UNIVERSITY OF DELHI

Department of Home Science

Faculty of Science

1- year MSc Human Development & Childhood Studies

Research Track Only

Department of Home Science

University of Delhi

Course Credit Structure NEP 2025

The Department of Home Science offers a Master's Programme in Human Development and Childhood Studies, focusing on understanding human development across the lifespan within a culturally diverse, dynamic, and complex world. The programme adopts contextual and systemic frameworks to explore developmental and relational processes through research, teaching, and practical engagement.

With a strong commitment to interdisciplinary learning, the curriculum integrates classroom instruction with meaningful field visit experiences. It places particular emphasis on recognising and studying the heterogeneity of children and adults across diverse social, cultural, and institutional settings.

Program Specific Objectives:

- To study the domains of human development from a lifespan perspective.
- To examine the interaction between the child and the socio-cultural systems, including educational settings.
- To promote competence in scientific study, research in the field, and the use of relevant assessment measures for children.
- To develop sensitivity and skills in working with children and families.
- To acquire a working knowledge of counselling children and families.
- To plan and implement programmes for children.
- To create awareness about children and families living in difficult circumstances.
- To provide students with a situated career exposure through internships and placements.

Program Specific Outcomes:

- The students will learn strategies for effective capacity building, implementation and assessment of early childhood education and development programmes.
- Students will learn support and advocacy skills for Gender Justice, Child Rights, Inclusion, and Adoption, which will help students to gain a professional advantage.
- Students will learn to interpret and discuss current research trends related to children's evolving interactions with media.
- Students will engage with the diversity and plurality of childhood in India and gain knowledge of the status of children in India.
- Students will acquire skills to critically analyse the concerns related to specific groups and will understand the processes and principles of 'rights-based programming'.

- Students will apply resilience frameworks and theoretical perspectives to understand child behaviour in diverse contexts.
- Students will examine and analyse the significance of children's social and ecological contexts, study the approaches and practices for inclusion and empowerment of children and families.
- Students will develop a holistic understanding of the educational ecosystem, processes and practices with reference to traditional knowledge and belief systems that have shaped parenting in India.

1 Yr- M.Sc. Human Development and Childhood Studies

RESEARCH ONLY

Course Credit Scheme

Program Structure-3: M.Sc. Only Research

Semester	Core Courses		Elective Course		Research Methodology		Project work		Total Credits
	No. of courses	**Total credits**	No. of Courses	**Total credits**	No. of courses	Total credits	No. of courses	Total credits	
I	1	4	1	4	2	4	1	10	22
II	-	-	1	4	1	2	1	16	22
Total Credits for the course	4		8		6		26		44

List of PGCF Courses of M.Sc. Human Development and Childhood Studies
(Semester 1 and II of the One Year program)
RESEARCH ONLY

List of Courses to be offered to students opting for Structure-3 (Only Research) of M.Sc. in 1st and 2nd Semester of One year Course							
Semester I							
Type of Course	**Type**	**Semester**	**Name of the Courses**	**Credits in each course**			
				Lecture	**Tutorial**	**Practical**	**Total**
Discipline-Specific Core course	**DSC-1**	**I**	**Methodological Approaches to Human Development and Childhood Studies**	**2**	**0**	**2**	**4**
Discipline-Specific Elective course	**DSE**	**I**	**Statistics and Data Management/ Research and Practices in Developmental Disabilities**	**As per the specific course**			**4**
Advanced Research Methodology	**ARM-I**	**I**	**Advanced Research Methodology**	**2**	**0**	**0**	**2**
Tools for Research	**TR-I**	**I**	**Tools for Research**	**2**	**0**	**0**	**2**
Dissertation/Project/Entrepreneurship	**IP-1**	**I**	**Research project**	**0**	**0**	**10**	**10**
Semester II							
Discipline-Specific Elective course	**DSE**	**II**	**Research and Practices in Early Childhood Care and Education**	**As perthespecificcourse**			**4**
Techniques of Research Writing	**TRW**	**II**	**Techniques of Research Writing**	**2**	**0**	**0**	**2**
Dissertation/Project/ Entrepreneurship	**IP-2**	**II**	**Research project**	**0**	**0**	**16**	**16**
Pool of Discipline Specific Elective Courses to be offered in the 1st semester	**i. Statistics and Data Management** **ii. Research and Practices in Developmental Disabilities**						
Pool of Discipline Specific Elective Courses to be offered in the 2nd semester	**Research and Practices in Early Childhood Care and Education**						

Semester I

DISCIPLINE SPECIFIC CORE COURSE
METHODOLOGICAL APPROACHES TO HUMAN DEVELOPMENT AND CHILDHOOD STUDIES

CREDIT DISTRIBUTION, ELIGIBLITY AND PRE REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical		
Methodological Approaches to Human Development and Childhood Studies	**4**	**2**	**0**	**2**	**As per admission norms**	**Nil**

Learning Objectives

- The present course is designed to provide an advanced understanding of research methodologies within the framework of Human Development and Childhood Studies.
- It further aims to promote an interdisciplinary approach to the study of the lifespan.
- The course seeks to familiarize students with key anthropological and sociological research tools and their application across lifespan studies.

Learning Outcomes

Students will be able to:

- Explore advanced concepts, tools, and approaches to data collection and analysis within the broad spectrum of the social sciences.
- Enhance their critical thinking, analytical writing, and evaluative skills.
- Evaluate and adapt appropriate research designs, methodologies, and techniques within an interdisciplinary framework.

THEORY

(Credit 2; Hours 30)

UNIT I: Interdisciplinary Nature of lifespan Research **6 Hours**

This unit introduces the interdisciplinary nature of social science research and its relevance to human development. It also covers empirical research and multidisciplinary approaches to studying children.

- Philosophy of Social Science Research; intersection of sociology, psychology, and anthropology etc.
- Introduction to empirical research and Human Development Indices
- Multidisciplinary approaches to the study of children

UNIT II: Formulating a Research Design **8 Hours**

This unit focuses on the process of designing a research study, including identifying problems, framing objectives, and selecting appropriate methods. It also emphasizes methodological decision-making, limitations, and reflexivity in real-life research contexts.

- Contextualising the study and defining the research problem
- Designing scope, objectives and framing research questions
- Formulation and testing of hypotheses; sources of data and methods of data collection
- Method selection in real-life research contexts
- Methodological limitations and reflexivity

UNIT III: Fieldwork Methods and Techniques **9 Hours**

This unit focuses on qualitative and participatory research methods, including ethnography and child-centred approaches. It also addresses ethical considerations and practical challenges in conducting fieldwork.

- Meaning, scope, and comparative understanding of ethnography with other qualitative methods
- Life history, oral narratives and focussed group discussion
- Research *with* children vs *on* children; Participatory methods with children (e.g., play-based methods, child interviews)
- Participatory rural appraisal techniques
- Ethics and challenges in fieldwork

UNIT IV: Social Science Research Tools and Scope of Lifespan Studies **7 Hours**

This unit focuses on basic approaches to data analysis and key research tools used in lifespan studies. It also highlights the application of these tools in community and institutional research contexts.

- Basic data analysis approaches (thematic analysis, descriptive statistics)

- Content analysis
- Longitudinal studies
- Research tools in community and institutional contexts

PRACTICAL

(Credit 2; Hours 60)

- To explore and analyse secondary data using an existing dataset (e.g. From NSSO, World Bank dataset, NDAP etc.) and prepare a detailed analytic report.
- To select a book relevant to the course and write a critical review**,** focusing on its methodological and conceptual contributions.
- To collect and analyse 10–15 newspaper articles, magazine articles, or social media posts, examining themes related to human development and childhood studies.
- To undertake short-term fieldwork in a village, slum, urban neighbourhood, institution, or community, and maintain a field diary with detailed observation notes.
- To analyse case-based ethical dilemmas in research with children and suggest appropriate strategies to ensure informed consent, confidentiality, and sensitivity.
- To plan, organise, and conduct a focus group discussion and/or oral life histories with selected community members, followed by analysis of findings.
- To prepare and present a research proposal on an identified theme related to human development, incorporating appropriate methodology.

Essential Readings

UNIT I: Interdisciplinary Nature of lifespan Research

- Chambers, R. (2003). The best of both worlds. In R. Kanbur (Ed.), *Q-Squared: Qualitative and quantitative poverty appraisal* (pp. 34–45). Delhi: Permanent Black.
- Devi, O.H. (2016). Childhood Experiences and Discourses: An Interpretation. In Marak, Q. (Eds.), *Doing Autoethnography* (pp. 250-267). New Delhi: Serials Publications.
- Hammet, D., Twyman, C. and Graham, M. (2015): *Research and Field Work in Development, Routledge*. New York.

UNIT II: Formulating a Research Design

- Bell, J. (2014). *Doing your research project: A guide for first-time researchers (Fifth ed.)*. Maidenhead, Berkshire: Open University Press.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Los Angeles: Sage
- Jennings, M. (2006). Using Archives. In V. Desai, & R. B. Potter (Eds.), *Doing Development Research* (pp. 241-250)
- Sharma, S. (1992). Social Science Research in India: A Review. *Economic and Political Weekly*, 27 (49/50), 2642-2646.

- Srivastava, V. K. (ed.) (2004). *Methodology and Field Work*. New Delhi: OUP.

UNIT III: Fieldwork Methods and Techniques

- Hammersley, M. and Atkinson, P. (**1983)**. *Ethnography: Principles in Practice.* Tavistock Publications. London
- Kothari, U. (2001). Power, Knowledge and Social Control in Participatory Development. In Bill C. and Uma K. (Eds.), *Participation: The New Tyranny?* (pp.139–52) 1st ed. London: Zed Books.
- Srinivas, M.N. (1976): *Remembered Village*, Oxford, New Delhi

UNIT IV: Social Science Research Tools and Scope of Lifespan Studies

- Babbie, E. (2020). *The practice of social research (15th ed.)*. Cengage Learning.
- Bryman, A. (2021). *Social research methods (6th ed.)*. Oxford University Press.
- Fowler Jr., F.J. (2022). *Survey research methods (6th ed.)*. SAGE Publications.

Suggested Readings

- Beatty, P. C. (2018). *Advances in questionnaire design, development, evaluation and testing*. John Wiley & Sons.
- DeWalt, K. M. & DeWalt, B.R. (2011). *Participant Observation: A Guide for Fieldworkers*. Rowman & Littlefield Publishers, Inc. USA
- Emerson, R. M., Fretz, R. I. & Shaw, L. L. (2011). *Writing Ethnographic Fieldnotes*. University of Chicago Press. USA
- Lohr, S. L. (2019). *Sampling: Design and analysis (2nd ed.)*. Chapman and Hall/CRC.

Note: Examination scheme and mode shall be as prescribed by the Examination branch, University of Delhi, from time to time

RESEARCH METHODS
STATISTICS AND DATA MANAGEMENT

CREDIT DISTRIBUTION, ELIGIBLITY AND PRE REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical		
Statistics and Data Management	**4**	**3**	**0**	**1**	As per admission norms	

Learning Objectives

- To develop understanding of fundamental and advanced statistical concepts used in research and data analysis.
- To enable students to apply descriptive and inferential statistics for real-world decision-making.
- To strengthen ability to formulate hypotheses, select appropriate statistical tests, and interpret outputs.
- To prepare students for quantitative research, industry analytics, and academic data projects.
- To train students in using Excel and SPSS for data handling, visualization, and interpretation.

Learning Outcomes

The students would be able to:

- Explain key concepts in descriptive and inferential statistics.
- Organize, clean, and summarize datasets using appropriate statistical tools.
- Apply probability distributions, correlation, regression, and hypothesis testing.
- Use Excel and SPSS for data visualization, statistical testing, and reporting.
- Interpret statistical outputs and draw valid conclusions for research decisions.
- Design and execute quantitative data analysis workflows independently.

THEORY

(Credits 3; Hours 45)

UNIT I: Introduction and descriptive Statistics **12 Hours**

This unit will introduce the foundations of statistics and techniques for summarizing and describing data.

- Definition, scope, and applications of statistics
- Types of data: qualitative and quantitative
- Scales of measurement
- Classification & tabulation of data
- Graphical and visual representations
- Measures of central tendency: mean, median, mode
- Measures of dispersion: range, variance, standard deviation, coefficient of variation
- Skewness and kurtosis: meaning and interpretation

UNIT II: Probability and Probability Distributions 10 Hours

This unit explores probability concepts and major statistical distributions.

- Basic probability concepts: Addition & multiplication theorems
- Random variables: discrete and continuous
- Binomial and Normal distributions
- Sampling theory & sampling distributions
- Central Limit Theorem

UNIT III: Correlation and regression 8 Hours

This unit focuses on analysing relationships between variables.

- Correlation: Pearson and Spearman correlation
- Simple linear regression: model, estimation, interpretation
- Multiple linear regression: assumptions, multicollinearity, model building

UNIT IV: Hypothesis Testing and Non-Parametric Methods 15 Hours

This unit introduces hypothesis testing frameworks and non-parametric alternatives for non- normal data.

- Concept of hypothesis: null & alternative
- Types of errors, significance levels, p-value
- Parametric tests:
    - z-test
    - t-test (one sample, independent, paired)
    - Chi-square test
- Non-parametric tests:
    - Mann–Whitney U test
    - Wilcoxon signed-rank test
    - Kruskal–Wallis test
- Interpretation and reporting of statistical results

- Research Conclusion and recommendation

PRACTICAL

(Credits 1; 30 hours)

1. Data Entry, Coding & Cleaning: Importing data, handling missing values, variable labels, Excel formulas.
2. Descriptive Statistics & Visualization: Mean, Standard Deviation, frequency tables, histograms, boxplots (Excel + SPSS).
3. Cross-Tabulation & Chi-Square Test: PivotTables in Excel; Crosstabs in SPSS.
4. Correlation Analysis: Pearson & Spearman correlations; scatterplots.
5. Simple Linear Regression: Trendline in Excel; Regression output in SPSS.
6. Multiple Regression: Model summary, coefficients, interpretation using SPSS.
7. t-Tests: Independent, paired, and one-sample t-tests in SPSS.
8. ANOVA (One-way & Two-way): Running ANOVA and post-hoc analysis.
9. Non-Parametric Tests: Mann-Whitney, Wilcoxon, Kruskal–Wallis in SPSS.
10. Report Generation & Interpretation
11. Preparing APA-style tables, graphs, and interpretations in Excel/SPSS.

Essential Readings:

UNIT I

This unit describes the foundations of statistics and techniques for summarizing and describing data.

- Agresti, A., & Franklin, C. A. (2009). *Statistics: The art and science of learning from data* (2nd ed.). Pearson Prentice Hall.
- Bernard, H. R. (2000). *Social research methods: Qualitative and quantitative approaches*. Sage.
- Diez, D. M., Barr, C. D., & Cetinkaya-Rundel, M. (2015). *OpenIntro statistics* (3rd ed.). CreateSpace Independent Publishing Platform.
- Minium, E. W., King, B. M., & Bear, G. (2004). *Statistical reasoning for psychology and education*. Wiley.

UNIT II

This unit deals with the probability concepts, rules of probability, discrete and continuous distributions (Binomial, Poisson, Normal).

- Agresti, A., & Franklin, C. A. (2009). *Statistics: The art and science of learning from data* (2nd ed.).
- Diez, D. M., Barr, C. D., & Cetinkaya-Rundel, M. (2015). *OpenIntro statistics* (3rd ed.).
- Minium, E. W., King, B. M., & Bear, G. (2004). *Statistical reasoning for psychology and education*.

UNIT III

This unit focuses on relationship between variables, correlation coefficients, simple and multiple regression, regression assumptions.

- Agresti, A., & Franklin, C. A. (2009). *Statistics: The art and science of learning from data* (2nd ed.).
- Diez, D. M., Barr, C. D., & Cetinkaya-Rundel, M. (2015). *OpenIntro statistics* (3rd ed.).
- Muijs, D. (2004). *Doing quantitative research in education with SPSS*. Sage.

UNIT IV

The unit deals with statistical inference such as t-tests, ANOVA, Chi-square, non-parametric tests (Mann-Whitney, Wilcoxon, Kruskal-Wallis), decision making.

- Agresti, A., & Franklin, C. A. (2009). *Statistics: The art and science of learning from data* (2nd ed.).
- Diez, D. M., Barr, C. D., & Cetinkaya-Rundel, M. (2015). *OpenIntro statistics* (3rd ed.).
- Minium, E. W., King, B. M., & Bear, G. (2004). *Statistical reasoning for psychology and education*.
- Muijs, D. (2004). *Doing quantitative research in education with SPSS*.

Suggested Readings

- Field, A. (2025). *Discovering Statistics Using IBM SPSS Statistics* (6th ed.). Sage.
- Kalyanaraman, K., Ramanathan, H. N., & Harikumar, P. N. (2025). *Statistical Methods for Research: A Step-by-Step Approach Using IBM SPSS*. Atlantic Publishers.
- Healey, J. F., & Donoghue, C. (2021). *Statistics: A Tool for Social Research and Data Analysis* (11th ed.).

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DISCIPLINE SPECIFIC ELECTIVE

RESEARCH AND PRACTICES IN DEVELOPMENTAL DISABILITIES

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical		
Research And Practices in Developmental Disabilities	4	2	0	2	As per admission norms	Nil

Learning Objectives:

- To build a strong understanding of theoretical foundations, ethical principles and diverse research methodologies relevant to developmental disabilities.
- To develop the ability to critically analyse assessment tools, intervention models and statistical techniques used in the study of developmental disabilities.
- To enable students to design and conduct culturally relevant and evidence-based research in the field of developmental disabilities.
- To prepare students to apply research findings for policy development, professional practice and academic advancement.

Learning Outcome:

Students will be able to:

- Demonstrate advanced knowledge of theoretical frameworks, ethical guidelines and research methodologies in the field of developmental disabilities.
- Critically evaluate assessment tools, intervention models and statistical techniques used in research on developmental disabilities.
- Design and implement culturally relevant, evidence-based research studies related to developmental disabilities.
- Effectively translate research findings into policy recommendations, professional practices and academic contributions.

THEORY

(Credit 2; Hours 30)

UNIT I: Overview of Research in Developmental Disabilities 7 Hours

This unit focuses on foundation in developmental disabilities research, examining historical evolution, theoretical frameworks, and ethical considerations in working with vulnerable populations.

- History and evolution of Developmental Disabilities (DD) research
- Perspectives of developmental disabilities in research
- Theoretical frameworks guiding DD research
- Ethics and considerations in DD research
- Priorities and gaps in the field of developmental disabilities research

UNIT II: Research Methodology in Developmental Disabilities 8 Hours

This unit focuses on research methodology in developmental disabilities, emphasizing study design, sampling and evaluation of culturally relevant assessment tools.

- Techniques for assessment: Developmental screening tools
- Qualitative vs quantitative and longitudinal vs cross-sectional research designs used in DD studies
- Review of research designs in published papers
- Indian cultural and contextual considerations in DD research

UNIT III: Intervention Research in Developmental Disabilities 8 Hours

This unit focuses on evidence-based practices and interventions in developmental disabilities, focusing on evaluating models and designing frameworks for early intervention and family-centered programs.

- Research on early intervention, family-centered intervention and inclusive education
- Notions of evidence-based practices (EBP) in DD
- Behavioral, cognitive-behavioral, developmental, educational, rehabilitation-based intervention models
- Institutional services and evaluation methods in DD
- Connecting scientific findings to practice and policy

UNIT **IV: Advanced Cotemporary Methods in Developmental Disabilities Research 7 Hours**

This unit focuses on contemporary issues in developmental disabilities, emphasizing data analysis, interpretation, and policy review for informed research and practice.

- Advanced contemporary methods used in DD research: Thematic, content, narrative analysis
- Assistive technologies, digital data collection, AI tools in DD research
- Policy driven research in developmental disabilities
- Applications of research findings in therapeutic settings
- Ethical reporting and dissemination in DD research

PRACTICAL

(Credit 2; Hour 60)

- To critically analyze a peer-reviewed research study/ Departmental dissertations on disability and inclusion.
- Observation and documentation of motor skills, cognition, communication, social interaction, play behaviour and adaptive skills of a child with disability.
- To review mobile applications- Pre-Assessment Holistic Screening Tool (PRASHAST) and Ped Neuro AIIMS Diagnostics. Report on its accessibility, utility, assessment techniques and validity
- To conduct a short research study by visiting any one working in the area of disability, focusing on systematic observation of IEP, assessment reports, daily practices, services, and skill development
- To study five published articles which will guide future research focusing on key ethical concerns, risks, and safeguarding practices for the inclusion of children/persons with disability
- Prepare case study of a child/adolescent with disability through multiple field visits using IEP, observations, stakeholder interviews, diagnosis and assessment reports.

Essential Readings

UNIT **I: Overview of Research in Developmental Disabilities**

- Kumar, S. (2014). *Handbook of disability studies in India*. Atlantic Publishers.
- Nair, M. K. C., & Radhakrishnan, R. (2013). *Child development and developmental disorders*. Orient Blackswan.
- Kumar, A., & Gupta, S. (2018). *Disability, inclusion and development: Indian perspectives*. Rawat Publications.
- Odom, S. L., Horner, R. H., Snell, M. E., & Blacher, J. (2007). *Handbook of developmental disabilities*. Guilford Press.

UNIT II: Research Methodology in Developmental Disabilities

- Forshaw, M., Upton, D., & Jones, S. (2011). *Psychology Express: Research methods in psychology* (1st ed.). Pearson.
- Mertens, D. M. (2015). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (4th ed.). SAGE Publications

UNIT III: Intervention Research in Developmental Disabilities

- Pandey, R., & Singh, M. (2020). *Educational research: Tools and techniques*. APH Publishing Corporation.
- Singh, A. (2016). *Research methods in psychology*. Pearson India.
- Odom, S. L., Boyd, B. A., Hall, L. J., & Hume, K. (2010). Evaluation of comprehensive treatment models for individuals with autism spectrum disorders. *Journal of autism and developmental disorders*, *40*(4), 425–436. https://doi.org/10.1007/s10803-009-0825-1

UNIT IV: Advanced Cotemporary Methods in Developmental Disabilities Research

- SAP SE. (2024). *The inclusive research handbook*. SAP. https://www.sap.com/design/stories-resources/inclusive-research-handbook
- Mayers, A. (2013). *Introduction to statistics and SPSS in psychology*. Pearson.
- Silverman, D. (2021). *Qualitative research* (5th ed.). SAGE Publications.

Suggested Readings

- Kar, B. R. (2015). *Cognitive development: A cultural and contextual approach*. Sage Publications.
- Mukhopadhyay, R. (2019). *Understanding disability: Theoretical and empirical perspectives*. Rawat Publications.
- Narayan, J., & John, A. (2017). *Intellectual disability in India: Challenges and practices*. NIMH Publications.
- Sharma, U., & Deppeler, J. (Eds.). (2018). *Inclusive education: Perspectives and practices in India*. Sage Publications India.
- Dash, M. (2016). *Education of children with special needs*. Atlantic Publishers.

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ADVANCED RESEARCH METHODOLOGY

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre- requisite of the Course (if any)
		Lecture	Tutorial	Practical		
Advanced Research Methodology	2	2	0	0	As per admission criteria	Should have studied Basic Research Methodology and Statistics

Learning Objectives

- Construct a theoretical framework for diverse research problems.
- Compare and contrast the design elements of experimental, quasi-experimental, and non-experimental studies.
- Formulate appropriate research questions for a mixed-methods design.

Learning Outcomes

After completing the course, students will be able to:

- Design complex research projects, including mixed-methods and longitudinal studies, appropriate for advanced academic inquiry.
- Determine the internal and external validity of research designs.
- Evaluate and justify the selection of advanced sampling techniques.

THEORY
(Credits 2; Hours 30)

UNIT I: Theoretical Foundation of Research Design and Sampling. 12 Hours

This unit covers the theoretical foundation of research designs, issues of internal and external validity, advanced literature review techniques including systematic reviews and meta- analysis, and approaches to theory building through inductive, deductive, and abductive reasoning. The unit also discusses sophisticated sampling techniques, sample size determination, and sources of sampling error, enabling learners to design rigorous and generalizable research studies.

- Types of research designs and internal external validity perspectives
- Literature Review Approaches: Systematic Review, Meta Analysis, scoping review and others
- Theory Building and testing in qualitative and quantitative researches
- Sampling Frameworks and strategy, Sample size calculation and error
- Advanced Quantitative Sampling Techniques: Stratified Cluster Sampling, Multi-Stage Sampling, Adaptive Sampling and other techniques.
- Sampling in qualitative research: Techniques and issues of depth, context and data saturation

UNIT II: Quantitative, Qualitative and Mixed Methods Research Design. 18 Hours

This unit focuses on the different types of research designs including, advanced quantitative research designs, key qualitative research methodologies and mixed-methods research designs and strategies for integrating qualitative and quantitative data.

- Quantitative Research Design
  - Advanced Experimental Designs: RCT Designs, Factorial designs, Repeated Measures (within-subjects),
  - Longitudinal Studies: Panel, Cohort, and Trend designs
  - Cross-Sectional: Survey and other quantitative designs.
- Qualitative Methodologies
  - Aspects of robust Qualitative research designs.
  - Iteration, Data Triangulation,Saturation and Reflexivity in qualitative research
  - Ethnographic Research, Case Study Research, Narrative Inquiry
  - Action and Participatory Researches: philosophical and methological perspectives

- Mixed-Methods Design
  - Convergent Parallel, Explanatory Sequential, Exploratory Sequential designs; Notation systems (e.g., QUAL to QUAN)
  - Integration and Mixing: Strategies for data mixing, synthesis, and developing a unified interpretation.

Essential Readings

UNIT I

This unit introduces the perspectives that guide advanced research practices. Students will study different types of research designs, key issues of validity, advanced literature review methods, and approaches to theory development. The unit also covers details of sampling for research. The unit aims to strengthen students' conceptual clarity and ability to link theory, methodology, and research questions in scholarly inquiry.

- Black, J. A., & Champion, D. J. (1976). *Methods and issues in social research*. John Wiley & Sons
- Burns, Robert, B. (2000) *Introduction to Research Methods*(4th ed.,chaps8-10, 20-22, 29,30). Sage Publications
- Kothari, C.R., Garg, Gaurav (2023) *Research Methodology: Methods and Techniques*
- (5th ed.) New Age International Publishers
- Mandlik, D., Kalkar, P., Singh C. (2025) *Advanced Research Methodologies and Practices*. Taylor & Francis.
- Mallik, R., Kurian, M., Prajapati, V., Pithadia, M. (2023) *Advanced Research Methodology*. AG Publishing House
- Neuman, W. Laurence (2008) Social Research Methods: Qualitative and Quantitative Approaches (6th ed., chaps3-5) Pearson Education

UNIT II

This unit focuses on advanced quantitative research designs including experimental, longitudinal, and cross-sectional designs. Emphasis is placed on understanding complex experimental structures and multivariate approaches. Through this unit, students will also develop an understanding of advanced qualitative research approaches such as ethnographic, case study, narrative, and participatory research designs, focusing on their key features and applications. The unit will further discuss mixed-methods research designs that integrate quantitative and qualitative approaches. Students will examine different mixed-methods designs and strategies for integrating data during analysis and interpretation.

- Baumeister, M., Kropf, S., & Pöpper, C. (2022). Quantile-based MANOVA: A new tool for inferring multivariate data in factorial designs. *arXiv preprint arXiv:2211.15484*. https://doi.org/10.48550/arXiv.2211.15484
- Black, J. A., & Champion, D. J. (1976). *Methods and issues in social research*. John Wiley & Sons
- Burns, Robert, B. (2000) *Introduction to Research Methods*(4th ed.,chaps8-10, 20-22, 29,30). Sage Publications
- Caruana, E. J., Roman, M., Hernández-Sánchez, J., & Solli, P. (2015). Longitudinal studies. *Journal of Thoracic Disease*, *7*(11), E537–E540. https://doi.org/10.3978/j.issn.2072-1439.2015.10.63
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications, Inc.
- Denzin, N. K., Lincoln, Y. S., Giardina, M. D., & Cannella, G. S. (Eds.). (2024). *The SAGE handbook of qualitative research* (6th ed.). SAGE Publications
- Kerlinger, F. N. (1973). *Foundations of Behavioral research* (2nd ed., chaps 7,8, 17- 26). Holt, Rinehart, and Winston.
- Kothari, C.R., Garg, Gaurav (2023) *Research Methodology: Methods and Techniques* (5th ed.) New Age International Publishers
- Luthfiandana, R., Santioso, L. L., Febrian, W. D., Soehaditama, J. P., & Sani, I. (2024). Qualitative research concepts: Phenomenology, grounded theory, ethnography, case study, narrative. *Scientia Journal of Applied Management*, *2*(1), 26–36. https://doi.org/10.38035/sjam
- Minc, S. D., Chandanabhumma, P. P., Sedney, C. L., Haggerty, T. S., Davidov, D. M., & Pollini, R. A. (2022). Mixed methods research: A primer for the vascular surgeon. *Seminars in Vascular Surgery*, *35*(4), 447–455. https://doi.org/10.1053/j.semvascsurg.2022.09.003
- Neuman, W. Laurence (2008) Social Research Methods: Qualitative and Quantitative Approaches (6th ed., chap 13) Pearson Education
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, *42*(5), 533–544. https://doi.org/10.1007/s10488-013-0528- y

Suggested Readings

- Dagher, D., & Khan, M. (2025). Writing a systematic review and meta-analysis: A step-by-step guide. *Sports Health*, *17*(5), 885–890. https://doi.org/10.1177/19417381251364686
- M. E. R. (2020). Methodological integrity in critical qualitative research. *The Counseling Psychologist*, *48*(6), 848–874. https://doi.org/10.1177/0011000020950348
- Findley, M. G., & Faten, A. (2024). Vulnerability in research ethics: A call for assessing vulnerability and implementing protections. *Proceedings of the National Academy of Sciences*, *121*(11), https://doi.org/10.1073/pnas.2322821121

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TOOLS FOR RESEARCH

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical		
Tools for Research	2	2	0	0	As per admission criteria	Nil

Learning Objectives

- Design and evaluate quantitative and qualitative tools.
- Understand data processing and effectively utilize common statistical packages.
- Apply coding techniques, and utilize digital platforms and AI in research design and analysis.

Learning Outcomes

After completing the course, students will be able to:

- Differentiate between major quantitative and qualitative tools.
- Demonstrate proficiency in data entry, coding and cleaning.
- Utilize digital platforms and AI effectively in the formulation, administration, and data collection.
- Proficiently utilize specialized software for qualitative data analysis and quantitative statistical testing.

THEORY
(Credits 2; Hours 30)

UNIT I: Quantitative Tools, Data Coding and Analysis **15 Hours**

This unit introduces quantitative research tools, including questionnaires and rating scales, and the principles of their development, reliability, and validity. It covers major rating scales and key steps in scale construction, analysis, and standardization, along with the use of digital platforms and AI for tool development and administration. This unit also focuses on quantitative data coding, entry, and cleaning using statistical software. It introduces variable definition, handling of missing data, basic automation through spreadsheet and open-source tools, and familiarization with commonly used statistical software for data management and analysis.

- Quantitative measurement, Variables and construct definition
- Quantitative tool development: Questionnaire, Semi-Structured Interview Schedules.
- Rating Scales Types and Development Process: Item Generation and Content Validation, Item Analysis, Internal Consistency and Factor Analysis, Scale Refinement and Standardization.
- Coding styles and Approaches.
- Assessment of Reliability and Validity of quantitative Tools.
- Data Coding, Entry and Cleaning (Statistical Software): Handling missing data (listwise/pairwise deletion).
- Automation and Data Scripting: Advance excel, other open-source software for data import/export.
- Statistical Software Usage: Navigating common statistical packages

- Leveraging Digital Tools and AI for enhancing the Research lifecycle: Tool Formulation, Data collection and Analysis

UNIT II: Qualitative Tools, Data Coding and Analysis 15 Hours

This unit introduces major qualitative research tools and their application in research. It covers the development and validation of qualitative tools, descriptive and thematic coding techniques, and the use of digital platforms and AI for qualitative data collection and analysis. This unit further focuses on qualitative data coding and analysis using qualitative data analysis software. It introduces the interface and use of QDAS for importing, coding, cleaning, and managing text, audio, and video data, along with an overview of NVivo, ATLAS.ti, and other open-source tools.

- Qualitative tools: In-Depth Interview, Focus Group Discussion, Case Study, Observation, Diaries, Oral Narratives/Stories and others.
- Participatory tools : Types, characteristics and usage in qualitative and participatory researches.
- Developing Qualitative Tools: Tool selection and development, pilot testing and refinement.
- Validity of Qualitative Tools: Qualitative vs. Quantitative Validity, Methods for establishing validity for qualitative tools.
- Coding Techniques: Descriptive and thematic coding
- Digital Platforms and AI for development of qualitative tools and data analysis.
- Qualitative Data Analysis Software (QDAS) Interface: Importing, coding and cleaning different data types (text, audio, video)
- Overview of NVivo, ATLAS.ti and other open-source QDAS software

Essential Readings

UNIT I

This unit aims to build an understanding of quantitative tools used for the purpose of data collection. The unit introduces various types of quantitative data tools, their development and assessment of their reliability and validity. This unit further introduces various rating scales and their development, validation and standardisation. The unit also includes the learning of coding and analysis of quantitative data, basics of data processing scripts and common statistical packages

- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- Cheema, J. R. (2014). Using listwise deletion to cope with missing data: A cautionary note. *Journal of Educational and Developmental Psychology, 4*(1), 127–134.
- Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis. *International Journal of Endocrinology and Metabolism, 10*(2), 486–489.
- Gotschall, T., & Gotschall, T. (2018). EndNote, Mendeley, RefWorks, Zotero: A comparative review. *Journal of Electronic Resources in Medical Libraries, 15*(1), 1–18.
- Hausner, E. T., & Hirt, S. J. (2020). Improving reproducibility in academic data-intensive research through computational workflows. *Frontiers in Research Metrics and Analytics, 5*(7).
- Johnson, R., & Witsel, M. (2018). ORCID: A necessary piece of infrastructure for global research evaluation. *Frontiers in Research Metrics and Analytics, 3*(28).

UNIT II

This unit introduces various types of qualitative tools used in research, their development, pilot testing and refinement. The unit also introduces techniques of establishing validity and of such qualitative tools of data collection. This section also discusses prominent digital and AI tools for qualitative research and provides an overview of qualitative data coding and analysis software.

- Allsop, D. B., Chelladurai, J. M., Kimball, E. R., Marks, L. D., & Hendricks, J. J. (2022). Qualitative methods with NVivo software: A practical guide for analyzing qualitative data. Psych, 4(2), 142–159.
- Al-Kassimi, M., & Al-Sharqi, A. (2020). Data visualization techniques: Model and taxonomy. International Journal of Research in Engineering and Science, 8(3), 44–53.
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- Gotschall, T., & Gotschall, T. (2018). EndNote, Mendeley, RefWorks, Zotero: A comparative review. *Journal of Electronic Resources in Medical Libraries, 15*(1), 1–18.
- Johnson, R., & Witsel, M. (2018). ORCID: A necessary piece of infrastructure for global research evaluation. *Frontiers in Research Metrics and Analytics, 3*(28).
- Provalis Research. (n.d.). QDA Miner: Qualitative Data Analysis Software. Retrieved from https://provalisresearch.com/products/qualitative-data-analysis-software/
- Urban Institute. (2025). Urban Institute Data Visualization Style Guide. Retrieved from http://urbaninstitute.github.io/graphics-styleguide/
- Weninger, M. (2024). Open coding in qualitative research: A systematic review and guide. *ResearchGate* (preprint).

Suggested Readings:

- Kang, H. (2013). The prevention and handling of the missing data. *Korean Journal of Anesthesiology, 64*(5), 402–406.
- Kery, M., & Myers, M. (2020). Improving reproducibility in academic data-intensive research through computational workflows. *Frontiers in Research Metrics and Analytics, 5*(7).
- Saravanakumar, A. P., & Shitharth, S. (2023). A survey on sentiment analysis: Techniques, algorithms, and application areas. *Journal of King Saud University – Computer and Information Sciences, 35*(3).
- Takes, F. W. (2024). Gephi tutorial for graph/network visualization. Retrieved from https://github.com/franktakes/gephi-tutorial

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Semester II

DISCIPLINE SPECIFIC ELECTIVE
RESEARCH AND PRACTICES IN EARLY CHILDHOOD CARE AND EDUCATION

CREDIT DISTRIBUTION, ELIGIBLITY AND PRE REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical		
Research and Practicesin Early Childhood Care and Education	4	2	0	2	As per admission norms	Nil

Learning Objectives

- To build a strong understanding of theoretical foundations, ethical principles and diverse research methodologies in Early Childhood Care and Education (ECCE)
- To develop the ability to critically analyse assessment tools, intervention models and statistical techniques used in early childhood research.
- To enable students to design and conduct culturally relevant, evidence-based studies in ECCE settings.
- To prepare students to apply research findings for policy formulation, professional practice and academic growth.

Learning Outcomes

The students will be able to:

- Demonstrate advanced knowledge of theoretical frameworks, ethical standards and research methodologies in Early Childhood Care and Education.
- Critically evaluate assessment tools, intervention models and statistical techniques used in early childhood research.
- Design and implement culturally relevant, evidence-based research studies in ECCE.
- Translate research findings into policy recommendations, professional practices and academic contributions.

THEORY

(Credit 2; Hours 30)

UNIT I: Foundations of Research in Early Childhood Care and Education 6 Hours
This unit focus on to provide foundation in Early Childhood Care and Education (ECCE) research, covering theoretical, historical, and ethical principles while identifying gaps for future scholarly inquiry.

- Concept and scope of Early Childhood Care and Education (ECCE) in research
- Historical perspectives and evolution of ECCE research

- Key theoretical frameworks guiding ECCE research
- Ethical principles and considerations in ECCE research (informed consent, assent, vulnerability)
- Research gaps and priorities in the field of ECCE

UNIT II: Research Methods and Processes in Early Childhood Care and Education 8 Hours

This unit offers a brief introduction to research methods in ECCE and how information about young children is collected and understood. It emphasizes simple tools and ethical practices to improve early childhood programmes and teaching.

- Types of research designs used in ECCE studies (Qualitative VS quantitative, Longitudinal vs cross-sectional designs)
- Sampling in ECCE research (small samples, clinical samples, community-based samples)
- Tools and techniques for assessment: Developmental screening tools
- Reliability and validity issues specific to ECCE population
- Cultural and contextual considerations in Indian ECCE research

UNIT III: Evidence-Based Practices & Intervention Research 8 Hours

This unit focuses on evidence-based practices and intervention research in ECCE, enabling critical evaluation and application of developmentally appropriate methods in real-world settings.

- Concepts of evidence-based practice (EBP) in ECCE
- Evaluation of intervention models: Behavioral, cognitive-behavioural, developmental, educational-based
- Research on early intervention and family-centred intervention
- Program evaluation methods in ECCE services
- Translational research: connecting scientific findings to practice and policy

UNIT IV: Contemporary Issues, Data Analysis & Dissemination 8 Hours

This unit focuses on addressing contemporary issues in ECCE research, focusing on data analysis, ethical dissemination, evidence-based evaluation, and professional development for effective practice.

- Advanced methods used in ECCE research: Thematic, content, narrative analysis
- Use of technology in ECCE research: Assistive technologies, digital data collection, AI tools
- Policy-oriented research in ECCE
- Dissemination of research findings
- Ethical reporting and avoiding bias in ECCE research

PRACTICAL

(Credit 2; Hours 60)

- Review and critique departmental dissertations/ research studies in ECCE
- Early Childhood Education Quality Assessment Scale (ECEQAS), Early Childhood Environment Rating Scale (ECERS-3), Infant/Toddler Environment Rating Scale (ITERS-3). Usage and reflections on strengths, limitations, adaptability and contextual variability of these tools
- Field visit to ECCE centres catering to different ecological settings and conduct systematic observations focusing on infrastructure, learning spaces, play material, pedagogy, teacher-child and peer interactions
- Conduct an ethnographic study of a child's development in different domains to study influence of demographics, caregiving practices and daily routines on development
- Prepare one ECCE assessment module and review different approaches used in ECCE monitoring and evaluation
- Review and critically analyse ECCE framework and policies using secondary data. Reflect on goals, alignment with child development theories, implementation challenges and implications for ECCE practitioners

Essential Readings

UNIT I: Foundations of Research in Early Childhood Care and Education

- Punch, K. & Oancea, A. (2020). *Introduction to Research Methods in Education*. Sage Publications.
- Aggarwal, J. & Sabharwal, V. (2025). *Essentials of research methodology: A practical manual.* Elite Publishing House.
- Kothari, C. R., & Garg, G. (2023). *Research methodology: Methods and techniques*. New Age International Pvt Ltd.

UNIT II: Research Methods and Processes in Early Childhood Care and Education

- Mukherjee, D. & Banerjee, S. (2021). *Research Methods in Early Childhood Education*. Sage Publications India.
- Bernard, H. R. (2000). *Social research methods: Qualitative and quantitative approaches.* Sage.
- Creswell, J. & Creswell, D. (2018). *Research design: Qualitative, quantitative and mixed methods approaches.* Sage Publications.

Unit III: Evidence-Based Practices & Intervention Research

- Silverman, D. (2020). *Qualitative research* (5th ed.). SAGE Publications.
- UGC. (2021). *Academic integrity and research quality*. https://sushantuniversity.edu.in/admin-assets/uploaddata/UGC-Booklet-on-Academic-Integrity-and-Research-Quality.pdf

UNIT IV: Contemporary Issues, Data Analysis & Dissemination

- Fleer, M. (2021). *Play in the early years: Research and practice.* Cambridge University Press.
- Gonzalez-Mena, J. (2015). *Foundations of early childhood education: Teaching children in a diverse society*. McGraw-Hill Education.
- Jain, S., & Raghunathan, R. (2019). *Inclusive approaches to early childhood education in India: Policy frameworks and implementation*. Sage Publications.

Suggested Readings

- CBPS. (2018, March). Research studies on ECCE - recommendations and policy directions for ECCE in India: lessons drawn from the three research reports on ECCE. Bengaluru: Centre for Budget and Policy Studies.
- Gopalan, M., & Sinha, R. (2014). *Childhood education in India: Policy, practice, and global trends*. Oxford University Press.
- Rao, N. & Sun, J. (2020). *Early Childhood Education in Asia: Research*. Policy and Practice. Routledge.
- Kumar, R. (2019). *Research methodology: A step-by-step guide for beginners (5th ed.).* Sage Publications.

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TECHNIQUES OF RESEARCH WRITING

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course
		Lecture	Tutorial	Practical		
Techniques of Research Writing	2	2	0	0	As per admission policy	Should have studied Advanced Research Methodology and Tools for Research

Learning Objectives

- Comprehend and apply principles of academic writing for research
- Understand the concept of plagiarism and adopt strategies to avoid plagiarism.
- Learn and use different citation styles and effectively utilize reference management tools.
- Outline the process of writing, publishing, and presenting research.
- Avoid common errors in academic writing.

Learning Outcomes

After completing the course, students will be able to:

- Structure and organize major scholarly works according to disciplinary standards.
- Master the principles of academic writing and non-plagiaristic expression.
- Employ visualization techniques to effectively communicate complex research findings and data patterns.
- Apply citation styles and formatting requirements meticulously to produce publication-ready manuscripts.

THEORY
(Credits 2; Hours 30)

UNIT I: The Foundations and Structure of a Research Manuscript 18 Hours

This unit covers the essentials of clear, concise, and formal academic writing, ethical practices including plagiarism avoidance, effective idea organization, and responsible use of AI tools in research. This unit also guides students through crafting a complete research manuscript, including introduction, methodology, results, discussion, and conclusions, with emphasis on accurate data presentation, visualization, and proper manuscript formatting.

- Academic Writing principles and organization of ideas
- Plagiarism types, use of plagiarism-checking software & interpretation of

plagiarism reports.

- Academic writing frameworks: IMRAD (Introduction, Methods, Results, Discussions) Structure and the TEEC (Topic sentence, Evidence, Explanation, Conclusion) Structure
- Ethical use of AI in academic writing
- Data Visualization: Principles, Types and Tools

UNIT II: Citation, Reference Management, Publication and Presentation of Research 12 Hours

The unit focuses on mastering citation styles, managing references using software tools, and conducting efficient literature searches using databases and advanced search strategies. The unit further explores journal selection, ethical publishing practices, research paper writing, and the creation and delivery of effective presentations and posters for diverse academic audiences.

- Citation Management & formatting guidelines: Detailed application of specific styles (e.g., APA 7th, MLA, Chicago, Vancouver), managing in-text citations, citation index.
- Reference Management Software (RMS): Zotero, Mendeley and other citation tools; searching specialized databases (e.g., Scopus, Web of Science, ScienceDirect);
- Databases and Search Strategy- Key search terms, Boolean operators, PRISMA diagram
- Types and Selection of Journals: Predatory journals, Cloned journals; Open access and Paid Journals; Impact Factor and other metrics of Journals
- Research Paper writing and publishing in peer-reviewed journals, understanding journal-specific guidelines.
- Formulating and Presenting a Research Poster
- Presentation Skills: Creating effective slides, summarizing complex findings for different audiences, and managing Q&A sessions.

Essential Readings:

UNIT 1

This unit introduces the essential principles of scholarly writing required for academic research. It focuses on developing clarity, precision, and coherence in written work while maintaining an appropriate academic tone. This unit also familiarizes students with accurate citation practices and systematic reference management in academic writing. Further, the unit covers the correct presentation of tables, figures, and overall manuscript formatting in line with journal and institutional requirements. Students will gain practical skills necessary for producing professionally structured research documents.

- American Psychological Association. (2020). *Plagiarism* (7th ed.). APA Style. https://apastyle.apa.org/style-grammar-guidelines/citations/plagiarism
- American Psychological Association. (2020). *Sample tables* (7th ed.). APA Style. https://apastyle.apa.org/style-grammar-guidelines/tables- figures/sample-tables
- American Psychological Association. (2023). *Citing generative AI in APA Style: Part 1—Reference formats*. APA Style Blog. https://apastyle.apa.org/blog/cite-generative-ai-references
- Thomas, C. George (2021) Research Methodology and Scientific Writing (2nd ed.) Springer Nature

UNIT II

This unit focuses on the organization and presentation of a complete research report/document. Students will learn how to write each section of a research manuscript clearly and logically. The unit focusses on the processes involved in publishing and presenting research work. It covers the selection of appropriate journals, awareness of unethical publishing practices, the basics of writing for peer-reviewed publications, effective research presentation skills, including poster preparation and oral presentations

- American Psychological Association. (2020). *Response to reviewers* (7th ed.). APA Style. https://apastyle.apa.org/style-grammar-guidelines/research- publication/response-reviewers
- American Psychological Association. (2020). *Heading levels* (7th ed.). APA Style. https://apastyle.apa.org/style-grammar-guidelines/paper- format/heading-levels
- Hamilton College. (n.d.). *How to write an APA research paper*. https://www.hamilton.edu/academics/centers/writing/writing-resources/how-to-write- an-apa-research-paper
- Montclair State University. (2021). *How to prepare your dissertation in APA Style*. https://www.montclair.edu/graduate/wp-content/uploads/sites/58/2021/01/DISSERTATION-GUIDELINES-FOR-APA- STYLE-1-2021.pdf
- Tullu, M. S., & Karande, S. (2017). *Writing a model research paper: A roadmap*. *Journal of Postgraduate Medicine*, *63*(3), 143–146. https://doi.org/10.4103/jpgm.JPGM_325_17

Suggested Readings:

- AME Publishing Company. (2022). *Discussion and conclusion*. https://cdn.amegroups.cn/journals/vats/files/journals/27/articles/4955/public/4955- PB1-8866-R1.pdf?filename=amj-04-26.pdf
- McLeod, S. (2023). *How to write a methods section for a psychology paper*. Very well Mind. https://www.verywellmind.com/how-to-write-a-method- section-2795726

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