015.18>
- Gosling, P R S. (2003). The Do Re Mi's of Everyday Life: The Structure and Personality Correlates of Music Preferences. *Semantic Scholar*. <https://www.semanticscholar.org/paper/The-do-re-mi's-of-everyday-life%3A-the-structure-and-Rentfrow-Gosling/136453addebb04b046e06a524c19fa4e891ea7ae>
- Greenberg, D M., Baron-Cohen, S., Stillwell, D., Kosinski, M., & Rentfrow, P J. (2015). Musical Preferences are Linked to Cognitive Styles. *PLOS ONE*, 10(7), e0131151. <https://doi.org/10.1371/journal.pone.0131151>
- Handbook of Descriptive Statistics/Types of Statistical Variables. (2017). https://en.wikibooks.org/wiki/Handbook_of_Descriptive_Statistics/Types_of_Statistical_Variables
- Hidayat, C., Putong, I., & Sari, R K. (2014). Interdependensi Strategi Pemasaran Terhadap Kinerja Perusahaan (Suatu Penelitian pada Perusahaan Asuransi Indonesia yang sudah Go Public). *Binus Business Review*, 5(1), 18-27. doi.org/10.21512/bbr.v5i1.1192

- Hu, M., Gao, J., & Wang, S. (2017). How Do Consumers Make Online Brand Decision? *2017 International Conference on Service Systems and Service Management*, Dalian, 2017, 1-6. <https://doi.org/10.1109/icsssm.2017.7996268>
- Iba, Zainuddin., & Wardhana, Aditya. (2023). *Metode Penelitian*. Purbalingga: Eureka Media Aksara
- Johns, M., & Rosenthal, J. (2022). *How Investing in Public Health Will Strengthen America's Health*. <https://www.americanprogress.org/article/how-investing-in-public-health-will-strengthen-americas-health/>
- Kołota, A., & Głąbska, D. (2023). Analysis of Determinants of Food Preferences in a Polish Population-Based Sample of Primary School Adolescents: Diet and Activity of Youth during COVID-19 (DAY-19) Study. *Nutrients*, 15(11), 2504. <https://doi.org/10.3390/nu15112504>
- Kreutzer, Ralf T. (2023). *Practice-Oriented Marketing: Basics – Instruments – Case Studies*. Heidelberg, Germany: Springer
- Kristensen, K., Martensen, A., Grønholdt, L., & Plads, S. (2000). Measuring Customer Satisfaction: A Key Dimension of Business Performance. *International Journal of Business Performance Management*, 2(1), 157-170. <https://doi.org/10.1504/ijbpm.2000.000074>
- Lai, C., Sung, C Y., Jong, B S., & Lee, P F. (2011). The Impact of Peer Interaction on Group Strategy in Cooperative Learning Environment. *Advanced Materials Research*, 271-273, 1213-1218. <https://doi.org/10.4028/www.scientific.net/amr.271-273.1213>
- Landrum, T J., & Landrum, K M. (2016). Learning Styles, Learning Preferences, and Student Choice: Implications for Teaching. *Instructional Practices with and without Empirical Validity (Advances in Learning and Behavioral Disabilities)*, 29, 135-152 <https://doi.org/10.1108/s0735-004x2016000029006>

- Latreyi, S M., Mirhadyan, L., Pasha, A., & Leili, E K. (2020). Junk Food Consumption among High School Students in Iran: The Role of Food Advertising. *Journal of Holistic Nursing and Midwifery*, 30(2), 70-77. <https://doi.org/10.32598/jhnm.30.2.70>
- Limbanadi, S., Subandi, S., & Munzil, M. (2020). Pengaruh Model Pembelajaran Problem Solving-Think Pair Share terhadap Pengetahuan Metakognitif Siswa. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, 5(6), 774-779. doi.org/10.17977/jptpp.v5i6.13607.
- Mariska, A., Soesanto, H., & Mahfudz, M. (2019). The Effect of Brand Reputation, Product Reliability, Price, and Brand Admiration on Purchasing Decision (Study on Food Products that Sold through Instagram at Semarang). *Jurnal Sains Pemasaran Indonesia (Indonesian Journal of Marketing Science)*, 17(3), 164-176 <https://doi.org/10.14710/jspi.v17i3.164-176>
- Maryatmi, A S., & Rahmayani, S. (2021). The Effect of Perception of Criminality with Insider Using Public Transport on New Students' Faculty of Psychology UPI YAI. *International Journal of Education and Social Science Research*, 4(2), 180-187. doi.org/10.37500/ijessr.2021.4215
- Neuroscientia. (2017). 101 Variables to Work with in Psychological Research. *Neuro Scientia*. <https://www.neuroscientia.com/2017/04/101-variables-to-work-with-in-psychological-research.html>
- Olsen, M E. (1972). Social Participation and Voting Turnout: A Multivariate Analysis. *Comparative Political Studies*, 12(2), 229-256. <https://doi.org/10.2307/2093471>
- Philiastides, M G., & Ratcliff, R. (2013). Influence of Branding on Preference-Based Decision Making. *Psychology of Science*, 24(7), 1208-1215 <https://doi.org/10.1177/0956797612470701>

- Powell, P., Durham, J., & Lawler, S. (2019). Food Choices of Young Adults in the United States of America: A Scoping Review. *Advanced Nutrition*, 10(3), 479-488. <https://doi.org/10.1093/advances/nmy116>
- Putra, I G W S C., Wijaya, R W N., & Noverin, D T. (2022). Perbandingan Pengaruh Promotion Mix Terhadap Keputusan Pembelian Digital Wallet pada E-Marketplace Tokopedia dan Shopee. *BISMA: Jurnal Bisnis dan Manajemen*, 16(1), 1-9. doi.org/10.19184/bisma.v16i1.23972
- Records, K., Keller, C., Ainsworth, B E., & Permana, P A. (2012). Instrument Selection for Randomized Controlled Trials: Why This and Not That? *Contemp Clin Trials*, 33(1), 143-50. <https://doi.org/10.1016/j.cct.2011.09.006>
- Rentfrow, P J., Goldberg, L R., & Levitin, D J. (2011). The Structure of Musical Preferences: A Five-Factor Model. *Journal of Personality and Social Psychology*, 100(6), 1139-1157. <https://doi.org/10.1037/a0022406>
- Reynolds, M C., Zetlin, A G., & Wang, M C. (1993). 20/20 Analysis: Taking a Close Look at the Margins. *Exceptional Children*, 59(4), 294-300. <https://doi.org/10.1177/001440299305900402>
- Robbins, Stephen., Coulter, Mary., Cenzo, D.D. 2019. *Fundamentals of Management*. New York: Pearson.
- Rosario, G., Rundensteiner, E A., Brown, D C., Ward, M O., & Huang, S. (2004). Mapping Nominal Values to Numbers for Effective Visualization. *Information Visualization*, 3(2), 80-95. <https://doi.org/10.1057/palgrave.ivs.9500072>
- Saha, Lawrence J., & Onwuegbuzie, Anthony J. (2021). *Handbook of Research Methods in Education and the Social Sciences*. Hoboken, NJ: John Wiley & Sons, Inc.
- Sapkota, S D., & Neupane, S. (2018). Junk Food Consumption Among Secondary Level Students, Chitwan. *Journal of Nepal Paediatric Society*, 37(2), 147/ <https://doi.org/10.3126/jnps.v37i2.17081>

- Savelli, E., Murmura, F., Liberatore, L., Casolani, N., & Bravi, L. (2017). Consumer Attitude and Behaviour Towards Food Quality Among The Young Ones: Empirical Evidences from A Survey. *Total Quality Management & Business Excellence*, 30(1-2), 1-15. <https://doi.org/10.1080/14783363.2017.1300055>
- Saxena, S., & Parikh, D. (2006). If It Glitters, Is It Gold? Scale Evaluation in Marketing Research. *Asia-Pacific Journal of Management Research and Innovation*, 2(1), 73-87. <https://doi.org/10.1177/097324700600200108>
- Sherlock, J., Grainger, R., McDonald, S., & Daly, M. (2022). *Transparency: A Tool to Build Election Trust*. <https://www.behavioraleconomics.com/transparency-a-tool-to-build-election-trust/>
- Siswanti, D N., Daud, M., & Anugrah, D Y. (2022). Efektivitas Pembelajaran Kooperatif Jigsaw dalam Meningkatkan Kecerdasan Linguistik Siswa. *Jurnal Psikologi Talenta*, 8(1), 67-73. doi.org/10.26858/talenta.v8i1.45730
- Smith, A C H., Fildes, A., Cooke, L., Herle, M., Shakeshaft, N G., Plomin, R., & Llewellyn, C. (2016). Genetic and Environmental Influences on Food Preferences in Adolescence. *The American Journal of Clinical Nutrition*, 104(2), 446-453. <https://doi.org/10.3945/ajcn.116.133983>
- Soland, J. (2016). Is Teacher Value Added a Matter of Scale? The Practical Consequences of Treating an Ordinal Scale as Interval for Estimation of Teacher Effects. *Applied Measurement in Education*, 30(1), 52-70. <https://doi.org/10.1080/08957347.2016.1247844>
- Sturgis, P., & Smith, P. (2010). Fictitious Issues Revisited: Political Interest, Knowledge and the Generation of Nonattitudes. *Political Studies*, 58(02), 66-84. <https://doi.org/10.1111/j.1467-9248.2008.00773.x>

- Suchánek, P., Richter, J., & Křálová, M. (2015). Customer Satisfaction, Product Quality and Performance of Companies. *Review of Economic Perspectives*, 14(4), 329-344. <https://doi.org/10.1515/revecp-2015-0003>
- Sun, S., He, J., & Fan, X. (2019). Mapping and Predicting Patterns of Chinese Adolescents' Food Preferences. *Nutrients*, 11(9), 2124. <https://doi.org/10.3390/nu11092124>
- Vekaria, J. (2023). *Complete Guide to Customer Value and Satisfaction in 2023*. <https://www.softwaresuggest.com/blog/complete-guide-to-customer-value-and-satisfaction/>
- Walle, S V D., Roosbroek, S V., & Bouckaert, G. (2008). Trust in The Public Sector: Is There Any Evidence for A Long-term Decline? *International Review of Administrative Sciences*, 74(1), 47-64. <https://doi.org/10.1177/0020852307085733>
- Wardhana, Aditya, et al. (2023). *Manajemen Sumber Daya Manusia Di Era Digital*. Purbalingga: Eureka Media Aksara
- Wardhana, Aditya, et al. (2022). *Metodologi Penelitian Kuantitatif, Kualitatif, dan Kombinasi*. Bandung: Media Sains Indonesia.
- Ward, P., Miller, E R., Pearce, A R., & Meyer, S B. (2016). Predictors and Extent of Institutional Trust in Government, Banks, the Media and Religious Organisations: Evidence from Cross-Sectional Surveys in Six Asia-Pacific Countries. *PLOS ONE*, 11(10), e0164096. <https://doi.org/10.1371/journal.pone.0164096>
- Williams, Malcolm., Wiggins, Richard D., et al. (2022). *Beginning Quantitative Research*. Newbury Park, California: SAGE Publication
- Wrench, Jason S., Thomas-Maddox, Candice., et al. (2018). *Quantitative Research Methods for Communication: A Hands-On Approach*. Oxford: Oxford University Press
- Wu, C C. (2022). Developing and Validating the Teacher Rating Scale of Learning Interest for Kindergarteners. <https://doi.org/10.3389/fpsyg.2022.890328>

- Yu, X., Wojcieszak, M., & Casas, A. (2023). Partisanship on Social Media: In-Party Love Among American Politicians, Greater Engagement with Out-Party Hate Among Ordinary Users. *Political Behavior*, 71(1), 1-21. <https://doi.org/10.1007/s11109-022-09850-x>
- Zellatifanny, C M., & Mudjiyanto, B. (2018). Tipe Penelitian Deskripsi Dalam Ilmu Komunikasi. *Diakom*, 1(2), 83-90. <https://doi.org/10.17933/diakom.v1i2.20>
- Zubarjan, R., & Idris, I. (2021). Influence of Product, Price and Promotion on Purchase Decision of Toyota Agya Car with Brand Image as Intervening Variables in Padang City. *Advances in Economics, Business and Management Research*, 179, 652-656. <https://doi.org/10.2991/aebmr.k.210616.100>

BAB 4

SKALA ORDINAL DALAM PENELITIAN KUANTITATIF

A. Pengertian Skala Ordinal dalam Pengukuran Variabel Penelitian Kuantitatif

Dalam penelitian yang berfokus pada data kuantitatif, skala ordinal adalah jenis instrumen pengukuran yang memungkinkan penilaian berdasarkan urutan atau peringkat, namun tidak memberikan informasi tentang jarak atau perbedaan antara nilai-nilai tersebut. Hal ini berarti bahwa skala ordinal dapat membandingkan nilai dalam urutan tertentu, tetapi tidak dapat menentukan perbedaan numerik antara mereka. Skala ini umumnya digunakan untuk mengukur variabel subjektif atau kualitatif yang dapat diurutkan berdasarkan tingkat intensitasnya. Selain itu, skala ordinal dapat digunakan sebagai variabel independen atau dependen dalam analisis statistik, seperti penggunaan dalam uji Mann-Whitney atau uji Wilcoxon (Williams, Wiggins, et al, 2022; Harkiolakis, 2017; Wardhana et al, 2022; Saha, & Onwuegbuzie, 2021).

Skala ordinal merupakan alat pengukuran yang digunakan untuk menyusun atau mengelompokkan objek atau individu berdasarkan urutan atau kategori tertentu. Dalam skala ini, nilai yang diberikan pada setiap kategori menunjukkan posisi relatif atau peringkat, namun jarak antara peringkat tidaklah tetap atau terukur. Sebagai contoh, dalam penelitian kepuasan pelanggan terhadap layanan restoran, peneliti dapat menggunakan skala ordinal seperti "sangat tidak puas", "tidak puas", "netral", "puas", dan "sangat puas". Meskipun "sangat tidak puas" memiliki peringkat lebih rendah daripada "sangat

DAFTAR PUSTAKA

- Ali, M J., Karim, M M., Hitoishi, B I., Wafik, H M A., & Islam, K M A. (2020). Determinants of Consumers' Purchase Intention to Buy Smartphones Online. *Innovative Marketing*, 18(2), 109-119. [https://doi.org/10.21511/im.18\(2\).2022.10](https://doi.org/10.21511/im.18(2).2022.10)
- Aminta, D I., Santoso, D., & Flurentin, E. (2023). Prokrastinasi Akademik Mahasiswa Bimbingan dan Konseling Universitas Negeri Malang. *Jurnal Pembelajaran Bimbingan dan Pengelolaan Pendidikan*, 3(3), 215-221. <https://doi.org/10.17977/um065v3i32023p215-221>
- Arikunto, Suharsimi. (2019). *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta
- Barus, G. (2022). Mengulik Tiga Faktor Pendukung Percepatan Penulisan Skripsi Mahasiswa. *Scholaria Jurnal Pendidikan dan Kebudayaan*, 12(2), 96-108. <https://doi.org/10.24246/j.js.2022.v12.i2.p96-108>
- Bos, L., Molin, E., Timmermans, H., & Heijden, R V D. (2003). Cognition and Relative Importance Underlying Consumer Valuation of Park-and-Ride Facilities. *Transportation Research Record*, 1835(1), 121-127. <https://doi.org/10.3141/1835-15>
- Brown, N., Jacoby-Senghor, D S., & Raymundo, I. (2022). If You Rise, I Fall: Equality is Prevented by The Misperception That It Harms Advantaged Groups. *Science Advances*, 8(18), 2385. <https://doi.org/10.1126/sciadv.abm2385>
- Chen, X., Wei, B., & Wu, Y. (2008). A Method of Ranking Based on Interval Order Number. *2008 Fifth International Conference on Fuzzy Systems and Knowledge Discovery*, 122-126. doi: 10.1109/FSKD.2008.392.
- Clark, H., Cárdenas, M., Dybul, M., Kazatchkine, M D., Liu, J., Miliband, D., Nordström, A., Sudan, P., Zedillo, E., Obaid, T A., McCarney, R A., Radin, E., Elias, M K., McNab, C., Legido-Quigley, H., & Sirleaf, E J. (2022). Transforming or

- Tinkering: The World Remains Unprepared for The Next Pandemic Threat. *Lancet*, 399(10340), 1995-1999. [https://doi.org/10.1016/s0140-6736\(22\)00929-1](https://doi.org/10.1016/s0140-6736(22)00929-1)
- Clulow, V., & Reimers, V. (2009). How do Consumers Define Retail Centre Convenience? *Australasian Marketing Journal (AMJ)*, 17(3), 125-132. <https://doi.org/10.1016/j.ausmj.2009.05.015>
- Colton, David., & Covert, Robert W. (2021). *Designing and Constructing Instruments for Social Research and Evaluation*. Hoboken, NJ: John Wiley & Sons, Inc.
- Edwards, A. L., & Kenney, K. C. (1946). A Comparison of The Thurstone and Likert Techniques of Attitude Scale Construction. *Journal of Applied Psychology*, 30, 72-83. <https://doi.org/10.1037/h0062418>
- Fidler, R Y., Ahmadi, G N., Amkieltiela., Ahmad, A., Cox, C E., Estradivari, E., Glew, L., Handayani, C N., Mahajan, S L., Mascia, M B., Pakiding, F., Andradi-Brown, D A., Campbell, S J., Claborn, K., Nardo, M D., Fox, H., Gill, D., Hidayat, N I, Jakub, R., . . . Harborne, A R. (2022). Participation, Not Penalties: Community Involvement and Equitable Governance Contribute to More Effective Multiuse Protected Areas. *Science Advances*, 8(18), eabl8929. <https://doi.org/10.1126/sciadv.abl8929>
- Gao, Yuan., et al. (2020). A Comparison of Qualitative and Quantitative Measurement Instruments for Urban Public Space Quality. *Sustainability*, 12(10), 1-16
- Grace-Martin, Karen A., & Meyer, Jeff. (2012). How to Use Likert Scales and Other Ordinal Data in Regression Analysis. *The Journal of Statistics Education*, 20(2), 1-24
- Grinnell Jr., Richard M., & Unrau, Yvonne A. (2020). *Social Work Research and Evaluation: Quantitative and Qualitative Approaches*. New York, NY: Oxford University Press

- Guttman, L. (1947). The Cornell Technique for Scale and Intensity Analysis. *Educational and Psychological Measurement*, 7(2), 247-279. <https://doi.org/10.1177/001316444700700204>
- Harkiolakis, Nicholas. (2017). *Quantitative Research Methods: From Theory to Publication*. Washington: CreateSpace Independent Publishing Platform
- Iba, Z., & Wardhana, A. (2023). *Metode Penelitian*. Purbalingga: Eureka Media Aksara
- Kabir, M M N. (2017). Developing a Checklist for Evaluating Coursebooks: A Case in Retrospection. *BELTA Journal*, 1(1), 175-199. [doi.org/ 10.36832/beltaj.2017.0101.09](https://doi.org/10.36832/beltaj.2017.0101.09)
- Kim, Yoojung., & Kim, Hyunju. (2016). The Effect of Response Scale Format on Response Distribution and Survey Results in Web Surveys. *Social Science Computer Review*, 34(3), 334-349
- Kreutzer, Ralf T. (2023). *Practice-Oriented Marketing: Basics – Instruments – Case Studies*. Heidelberg, Germany: Springer
- Leedy, Paul D., & Ormrod, Jeanne Ellis. (2021). *Practical Research: Planning and Design*. Boston, MA: Pearson Education Limited
- Li, F C., Li, J., & Wu, B. (2011). Ranking Method of Interval Numbers Based on Quantity Property. *Applied Mechanics and Materials*, 63-64, 25-28. doi.org/10.4028/www.scientific.net/AMM.63-64.25
- Limbanadi, S., Subandi, S., & Munzil, M. (2020). Pengaruh Model Pembelajaran Problem Solving-Think Pair Share terhadap Pengetahuan Metakognitif Siswa. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, 5(6), 774-779. doi.org/10.17977/jptpp.v5i6.13607.
- Litman, T. (2008). Valuing Transit Service Quality Improvements. *Journal of Public Transportation*, 11(2), 43-63. <https://doi.org/10.5038/2375-0901.11.2.3>

- Liu, G. (2007). A Behavioral Model of Work-Trip Mode Choice in Shanghai. *China Economic Review*, 18(4), 456-476. <https://doi.org/10.1016/j.chieco.2006.09.001>
- Maffioletti, A., Maida, A., & Scacciati, F. (2014). *More Terminological and Methodological Problems in Measuring Happiness, Life Satisfaction and Well-Being: Some First Empirical Results*. In book: *The Pursuit of Happiness and the Traditions of Wisdom* (pp.13-21). https://doi.org/10.1007/978-3-319-04744-7_2
- Marua, S., & Etikariena, A. (2021). Hubungan Knowledge-Sharing dan Kreativitas Karyawan: Peran Budaya Organisasi Pembelajaran sebagai Moderator. *Jurnal Psikologi*, 17(2), 127-138. <https://doi.org/10.24014/jp.v17i2.12004>
- Maryatmi, A S., & Rahmayani, S. (2021). The Effect of Perception of Criminality with Insider Using Public Transport on New Students' Faculty of Psychology UPI YAI. *International Journal of Education and Social Science Research*, 4(2), 180-187. doi.org/10.37500/ijessr.2021.4215
- Massof, R W. (2004). Likert and Guttman Scaling of Visual Function Rating Scale Questionnaires. *Ophthalmic Epidemiology*, 11(5), 381-99. <https://doi.org/10.1080/09286580490888771>
- McClure, Kelly S. (2020). *Selecting and Describing Your Research Instruments (Concise Guides to Conducting Behavioral, Health, and Social Science Research)*. Washington, DC: American Psychological Association
- Meixell, M J., & Norbis, M. (2008). A Review of The Transportation Mode Choice and Carrier Selection Literature. *The International Journal of Logistics Management*, 19(2), 183-211. <https://doi.org/10.1108/09574090810895951>
- Muhtadi, A., Mochtar, I B., & Widyastuti, H. (2020). Revealed Preference Survey Indicators of Public Transport Use in Various Continent. 2020 *IOP Conference. Series: Earth and*

Environmental Sciences, 562, 012003.
<https://doi.org/10.1088/1755-1315/562/1/012003>

- Ni'Am, M M., Maharani, A., & Fauzi, A. (2021). Dinamika Gaya Kepemimpinan Tangkas, Motivasi, Kinerja dan Kepuasan Kerja di Perusahaan Perkebunan. *ISIP (Jurnal Ilmu Sosial dan Pendidikan)*, 5(3), 14-22.
<https://doi.org/10.58258/jisip.v5i3.2015>
- Pramono, A., & Oppewal, H. (2021). Where To Refuel: Modeling On-The-Way Choice of Convenience Outlet. *Journal of Retailing and Consumer Services*, 61, 1-44.
<https://doi.org/10.1016/j.jretconser.2021.102572>
- Pratiwi, M R., Rosalia, N., & Aliya, F N. (2020). Interpersonal Communication Factors Forming Supportive Learning Environments At Dian Nuswantoro University Semarang. *Profetik Jurnal Komunikasi*, 13(1), 117.
<https://doi.org/10.14421/pjk.v13i1.1723>
- Putra, I G W S C., Wijaya, R W N., & Noverin, D T. (2022). Perbandingan Pengaruh Promotion Mix Terhadap Keputusan Pembelian Digital Wallet pada E-Marketplace Tokopedia dan Shopee. *BISMA: Jurnal Bisnis dan Manajemen*, 16(1), 1-9. doi.org/10.19184/bisma.v16i1.23972
- Putri, U N. (2021). Penggunaan Exploratory Factor Analysis (EFA) untuk Pengembangan Skala Kecemasan Statistik dalam Pendidikan. *Psychocentrum Review*, 3(2), 153-163.
<https://doi.org/10.26539/pcr.32686>
- Rochman, B., Indahwati, N., & Priambodo, A. (2020). Identifikasi Keterlaksanaan Pembelajaran PJOK Tingkat SMP Di Masa Pandemi Covid 19 Se-Kabupaten Sidoarjo. *Jurnal Ilmiah Mandala Education*, 6(1), 257-265.
<https://doi.org/10.36312/jime.v6i1.1343>
- Saha, Lawrence J., & Onwuegbuzie, Anthony J. (2021). *Handbook of Research Methods in Education and the Social Sciences*. Hoboken, NJ: John Wiley & Sons, Inc.

- Schwarzlose, A A I., Mjelde, J W., Dudensing, R M., Jin, Y., Cherrington, L., & Chen, J. (2014). Willingness To Pay for Public Transportation Options for Improving The Quality of Life of The Rural Elderly. *Transportation Research Part A Policy and Practice*, 61, 1-14. <https://doi.org/10.1016/j.tra.2013.12.009>
- Spooren, P., Mortelmans, D., & Denekens, J. (2007). Student Evaluation of Teaching Quality in Higher Education: Development of An Instrument Based on 10 Likert-Scales. *Assessment & Evaluation in Higher Education*, 32(6), 667-679. doi:10.1080/02602930601117191
- Suah, J L., Tng, B H., Tok, P S K., Husin, M., Thevananthan, T., Peariasamy, K M., & Sivasampu, S. (2022). Real-World Effectiveness of Homologous and Heterologous BNT162b2, CoronaVac, and AZD1222 Booster Vaccination Against Delta and Omicron SARS-CoV-2 Infection. *Emerging Microbes & Infections*, 11(1), 1343-1345. <https://doi.org/10.1080/22221751.2022.2072773>
- Subur, S. (2017). Early Childhood, Characteristic and Creative-Social Development. *Ijtimā iyya Journal of Muslim Society Research*, 2(1), 129-152. <https://doi.org/10.24090/ijtimaiyya.v2i1.1104>
- Taherdoost, H. (2019). *What Is the Best Response Scale for Survey and Questionnaire Design; Review of Different Lengths of Rating Scale / Attitude Scale / Likert Scale*. <https://hal.archives-ouvertes.fr/hal-03741841>
- Teoh, L E., & Khoo, H L. (2012). Investigating The Impacts of Budget Airlines Towards The Mode Choice Decision of Business Travellers: A Case Study of Klang Valley, Malaysia. *2012 IEEE Conference on Sustainable Utilization and Development in Engineering and Technology (STUDENT)*, Kuala Lumpur, Malaysia, 2012, 46-51. <https://doi.org/10.1109/student.2012.6408363>

- Velleman, P F., & Wilkinson, L. (1993). Nominal, Ordinal, Interval, and Ratio Typologies are Misleading. *The American Statistician*, 47(1), 65-72. doi:10.1080/00031305.1993.10475938
- Vine, S L., Adamou, O., & Polak, J. (2014). Predicting New Forms of Activity/Mobility Patterns Enabled by Shared-Mobility Services Through A Needs-Based Stated-Response Method: Case Study of Grocery Shopping. *Transport Policy*, 32(C), 60-68 <https://doi.org/10.1016/j.tranpol.2013.12.008>
- Wardhana, Aditya, et al. (2022). *Metodologi Penelitian Kuantitatif, Kualitatif, dan Kombinasi*. Bandung: Media Sains Indonesia.
- Williams, Malcolm., Wiggins, Richard D., et al. (2022). *Beginning Quantitative Research*. Newbury Park, California: SAGE Publication
- Wrench, Jason S., Thomas-Maddox, Candice., et al. (2018). *Quantitative Research Methods for Communication: A Hands-On Approach*. Oxford: Oxford University Press
- Yuliasuti, I A N., Kepramareni, P., Bhegawati, D A S., & Purnawati, N L G P. (2022). The Use of E-Money During the Covid-19 Pandemic: Attitudes and Interests of Balinese People. *MIX: Jurnal Ilmiah Manajemen*, 12(1), 117-127. https://doi.org/10.22441/jurnal_mix.2022.v12i1.009
- Zurriyati, Z., Nastasia, K., & Okfrima, R. (2020). Hubungan antara Perceived Organizational Support dengan Kinerja Karyawan Bidang Produksi di PT Batanghari Barisan Padang. *Psyche 165 Journal*, 13(2), 190-196. <https://doi.org/10.35134/jpsy165.v13i2.68>

BAB 5

SKALA INTERVAL DALAM PENELITIAN KUANTITATIF

A. Pengertian Skala Interval dalam Pengukuran Variabel Penelitian Kuantitatif

Skala interval adalah skala pengukuran penting yang digunakan dalam statistik yang memiliki karakteristik yang berbeda.

1. Skala interval memiliki unit yang jelas dan terukur, yang membuatnya mudah untuk mengukur data.
2. Skala interval memiliki titik nol atau titik referensi absolut, memberikan titik awal yang pasti.
3. Skala interval memiliki interval yang berarti, yang berarti bahwa ada jarak yang konsisten antara setiap nilai, sehingga lebih mudah untuk membandingkan data.
4. Skala interval memungkinkan peneliti untuk melakukan operasi matematika dasar, termasuk penambahan, pengurangan, perkalian, dan pembagian, untuk menganalisis nilai-nilai matematis.
5. Skala interval memberdayakan peneliti untuk melakukan analisis statistik seperti mean, median, dan standar deviasi untuk menggambarkan karakteristik sampel, menjadikannya alat yang sangat diperlukan untuk penelitian statistik.
6. Skala interval juga memungkinkan dilakukannya berbagai analisis statistik seperti uji-t, regresi, dan analisis variansi yang memerlukan data dengan sifat interval. Oleh karena itu, untuk memahami dan mengukur variabel dalam penelitian kuantitatif dengan lebih akurat, pemilihan skala interval sangatlah penting.

DAFTAR PUSTAKA

- Abirami, C., Magesh, N., & Yamini, J. (2020). Initial Bounds for Certain Classes of Bi-Univalent Functions Defined by Horadam Polynomials. *Abstract and Applied Analysis*, 2020(10), 1-8. <https://doi.org/10.1155/2020/7391058>
- Allanson, P E., & Notar, C E. (2020). Statistics As Measurement: 4 Scales/Levels of Measurement. *Education Quarterly Reviews*, 3(3), 375-385. <https://eric.ed.gov/?id=EJ1274528>
- Brown, N., Jacoby-Senghor, D S., & Raymundo, I. (2022). If You Rise, I Fall: Equality is Prevented by The Misperception That It Harms Advantaged Groups. *Science Advances*, 8(18), 2385. <https://doi.org/10.1126/sciadv.abm2385>
- Chen, X., Wei, B., & Wu, Y. (2008). A Method of Ranking Based on Interval Order Number. *2008 Fifth International Conference on Fuzzy Systems and Knowledge Discovery*, 122-126. doi: 10.1109/FSKD.2008.392.
- Chhabra, C. (2014). Improvements in the Bisection Method of Finding Roots of An Equation. *2014 IEEE International Advance Computing Conference (IACC)*, Gurgaon, India, 2014, 11-16. <https://doi.org/10.1109/iadcc.2014.6779287>
- Chyung, S Y Y., Swanson, I., Roberts, K., & Hankinson, A. (2018). *Evidence-Based Survey Design: The Use of Continuous Rating Scales in Surveys*. <https://onlinelibrary.wiley.com/doi/10.1002/pfi.21763>
- El-Deeb, S M. (2020). Maclaurin Coefficient Estimates for New Subclasses of Bi-univalent Functions Connected with a q-Analogue of Bessel Function. *Abstract and Applied Analysis*, 2020(10), 1-7. <https://www.hindawi.com/journals/aaa/2020/8368951/>
- Finstad, K. (2010). Response Interpolation and Scale Sensitivity: Evidence Against 5-Point Scales. *JUS: Journal of Usability Studies*, 5(3), 104-110.

https://dl.acm.org/ft_gateway.cfm?id=2835437&ftid=1632947&dwn=1

- Iba, Z., & Wardhana, A. (2023). *Metode Penelitian*. Purbalingga: Eureka Media Aksara
- Jeffrey, D J. (1994). The Importance of Being Continuous. *Mathematics Magazine*, 67(4), 294-300. <https://doi.org/10.1080/0025570x.1994.11996235>
- Kemp, S., & Grace, R C. (2021). Using Ordinal scales in Psychology. *Methods in Psychology*, 5, 100054. <https://doi.org/10.1016/j.metip.2021.100054>
- Kim, Yoojung., & Kim, Hyunju. (2016). The Effect of Response Scale Format on Response Distribution and Survey Results in Web Surveys. *Social Science Computer Review*, 34(3), 334-349
- Magesh, N., Abirami, C., & Balaji, V K. (2020). Certain Classes of Bi-Univalent Functions Related to Shell-like Curves Connected with Fibonacci Numbers. *Afrika Matematika*, 32, 185-198. <https://doi.org/10.1007/s13370-020-00819-9>
- Marzi, G., Balzano, M., & Marchiori, D. (2024). K-Alpha Calculator-Krippendorff's Alpha Calculator: A User-Friendly Tool for Computing Krippendorff's Alpha Inter-Rater Reliability Coefficient. *MethodsX*, 12, 102545. <https://doi.org/10.1016/j.mex.2023.102545>
- McClure, Kelly S. (2020). *Selecting and Describing Your Research Instruments (Concise Guides to Conducting Behavioral, Health, and Social Science Research)*. Washington, DC: American Psychological Association
- Lane, J D., & Ledford, J R. (2014). Using Interval-Based Systems to Measure Behavior in Early Childhood Special Education and Early Intervention. *Topics in Early Childhood Special Education*, 34(2), 83-93. <https://doi.org/10.1177/0271121414524063>
- Paraskevopoulos, A. (2022). *Simple Continued Fractions an Approach for High School Students*. <https://doi.org/10.48550/arXiv.2211>.

- Pohl, N F. (1981). Scale Considerations in Using Vague Quantifiers. *The Journal of Experimental Education*, 49(4), 235-240. <https://doi.org/10.1080/00220973.1981.11011790>
- Pratiwi, M R., Rosalia, N., & Aliya, F N. (2020). Interpersonal Communication Factors Forming Supportive Learning Environments At Dian Nuswantoro University Semarang. *Profetik Jurnal Komunikasi*, 13(1), 117. <https://doi.org/10.14421/pjk.v13i1.1723>
- Rattray, J., & Jones, M. (2007). Essential Elements of Questionnaire Design and Development. *Journal of Clinical Nursing*, 16(2), 234-243. <https://doi.org/10.1111/j.1365-2702.2006.01573.x>
- Sabir, P. (2023). *Coefficient Estimate Problems for Certain Subclasses of m-Fold Symmetric Bi-Univalent Functions Associated with the Ruscheweyh Derivative*. <https://export.arxiv.org/pdf/2304.11571v1.pdf>
- Velleman, P F., & Wilkinson, L. (1993). Nominal, Ordinal, Interval, and Ratio Typologies are Misleading. *The American Statistician*, 47(1), 65-72. doi:10.1080/00031305.1993.10475938
- Wardhana, Aditya, et al. (2022). *Metodologi Penelitian Kuantitatif, Kualitatif, dan Kombinasi*. Bandung: Media Sains Indonesia.
- Williams, Malcolm., Wiggins, Richard D., et al. (2022). *Beginning Quantitative Research*. Newbury Park, California: SAGE Publication
- Zhou, K., & Siadat, V. (2017). *Notes on Harmonic Analysis Part I: The Fourier Transform*. <https://doi.org/10.48550/arxiv.1709.03377>

BAB 6

SKALA RASIO DALAM PENELITIAN KUANTITATIF

A. Pengertian Skala Rasio dalam Pengukuran Variabel Penelitian Kuantitatif

Skala rasio adalah jenis skala pengukuran yang memiliki atribut unik. Karakteristik skala rasio yaitu:

1. Skala rasio memiliki titik nol yang memiliki signifikansi besar dan tidak dapat diabaikan atau dianggap sebagai nilai lain. Contoh umum penggunaan skala rasio dalam penelitian kuantitatif adalah dalam pengukuran panjang, berat, suhu, usia, waktu, nilai uang, jarak, periode waktu, jumlah anak, tingkat fertilitas, mortalitas, kematian, usia, pengangguran, perceraian, penghasilan keluarga, dan pendidikan, di mana nilai nol memiliki makna yang penting. Contoh penggunaan skala rasio dalam penelitian kuantitatif adalah dalam mengukur tinggi badan responden. Untuk mengukur tinggi badan responden, peneliti dapat menggunakan skala rasio seperti sentimeter atau meter. Dengan menggunakan skala rasio, peneliti dapat melakukan perhitungan yang akurat terkait dengan tinggi badan responden, seperti menghitung rata-rata tinggi badan, menghitung deviasi standar, atau melakukan analisis statistik lainnya.
2. Skala rasio menampilkan urutan nilai dari yang terendah hingga tertinggi, dengan interval yang konsisten antara nilai-nilai tersebut. Misalnya, pengukuran waktu atau jarak adalah contoh yang sempurna, memungkinkan operasi matematika dasar seperti penambahan, pengurangan, perkalian, dan pembagian nilai.

DAFTAR PUSTAKA

- Allen, M J. (2001). *Introduction to Measurement Theory*. Long Grove, Illinois: Waveland Pr Inc
- Anjana, A., & Choudhuri, R. (2018). Identification of Criteria for Assessing the Quality of Research. *American Journal of Educational Research*, 6(6), 592-595. <https://doi.org/10.12691/education-6-6-2>
- Iba, Z., & Wardhana, A. (2023). *Metode Penelitian*. Purbalingga: Eureka Media Aksara
- Memon, M A., Ting, H., Cheah, J., Ramayah, T., Chuah, F., & Cham, T. (2020). Sample Size for Survey Research: Review and Recommendations. *Journal of Applied Structural Equation Modeling*, 4(2), 1-20. [https://doi.org/10.47263/jasem.4\(2\)01](https://doi.org/10.47263/jasem.4(2)01)
- Taherdoost, H. (2019). What Is the Best Response Scale for Survey and Questionnaire Design; Review of Different Lengths of Rating Scale / Attitude Scale / Likert Scale. *International Journal of Academic Research in Management*, 8(1), 1-10. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3588604
- Wardhana, Aditya, et al. (2022). *Metodologi Penelitian Kuantitatif, Kualitatif, dan Kombinasi*. Bandung: Media Sains Indonesia.

BAB 7

INSTRUMEN PENELITIAN DALAM PENELITIAN KUANTITATIF

A. Pengertian Instrumen Penelitian Kuantitatif

Instrumen penelitian kuantitatif adalah sarana yang vital dalam menghimpun data secara ilmiah yang bisa diperhitungkan secara statistik. Penelitian ini memanfaatkan pendekatan saintifik dan teknik statistik untuk mengukur sejumlah variabel di dalam sebuah kelompok populasi, memastikan hasilnya bersifat obyektif dan dapat dipercaya. Contoh instrumen penelitian kuantitatif meliputi kuesioner, tes, dan pengamatan terstruktur. Informasi yang terkumpul dari instrumen ini kemudian diproses dan dianalisis menggunakan teknik statistik yang canggih, memungkinkan para peneliti menghasilkan data yang tepat dan bersifat ilmiah. (Kreutzer, 2023; Wardhana et al, 2022; Colton, dan Covert, 2021; Lee, dan Jeon, 2021; Leedy, dan Ormrod, 2021; Saha, dan Onwuegbuzie, 2021; Brown, 2020; Gao, et al, 2020; Grinnell Jr., Richard dan Unrau, 2020; McClure, 2020; Zareiyan, dan Danesh, 2018; Allen, Healy, dan Asher, 2014).

Instrumen penelitian kualitatif merupakan sarana efektif yang dipakai untuk menghimpun data dalam penelitian yang bersifat kualitatif. Jenis penelitian ini bertujuan untuk meraih pemahaman mendalam mengenai fenomena sosial dalam konteks alamiahnya dengan cara menginterpretasi dan mendeskripsikan data yang terkumpul. Untuk memperoleh data yang bernilai, peneliti sering menggunakan instrumen seperti panduan wawancara, panduan observasi, dan catatan lapangan. Panduan wawancara membantu peneliti dalam berinteraksi

DAFTAR PUSTAKA

- Allen, Laura K., Healy, Karyn L., dan Asher, Jana J. (2014). Development and Validation of the Sport Concussion Assessment Tool 3 (SCAT3) in Rugby Union. *British Journal of Sports Medicine*, 48(10), 758-763
- Bazargan-Hejazi, Shahrzad., Mojtabai, Ramin., & Gelberg, Lillian. (2020). Validation of a Survey Instrument for Psychiatric Outpatient Satisfaction. *Journal of Psychiatric Practice*, 26(5), 379-386
- Billups, Felice D. (2020). *Qualitative Data Collection Tools: Design, Development, and Applications (Qualitative Research Methods)*. Los Angeles: SAGE Publication
- Braverman, Marc T. (2022). *Evaluating Program Effectiveness: Validity and Decision-Making in Outcome Evaluation (Evaluation in Practice Series)*. Los Angeles: SAGE Publication
- Bridgmon, Krista D., & Martin, William E. (2012). *Quantitative and Statistical Research Methods: From Hypothesis to Results*. Hoboken, New Jersey: Jossey-Bass
- Brown, James Dean. (2020). *Understanding Research in Second Language Learning: A Teacher's Guide to Statistics and Research Design*. New York, NY: Cambridge University Press
- Çalışkan, İpek., Dağlı, Gökmen., Sarı, Ve Seher. (2021). The Development of a Qualitative Research Instrument: The Case of Pre-Service Physical Education Teachers' Professional Development. *Journal of Education and Practice*, 12(1), 1-10
- Cheng, Tsu-Jui., & Chen, Chein-Hsiang. (2020). Developing a Measurement Instrument for Online Learning Engagement: A Validity and Reliability. *Journal of Educational Technology & Society*, 23(2), 134-146
- Chen, Xiaojun., Yu, Zhenghong., & Zhang, Shuqin. (2016). Development and Validation of a Scale to Measure Healthcare Empowerment Among Patients with Chronic

Conditions. *Patient Education and Counseling*, 99(12), 2024-2031

- Colton, David., & Covert, Robert W. (2021). *Designing and Constructing Instruments for Social Research and Evaluation*. Hoboken, NJ: John Wiley & Sons, Inc.
- Edwards, A. L., & Kenney, K. C. (1946). A Comparison of The Thurstone and Likert Techniques of Attitude Scale Construction. *Journal of Applied Psychology*, 30(1), 72-83
- Funk, Kylee L., Kearney, Christopher A., & Greer, Brian D. (2015). Development and Validation of the School Anxiety Inventory-Short Form: A Four-Factor Model of Anxiety and Worry Among Students in Elementary and Secondary School. *Journal of Psychoeducational Assessment*, 33(6), 563-576
- Gao, Yuan., et al. (2020). A Comparison of Qualitative and Quantitative Measurement Instruments for Urban Public Space Quality. *Sustainability*, 12(10), 1-16
- Grace-Martin, Karen A., & Meyer, Jeff. (2012). How to Use Likert Scales and Other Ordinal Data in Regression Analysis. *The Journal of Statistics Education*, 20(2), 1-24
- Grinnell Jr., Richard M., & Unrau, Yvonne A. (2020). *Social Work Research and Evaluation: Quantitative and Qualitative Approaches*. New York, NY: Oxford University Press
- Hamid, Tengku Aizan., Yaacob, Siti Nor., & Yasin, Mohd Azhar Mohd. (2016). The Development and Validation of the Malay Spiritual Well-Being Scale. *Journal of Religion and Health*, 55(6), 2082-2097
- Haldar, Marit K., Berman, Anne H., & Lundqvist, Lars-Olov. (2014). Development and Psychometric Evaluation of the Drinking Refusal Self-Efficacy Questionnaire for Adolescents. *Alcohol and Alcoholism*, 49(3), 345-351
- Harkiolakis, Nicholas. (2017). *Quantitative Research Methods: From Theory to Publication*. Washington: CreateSpace Independent Publishing Platform

- Harlow, Lisa D., Jaffe, Anna E., & Kogan, Steven M. (2017). Development and Psychometric Characteristics of a Measure of Daily Parenting Stress for Parents of Young Children. *Child Psychiatry and Human Development*, 48(2), 245-261
- Hedrih, Vladimir. (2019). *Adapting Psychological Tests and Measurement Instruments for Cross-Cultural Research: An Introduction*. London: Routledge
- Iba, Z., & Wardhana, A. (2023). *Metode Penelitian*. Purbalingga: Eureka Media Aksara
- Kim, Yoojung., & Kim, Hyunju. (2016). The Effect of Response Scale Format on Response Distribution and Survey Results in Web Surveys. *Social Science Computer Review*, 34(3), 334-349
- Kreutzer, Ralf T. (2023). *Practice-Oriented Marketing: Basics – Instruments – Case Studies*. Heidelberg, Germany: Springer
- Lee, Chul-Joo., & Jeon, Hye-Sun. (2021). Development and Validation of a Quantitative Instrument to Measure Attitudes Toward Wearable Healthcare Devices. *Journal of Medical Systems*, 45(2), 1-10
- Leedy, Paul D., & Ormrod, Jeanne Ellis. (2021). *Practical Research: Planning and Design*. Boston, MA: Pearson Education Limited
- Liew, Jeffrey M., Wang, Qinjun., & Vaughn, Sherry S. (2017). Development and Validation of a Math Interest Inventory for Chinese Middle School Students. *Journal of Psychoeducational Assessment*, 35(2), 161-176
- Li, Li., Yang, Liqiong., & Yang, Xiaoping. (2019). Developing and Validating a Scale to Measure Preschool Teachers' Intention to Use Educational Technology. *International Journal of Emerging Technologies in Learning*, 14(4), 89-103
- MacBride, Tamsin B., Wallace, Ian M. J., & Munro, Kevin G. (2018). Development and Validation of a Questionnaire to Measure Hearing Difficulties in Adults. *Ear and Hearing*, 39(3), 573-581

- McClure, Kelly S. (2020). *Selecting and Describing Your Research Instruments (Concise Guides to Conducting Behavioral, Health, and Social Science Research)*. Washington, DC: American Psychological Association
- Ngaage, Denise D., Yang, Yifan., & Taylor, Marion P. (2019). A Systematic Review of Self-Efficacy Measures and Their Psychometric Properties for the Promotion of Physical Activity in Older Adults. *Maturitas*, 126(1), 27-44
- Nizam, A.K. Mohd., Ahmad, H.H., & Redzuan, M. (2015). Development and Validation of a Science Process Skills Test for Secondary School Students. *Asia-Pacific Forum on Science Learning and Teaching*, 16(1), 1-21
- Revelle, William., & Lovejoy, Travis. (2011). Governing Equations for Simple Motoric Tasks. *Behavior Research Methods*, 43(3), 882-896
- Rzewuska, Magdalena., Owen, Alice., & Anokye, Nana. (2017). Development and Psychometric Properties of the Diabetes Illness Representation Questionnaire: Malaysian Version. *Health and Quality of Life Outcomes*, 15(1), 1-8
- Saha, Lawrence J., & Onwuegbuzie, Anthony J. (2021). *Handbook of Research Methods in Education and the Social Sciences*. Hoboken, NJ: John Wiley & Sons, Inc.
- Sergeeva, Elena Yu., Nikitina, Larisa M., & Maksimov, Evgeniy V. (2014). Development and Psychometric Evaluation of the Russian Version of the Buss-Perry Aggression Questionnaire. *Psychological Assessment*, 26(2), 597-602
- Storch, Eric A., Mayes, Taryn L., & Lewin, Adam B. (2015). The Environmental Anxiety Scale: Development and Psychometric Properties. *Journal of Clinical Psychology*, 71(2), 121-130

- Tiwari, Chetan., Koley, Munmun., & Lata, Kusum. (2018). Development and Validation of a Scale to Measure Consumer Perception of Organic Foods in India. *Journal of Cleaner Production*, 202(1), 572-582
- Wang, Ke., et al. (2021). Development and Validation of a Quantitative Measurement Instrument for Organizational Climate of Health Care Workers in China. *Journal of Healthcare Engineering*, 1(1), 1-11
- Wardhana, Aditya, et al. (2022). *Metodologi Penelitian Kuantitatif, Kualitatif, dan Kombinasi*. Bandung: Media Sains Indonesia.
- Williams, Malcolm., Wiggins, Richard D., et al. (2022). *Beginning Quantitative Research*. Newbury Park, California: SAGE Publication
- Wrench, Jason S., Thomas-Maddox, Candice., et al. (2018). *Quantitative Research Methods for Communication: A Hands-On Approach*. Oxford: Oxford University Press
- Zareiyan, Armin., & Danesh, Farshid. (2018). Development and Validation of a Scale to Measure the Factors Affecting Smart Phone Adoption in Mobile Banking Services. *Journal of Retailing and Consumer Services*, 41(1), 51-61
- Zhang, Hua., et al. (2019). Development and Validation of a Health Literacy Measurement Instrument for Chinese Cancer Patients. *BMC Public Health*, 19(1), 1-10
- Zimmerman, Marc A., Tortolero, Susan R., & Markham, Christine M. (2016). Development and Validation of Brief Scales to Measure Emotional Connectedness to School and Classmates Among Early Adolescents. *Journal of School Health*, 86(2), 110-119

TENTANG PENULIS



Dr. Zainuddin Iba SE., MM.

Lahir di Blang Dalam Baroh 1961. Menyelesaikan pendidikan pada Fakultas Ekonomi (jurusan Manajemen) Universitas Pakuan (UNPAK) Bogor tahun 1990. Magister Manajemen Fakultas Ekonomi dan Bisnis Universitas Syiah Kuala Banda Aceh tahun 2009. Menyelesaikan Program Doktor Ilmu Manajemen pada Universitas Pasundan (UNPAS) Bandung tahun 2015. Pengalaman bekerja di PT. Winner Garment Manufacturing Corp, Bogor (1990-1993). PT. Grea Citra Lestari Bogor (1993-1994). PT. Indonesia Product Centre Sarinah Jaya Jakarta (1994-1996). PT. Kumagai Wika Joint Operation. Kota Bumi Lampung (1996-1998). Centurion Co Ltd. Jakarta, (1998-2000). Eastern Fashions Co Ltd, Jakarta (2001-2002). PT. Lombartex Indonesia Apparel Lhokseumawe Provinsi Aceh (2005-2007). Anggota DPRK Aceh Utara periode (2014-2019). Dosen Tetap Yayasan Kebangsaan Bireuen (2009-Sekarang). Ketua STIE Kebangsaan Bireuen (2013-2017). Ketua Program Pascasarjana Magister Manajemen Fakultas Ekonomi dan Bisnis Universitas Islam Kebangsaan Indonesia (2017-2021). Wakil Rektor Bidang Akademik (2021-sekarang).



Dr (Cand). Aditya Wardhana, S.E., M.Si., M.M., CHRMP, CIRP, CHRA, CPP, CHRBP

Penulis merupakan dosen tetap di Universitas Telkom. Menyelesaikan studi Sarjana Ekonomi di Universitas Padjadjaran tahun 1997. Kemudian, penulis menyelesaikan studi Magister Sains di Universitas Padjadjaran tahun 2003 dan menyelesaikan studi Magister Manajemen di Universitas Pasundan tahun 2012. Saat ini penulis sebagai kandidat Doktor Ilmu Manajemen di Universitas Pasundan. Penulis memiliki kepakaran

di bidang manajemen sumber daya manusia (SDM). Penulis memiliki sertifikasi dalam bidang SDM yaitu *Certified Human Resources Management Professional (CHRMP)*, *Certified Industrial Relations (CIRP)*, *Certified Human Resources Analyst (CHRA)*, *Certified Personality Practitioner (CPP)*, dan *Certified Human Resources Business Partner (CHRBP)*. Penulis memiliki pengalaman praktisi SDM di bagian *Human Resource Development* PT Perusahaan Gas Negara Tbk serta sebagai konsultan di berbagai BUMN seperti PT Surveyor Indonesia, PT Badan Klasifikasi Kapal Indonesia, PT Pertamina, PT BNI 46, PTPN VIII Jawa Barat, PT Biofarma, serta pada Kementerian Koordinator Perekonomian RI, dan Kementerian Perhubungan. Penulis aktif menulis lebih dari 400 buku dalam bidang bisnis serta memiliki Sertifikasi Penulis Buku Non-Fiksi dari Badan Sertifikasi Nasional Profesi (BSNP) RI. Penulis meraih penghargaan sebagai dosen dengan kinerja penelitian terbaik se-Jawa Barat dan Banten dari LLDIKTI Wilayah IV pada tahun 2022. Email Penulis: adityawardhana@telkomuniversity.ac.id



REPUBLIK INDONESIA
KEMENTERIAN HUKUM DAN HAK ASASI MANUSIA

SURAT PENCATATAN CIPTAAN

Dalam rangka perlindungan ciptaan di bidang ilmu pengetahuan, seni dan sastra berdasarkan Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta, dengan ini menerangkan:

Nomor dan tanggal permohonan : EC00202457769, 1 Juli 2024

Pencipta
Nama : **Dr. Zainuddin Iba, S.E., M.M dan Aditya Wardhana**
Alamat : Jl. Ceindana No. 9, Kel. Lembang Garam, Kec. Banda Sakti, Kota Lhokseumawe, Aceh, Banda Sakti, Lhokseumawe, Di Aceh, 24351
Kewarganegaraan : Indonesia

Pemegang Hak Cipta
Nama : **Dr. Zainuddin Iba, S.E., M.M dan Aditya Wardhana**
Alamat : Jl. Ceindana No. 9, Kel. Lembang Garam, Kec. Banda Sakti, Kota Lhokseumawe, Aceh, Banda Sakti, Lhokseumawe, Di Aceh, 24351
Kewarganegaraan : Indonesia
Jenis Ciptaan : **Buku**
Judul Ciptaan : **Operasionalisasi Variabel, Skala Pengukuran & Instrumen Penelitian Kuantitatif**
Tanggal dan tempat diumumkan untuk pertama kali di wilayah Indonesia atau di luar wilayah Indonesia : 21 Juni 2024, di Purbalingga
Jangka waktu perlindungan : Berlaku selama hidup Pencipta dan terus berlangsung selama 70 (tujuh puluh) tahun setelah Pencipta meninggal dunia, terhitung mulai tanggal 1 Januari tahun berikutnya.
Nomor pencatatan : 000633431

adalah benar berdasarkan keterangan yang diberikan oleh Pemohon.
Surat Pencatatan Hak Cipta atau produk Hak terkait ini sesuai dengan Pasal 72 Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta.



a.n. MENTERI HUKUM DAN HAK ASASI MANUSIA
DIREKTUR JENDERAL KEKAYAAN INTELEKTUAL
u.b
Direktur Hak Cipta dan Desain Industri

IGNATIUS M.T. SILALAH
NIP. 196812301996031001

Disclaimer:
Dalam hal pemohon memberikan keterangan tidak sesuai dengan surat pernyataan, Menteri berwenang untuk mencabut surat pencatatan permohonan.