



**Universitas Negeri Surabaya
Faculty of Education,
Doctoral Study Program in Educational Technology**

Document
Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Quantitative Research Methodology	8600303034	Compulsory Study Program Subjects	T=3	P=0	ECTS=7.56	2	August 15, 2023
AUTHORIZATION	SP Developer		Course Cluster Coordinator			Study Program Coordinator	
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Learning model Project Based Learning

Program Learning Outcomes (PLO) PLO study program which is charged to the course

Program Objectives (PO)

PO - 1	Understand the basic concepts and implementation of qualitative and quantitative research in accordance with educational research steps and procedures, including: formulation, hypothesis and research variables.
PO - 2	Understand the basic concepts and implementation of qualitative and quantitative research in accordance with educational research steps and procedures, including: research variables and research design.
PO - 3	Understand the basic concepts and implementation of qualitative and quantitative research in accordance with educational research steps and procedures, including: research design and sampling techniques.
PO - 4	Understand the basic concepts and implementation of qualitative and quantitative research in accordance with educational research steps and procedures, including: data analysis, interpretation of research results, drawing conclusions, and preparing proposals in accordance with scientific principles and ethics.

PLO-PO Matrix

	P.O
	PO-1
	PO-2
	PO-3
	PO-4

PO Matrix at the end of each learning stage (Sub-PO)

	P.O	Week															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	PO-1																
	PO-2																
	PO-3																
	PO-4																

Short Course Description This course examines the basic concepts and implementation of qualitative and quantitative research in accordance with educational research steps and procedures, including: formulation, hypothesis, research variables, research design, sampling techniques, data collection methods, instrument development, data analysis, interpretation of research results , drawing conclusions, and preparing proposals in accordance with scientific principles and ethics.

References **Main :**

1. McMillan, James H., Schumacher, Sally. 2010. Research in Education . Seventh Edition
2. Hadi, Sutrisno . 2015. Metodologi Riset. Yogyakarta: Pustaka Pelajar
3. Cozby, Paul C., Bates, Scott C. 2012. Methods in behavioral research . New York: McGraw-Hill Companies, Inc
4. Rusijono dan Mustaji . 2013. Penelitian teknologi pembelajaran . Surabaya: Unesa University Press
5. Creswell, J. W. (2020). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research, Global Edition. Britania Raya: Pearson Education.
6. Setyaedhi, Hari Sugiharto. 2023. Pengembangan Instrumen Tes Hasil Belajar (Bentuk Tes Objektif). Sleman. CV Budi Utama
7. Setyaedhi, Mustaji, dan Fitri. 2023. Empirical Quality of Final Exam Questions in a Learning Management System-Based Course Authors. Jurnal Pendidikan Indonesia, VOL.12, No.1. <https://doi.org/10.23887/jpiundiksha.v12i1.52262>
8. setyaedhi, hari, Rusijono, R., & Khotimah, K. (2023). Workshop for Preparation of Minimum Competence Assessment for Private High School Teachers. International Journal of Community Service Learning, 7(3), 282–292. <https://doi.org/10.23887/ijcsl.v7i3.67456>

Supporters:

1. Roni, S. M., Merga, M. K., & Morris, J. E. (2020). Conducting quantitative research in education. Berlin/Heidelberg, Germany: Springer.
2. Hermawan, I. (2019). Metodologi penelitian pendidikan (kualitatif, kuantitatif dan mixed method). Hidayatul Quran.
3. Pakaya, W. C., Sutadji, E., Dina, L. N. A. B., Rahma, F. I., Mashfufah, A., & Ayu, I. R. (2023). Metode Penelitian Pendidikan. Nawa Litera Publishing.
4. setyaedhi, hari, Rusijono, R., & Khotimah, K. (2024). Training and Mentoring in the Development of Test Instruments for Measuring Learning Outcomes of Muhammadiyah School. International Journal of Community Service Learning, 7(3), 272–281. <https://doi.org/10.23887/ijcsl.v7i3.63063>

Supporting lecturer
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 Dr. Atan Pramana, M.Pd.

Week-	Final abilities of each learning stage (Sub-PO)	Evaluation		Help Learning, Learning methods, Student Assignments, [Estimated time]		Learning materials [References]	Assessment Weight (%)
		Indicator	Criteria & Form	Offline (offline)	Online (online)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Understanding of basic concepts and types of research.	1.Can explain the meaning of research 2.Can explain types of research based on field 3.Can explain the type of research based on the research location 4.Can explain types of research based on research approaches	Criteria: 75% of students can explain correctly Form of Assessment : Participatory Activities	Lectures, discussions, questions and answers, assignments 3 X 50		Material: Understanding basic concepts and types of research. References: <i>McMillan, James H., Schumacher, Sally. 2010. Research in Education. Seventh Edition</i> Material: Understanding basic concepts and types of research. Reference: <i>Hermawan, I. (2019). Educational research methodology (qualitative, quantitative and mixed method). Hidayatul Quran.</i>	3%

2	Formulate research problems	<p>1.Able to find research problems in the field of Educational Technology</p> <p>2.Able to formulate research problems in the field of Educational Technology</p>	<p>Criteria: 75% of students are able to formulate research problems in the field of Educational Technology</p> <p>Form of Assessment : Participatory Activities</p>	Lectures, discussions, questions and answers, assignments 3 X 50		<p>Material: Formulating research problems References: <i>McMillan, James H., Schumacher, Sally. 2010. Research in Education. Seventh Edition</i></p> <hr/> <p>Material: Formulating research problems References: <i>Hermawan, I. (2019). Educational research methodology (qualitative, quantitative and mixed method). Hidayatul Quran.</i></p>	3%
3	Research problems and variables	<p>1.Students understand the concept of research variables</p> <p>2.Students understand the concept of research variable status</p> <p>3.Students are able to explain the research variables of a research problem</p>	<p>Criteria: Individual Assignment: Formulate objectives and state the variables in each research problem. 75% of students were able to answer correctly</p> <p>Form of Assessment : Participatory Activities, Project Results Assessment / Product Assessment</p>	Lectures, discussions, questions and answers, assignments 3 X 50		<p>Material: Research problems and variables References: <i>McMillan, James H., Schumacher, Sally. 2010. Research in Education. Seventh Edition</i></p> <hr/> <p>Material: Research problems and variables References: <i>Hermawan, I. (2019). Educational research methodology (qualitative, quantitative and mixed method). Hidayatul Quran.</i></p>	3%
4	Formulate the objectives and benefits of research	Formulation of objectives and benefits of research according to the chosen problem (Individual assignment)	<p>Criteria: Individual Assignment: Formulate the research problem, research objectives, and research benefits! Assessment criteria: 75% of students are able to answer correctly</p> <p>Form of Assessment : Participatory Activities</p>	Lectures, discussions, questions and answers, assignments 3 X 50		<p>Material: Formulate the objectives and benefits of research. Reference: <i>Hadi, Sutrisno. 2015. Research Methodology. Yogyakarta: Student Library</i></p> <hr/> <p>Material: Formulating the objectives and benefits of research Reference: <i>Hermawan, I. (2019). Educational research methodology (qualitative, quantitative and mixed method). Hidayatul Quran.</i></p>	5%

5	Literature review	Able to explain the purpose of conducting a literature review	<p>Criteria: 75% of students were able to explain the purpose of the literature review</p> <p>Form of Assessment : Participatory Activities</p>	Collaborative learning, discussion, question and answer, 3 X 50 assignments		<p>Material: Literature review References : <i>Hadi, Sutrisno . 2015. Research Methodology. Yogyakarta: Student Library</i></p> <hr/> <p>Material: Literature review References : <i>Roni, SM, Merga, MK, & Morris, JE (2020). Conducting quantitative research in education. Berlin/Heidelberg, Germany: Springer.</i></p>	5%
6	Able to formulate hypotheses	<ol style="list-style-type: none"> 1.Able to explain the meaning of hypothesis 2.Able to explain types of hypotheses 3.Able to formulate a hypothesis 4.Able to explain the theory underlying the hypothesis (Individual Assignment) 	<p>Criteria: 75% of students were able to do the assignment correctly</p> <p>Form of Assessment : Participatory Activities</p>	Collaborative learning, discussion, question and answer, 3 X 50 assignments		<p>Material: Able to formulate a hypothesis Reader: <i>Hadi, Sutrisno. 2015. Research Methodology. Yogyakarta: Student Library</i></p> <hr/> <p>Material: Able to formulate a hypothesis References: <i>Roni, SM, Merga, MK, & Morris, JE (2020). Conducting quantitative research in education. Berlin/Heidelberg, Germany: Springer.</i></p>	5%
7	Understand different types of research	<ol style="list-style-type: none"> 1.Able to explain types of research based on field 2.Able to explain types of research based on location 3.Able to explain types of research based on their use 4.Able to explain types of research based on the approach 	<p>Criteria: 75% of students were able to explain the question correctly</p> <p>Form of Assessment : Participatory Activities</p>	Collaborative learning, discussion, question and answer, 3 X 50 assignments		<p>Material: Understanding various types of research References: <i>Cozby, Paul C., Bates, Scott C. 2012. Methods in behavioral research. New York: McGraw-Hill Companies, Inc</i></p> <hr/> <p>Material: Understanding various types of research References: <i>Roni, SM, Merga, MK, & Morris, JE (2020). Conducting quantitative research in education. Berlin/Heidelberg, Germany: Springer.</i></p>	5%

8	Mastering lecture material for meetings 1 - 7	Able to do UTS questions correctly	<p>Criteria: 75% of students can do UTS questions well</p> <p>Form of Assessment : Participatory Activities, Project Results Assessment / Product Assessment</p>	Written test 3 X 50		<p>Material: Mastering lecture material for meetings 1 - 7</p> <p>References: <i>Cozby, Paul C., Bates, Scott C. 2012. Methods in behavioral research. New York: McGraw-Hill Companies, Inc</i></p> <hr/> <p>Material: Mastering lecture material for meetings 1 - 7</p> <p>References: <i>Roni, SM, Merga, MK, & Morris, JE (2020). Conducting quantitative research in education. Berlin/Heidelberg, Germany: Springer.</i></p>	5%
9	Understanding the research population and sample	<ol style="list-style-type: none"> 1. Able to explain the meaning of population 2. Able to explain the meaning of sample 3. Able to explain the main characteristics of the sample 4. Able to explain types of sampling techniques 	<p>Criteria: 75% of students were able to explain the question correctly</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	Project Based Learning, discussions, questions and answers, and 3 X 50 assignments		<p>Material: Understanding research populations and samples</p> <p>References: <i>Cozby, Paul C., Bates, Scott C. 2012. Methods in behavioral research. New York: McGraw-Hill Companies, Inc</i></p> <hr/> <p>Material: Understanding the population and research sample</p> <p>References: <i>Creswell, J. W. (2020). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research, Global Edition. United Kingdom: Pearson Education.</i></p>	10%

10	Understand various experimental designs	Able to choose an experimental design that suits the research problem and conditions in the field	<p>Criteria: 75% of students are able to explain various experimental designs and are able to choose experimental designs that suit the research problem and conditions in the field</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	Project Based Learning, Lectures, questions and answers, discussions, and 3 X 50 assignments		<p>Material: Understanding various experimental designs References: <i>Creswell, John W. 2016. Research Design, Approaches, Qualitative, Quantitative and Mixed methods. Yogyakarta: Student Library</i></p> <hr/> <p>Material: Understanding various experimental designs References: <i>Creswell, J. W. (2020). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research, Global Edition. United Kingdom: Pearson Education.</i></p>	6%
11	Understand various data collection methods. Able to choose data collection methods that are appropriate to the research variables	<ol style="list-style-type: none"> 1.Able to explain various data collection methods 2.Able to choose data collection methods that suit the research variables 	<p>Criteria: 75% of students were able to answer the instrument items correctly</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	Project Based Learning, discussion, question and answer, 3 X 50 assignments		<p>Material: Understand various data collection methods. Be able to choose data collection methods that suit the research variables. References: <i>Creswell, J. W. (2020). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research, Global Edition. United Kingdom: Pearson Education.</i></p>	5%
12	Able to develop research instruments	<ol style="list-style-type: none"> 1.Students are able to develop operational definitions of variables 2.Students are able to develop variable indicators 3.Students are able to create an instrument development grid 4.Students are able to arrange instrument items 	<p>Criteria: 75% of students were able to answer questions correctly and were able to do their assignments well</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	Project Based Learning, discussions, questions and answers, and 3 X 50 assignments		<p>Material: Able to develop research instruments Reader: <i>Rusijono and Mustaji. 2013. Learning technology research. Surabaya: Unesa University Press</i></p> <hr/> <p>Material: Able to develop research instruments References: <i>Creswell, J. W. (2020). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research, Global Edition. United Kingdom: Pearson Education.</i></p>	10%

13	Able to analyze data correctly	<p>1.Students master various data analysis techniques</p> <p>2.Students are able to choose data analysis techniques appropriately</p>	<p>Criteria: 75% of students can answer the assessment items correctly</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	Project Based Learning, discussions, questions and answers, and 3 X 50 assignments		<p>Material: Able to analyze data correctly Reader: <i>Rusijono and Mustaji. 2013. Learning technology research. Surabaya: Unesa University Press</i></p> <p>Material: Able to analyze data correctly References: <i>Pakaya, WC, Sutadji, E., Dina, LNAB, Rahma, FI, Mashfufah, A., & Ayu, IR (2023). Educational Research Methods. Nawa Litera Publishing.</i></p>	10%
14	Able to prepare research proposals	Able to prepare proposals in the field of educational technology	<p>Criteria: 75% of students were able to prepare a proposal</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	Individual assignments, discussions, Project Based Learning, and 3 X 50 questions and answers		<p>Material: Able to prepare a research proposal Reader: <i>Rusijono and Mustaji. 2013. Learning technology research. Surabaya: Unesa University Press</i></p> <p>Material: Able to prepare a research proposal References: <i>Pakaya, WC, Sutadji, E., Dina, LNAB, Rahma, FI, Mashfufah, A., & Ayu, IR (2023). Educational Research Methods. Nawa Litera Publishing.</i></p>	10%
15	Able to prepare research proposals	Able to prepare research proposals in the field of Educational Technology	<p>Criteria: 75% of students were able to prepare a proposal</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	Individual assignments, discussions, Project Based Learning, and 3 X 50 questions and answers		<p>Material: Able to prepare a research proposal Reader: <i>Rusijono and Mustaji. 2013. Learning technology research. Surabaya: Unesa University Press</i></p> <p>Material: UAS References: <i>Pakaya, WC, Sutadji, E., Dina, LNAB, Rahma, FI, Mashfufah, A., & Ayu, IR (2023). Educational Research Methods. Nawa Litera Publishing.</i></p>	10%

16	UAS	UAS	Criteria: 75% of students can do the UAS well Form of Assessment : Project Results Assessment / Product Assessment	Project Based Learning 3 X 50		Material: UAS Library: Rusijono and Mustaji . 2013. <i>Learning technology research</i> . Surabaya: Unesa University Press Material: UAS References: Pakaya, WC, Sutadji, E., Dina, LNAB, Rahma, FI, Mashfufah, A., & Ayu, IR (2023). <i>Educational Research Methods</i> . Nawa Litera Publishing.	5%
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Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	30%
2.	Project Results Assessment / Product Assessment	70%
		100%

Notes

- Learning Outcomes of Study Program Graduates (PLO - Study Program)** are the abilities possessed by each Study Program graduate which are the internalization of attitudes, mastery of knowledge and skills according to the level of their study program obtained through the learning process.
- The PLO imposed on courses** are several learning outcomes of study program graduates (CPL-Study Program) which are used for the formation/development of a course consisting of aspects of attitude, general skills, special skills and knowledge.
- Program Objectives (PO)** are abilities that are specifically described from the PLO assigned to a course, and are specific to the study material or learning materials for that course.
- Subject Sub-PO (Sub-PO)** is a capability that is specifically described from the PO that can be measured or observed and is the final ability that is planned at each learning stage, and is specific to the learning material of the course.
- Indicators for assessing** ability in the process and student learning outcomes are specific and measurable statements that identify the ability or performance of student learning outcomes accompanied by evidence.
- Assessment Criteria** are benchmarks used as a measure or measure of learning achievement in assessments based on predetermined indicators. Assessment criteria are guidelines for assessors so that assessments are consistent and unbiased. Criteria can be quantitative or qualitative.
- Forms of assessment:** test and non-test.
- Forms of learning:** Lecture, Response, Tutorial, Seminar or equivalent, Practicum, Studio Practice, Workshop Practice, Field Practice, Research, Community Service and/or other equivalent forms of learning.
- Learning Methods:** Small Group Discussion, Role-Play & Simulation, Discovery Learning, Self-Directed Learning, Cooperative Learning, Collaborative Learning, Contextual Learning, Project Based Learning, and other equivalent methods.
- Learning materials** are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
- The assessment weight** is the percentage of assessment of each sub-PO achievement whose size is proportional to the level of difficulty of achieving that sub-PO, and the total is 100%.
- TM=Face to face, PT=Structured assignments, BM=Independent study.