

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

Document Code

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Courses			CODE				Cou	urse Fa	amily		Credi	it Wei	ght		SEMES	TER		Comp Date	pilati	on
Research ar Methodolog	nd Development		86003	02035						1	Γ=2	P=0	ECTS=5.	04		2	T	July 1	L7, 20)24
AUTHORIZA	TION		SP De	velope	er					Cours		uster or			Study F	rogra	m C	oordi	inato	r
			Dr. Fa	jar Aria	ınto, M	1.Pd									Pro	f. Dr. N	Must	aji, M.	.Pd.	
Learning model	Project Based	Learn	ing						-					•						
Program Learning	PLO study pr	ogran	n which	ı is ch	arged	d to the	e cou	rse												
Outcomes (PLO)	Program Obj	ective	s (PO)																	
(PLO)	PLO-PO Matr	ix																		
			P.O]															
	PO Matrix at	the en	d of ea	ch lea	rning	stage	(Sub	PO)												
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Short Course Description	Examining reso subjects or trai education/learr psychology, so project based le	ning (fa ning/tra ciology	acts, cor ining. S , politics	ncepts, Studies s, cultur	princi can l e and	ples, pr be dire	rocedu ected	ıres), ta at the	axono char	my o	f objeristics	ectives of s	s and obs students	tacle or tr	s faced aining p	in the particip	impl ants	lemen s in t	ntatio: :erms	n of
References	Main :																			
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	Supporters:																			
Supporting lecturer	Prof. Dr. Yatim Dr. H. Andi Ma Dr. Fajar Arian Dr. Alim Sumai	riono, N to, S.Po	И.Pd. d., M.Pd																	
	nal abilities of ch learning			Eva	luatio	n			S	Lea Stude	rning ent A	earni g meth ssign ated t	nods, ments,			rning erials		Asse Wei	essm ght (

	stage (Sub-PO)	Indicator	Criteria & Form	Offline (offline)	Online (<i>online</i>)	[References]	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Understand research in the area of educational technology	1.Understand the emerging field of educational technology 2.Identify types of development, utilization and evaluation research	Criteria: accuracy and depth of study Form of Assessment : Test	inquiry		Material: Research and development Bibliography: Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon	2%
						Material: development of instructional design References: Walter Dick, Lou Carey, James O. Carey. 2015. The systematic design of instruction. Pearso: New York	
2	Understand research in the area of educational technology	1.Understand the emerging field of educational technology 2.Identify types of development, utilization and evaluation research	Form of Assessment : Test	inquiry		Material: Research and development Bibliography: Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon	2%
						Material: development of instructional design References: Walter Dick, Lou Carey, James O. Carey. 2015. The systematic design of instruction. Pearso: New York	
3	Determine the basic ideas of research in the field of Educational Technology	1.Identify research themes according to the field of Educational Technology 2.Identify types of research in Educational Technology	Criteria: Suitability to the field of Educational Technology Form of Assessment: Test	Inquiry		Material: Research and development Bibliography: Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon	2%

	1	Determine the basic ideas of research in the field of Educational Technology	1.Identify research themes according to the field of Educational Technology 2.Identify types of research in Educational Technology	Criteria: Suitability to the field of Educational Technology Form of Assessment: Test	Inquiry	Material: Research and development Bibliography: Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon Material: research in the field of educational technology Readers: Joost Lowyck (auth.), J. Michael Spector, M. David Merrill, Jan Elen, MJ Bishop. 2017. Handbook of Research on Educational Communications and Technology. Springer-Verlag: New York	2%
Ę	5	Determine development research in the field of Educational Technology	1.Determine the type of research instrument 2.Develop research instruments according to the type of data needed in the research 3.Analyzing instrument validation results	Criteria: 1.Accuracy of determining research instruments 2.accuracy of research instrument variables and indicators 3.accuracy of validation of research instruments Form of Assessment: Project Results Assessment / Product Assessment	project based learning	Material: instruments and validation of research instruments References: Jack Fraenkel, Norman Wallen, Helen Hyun. 2011. How to Design and Evaluate Research in Education. McGraw-Hill: New York Material: instruments and validation of research instruments References: Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon Material: instruments and validation of research instruments References: Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon Material: instruments and validation of research instruments References: Walter Dick, Lou Carey, James O. Carey, 2015. The systematic design of instruction. Pearso: New York	5%

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6	Determine development research in the field of Educational Technology	1.Determine the type of research instrument 2.Develop research instruments according to the type of data needed in the research 3.Analyzing instrument validation results	Criteria: 1.Accuracy of determining research instruments 2.accuracy of research instrument variables and indicators 3.accuracy of validation of research instruments Form of Assessment: Project Results Assessment / Product Assessment	project based learning	Material: instruments and validation of research instruments References: Jack Fraenkel, Norman Wallen, Helen Hyun. 2011. How to Design and Evaluate Research in Education. McGraw-Hill: New York Material: instruments and validation of research instruments References: Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon Material: instruments and validation of research instruments References: Walter Dick, Lou Carey, James O. Carey. 2015. The systematic design of instruction. Pearso: New York	7%

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9	Formulate a development research design in accordance with the development model	1.Determining the right development model 2.Identify the advantages and disadvantages of various development models 3.Develop a development research design according to a predetermined model	Criteria: 1.Accuracy of determining the development model 2.sequence of assessment of each stage of development Form of Assessment: Project Results Assessment / Product Assessment	Project based learning	Material: Research and development Bibliography: Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon Material: development design Bibliography: Walter Dick, Lou Carey, James O. Carey. 2015. The systematic design of instruction. Pearso: New York Material: learning design model Reader: Gabriela Gutierrez. 2013. Newby, Stepich, Lehman and Russell (PIE Model) and ADDIE	10%
					Material: development design model References: Thiagarajan, Sivasailam. 1974. Instructional Development for Training Teachers of Exceptional Children: A Sourcebook.NY: ERIC Material: learning design model Reference: Morrison. Gary R., Ross, Steven M., Kemp, Jerrold E.	
					2001. Designing Effective Instruction. Third Edition	

10	Formulate a	1 Determining	Criteria:	Project	Material:	10%
10	Formulate a development research design in accordance with the development model	1.Determining the right development model 2.Identify the advantages and disadvantages of various development models 3.Develop a development research design according to a predetermined model	Criteria: 1.Accuracy of determining the development model 2.sequence of assessment of each stage of development	Project based learning	Material: Research and development Bibliography: Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon Material: development design Bibliography: Walter Dick, Lou Carey, James O. Carey, James O. Carey. 2015. The systematic design of instruction. Pearso: New York Material: learning design model Reader: Gabriela Gutierrez. 2013. Newby, Stepich, Lehman and Russell (PIE Model) and ADDIE Material: development design model References: Thiagarajan, Sivasailam. 1974. Instructional Development for Training Teachers of Exceptional Children: A Sourcebook.NY: ERIC Material: learning design model Reference: Morrison. Gary R., Ross, Steven M., Kemp, Jerrold E. 2001. Designing Effective Instruction. Third Edition	10%

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11	Formulate a development research design in accordance with the development model	1.Determining the right development model 2.Identify the advantages and disadvantages of various development models 3.Develop a development research design according to a predetermined model	Criteria: 1.Accuracy of determining the development model 2.sequence of assessment of each stage of development Form of Assessment: Project Results Assessment / Product Assessment	Project based learning		Material: Research and development Bibliography: Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon Material: development design Bibliography: Walter Dick, Lou Carey, James O. Carey. 2015. The systematic design of instruction. Pearso: New York Material: learning design model Reader: Gabriela Gutierrez. 2013. Newby, Stepich, Lehman and Russell (PIE Model) and ADDIE Material: development design model References: Thiagarajan, Sivasailam. 1974. Instructional Development for Training Teachers of Exceptional Children: A Sourcebook.NY: ERIC Material: learning design model Reference: Morrison. Gary R., Ross, Steven M., Kemp, Jerrold E. 2001. Designing Effective Instruction. Third Edition	10%

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12	Formulate a development research design in accordance with the development model	1.Determining the right development model 2.Identify the advantages and disadvantages of various development models 3.Develop a development research design according to a predetermined model	Criteria: 1.Accuracy of determining the development model 2.sequence of assessment of each stage of development Form of Assessment: Project Results Assessment / Product Assessment	Project based learning	Material: Research and development Bibliography: Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon Material: development design Bibliography: Walter Dick, Lou Carey, James O. Carey. 2015. The systematic design of instruction. Pearso: New York Material: learning design model Reader: Gabriela Gutierrez. 2013. Newby, Stepich, Lehman and Russell (PIE Model) and ADDIE Material: development design model References: Thiagarajan, Sivasailam. 1974. Instructional Development for Training Teachers of Exceptional Children: A Sourcebook.NY: ERIC Material: learning design model Reference: Morrison. Gary R., Ross, Steven M., Kemp, Jerrold E. 2001. Designing Effective Instruction. Third Edition	10%

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13	produce research	1.preparing the	Criteria:	Project	Material:	10%
	and development proposals that	background	1.Accuracy in	based	research	
	are appropriate	for	preparing	learning	methods and	
	to the	development	research and		reliability validity References:	
	educational technology area	research	development		Jack Fraenkel,	
	technology area	based on	background		Norman Wallen,	
		needs	2.The accuracy of		Helen Hyun.	
		analysis	the problem		2011. How to	
		2.Determine the	formulation in accordance with		Design and	
		problem formulation	development		Evaluate	
		that is	research		Research in	
		appropriate to	3.Accuracy and		Education. McGraw-Hill :	
		development	depth of		New York	
		research	theoretical			
		3.Compile	studies in		Material:	
		theoretical	accordance with		Research and	
		studies that	development		development	
		are	research		Bibliography:	
		appropriate to	variables		Meredith D.	
		development	4.Accuracy of		Gall, Walter R.	
		research	development		Borg, Joyce P.	
		variables	research		Gall. 2003. Educational	
		4.Develop	methods in		Research: An	
		research and	accordance with		Introduction.	
		development	the problem		Allyn & Bacon	
		methods that	formulation			
		are	5.Accuracy of		Material:	
		appropriate to	research and		development	
		the problem formulation	development instruments in		design	
		5.Develop	accordance with		Reader:	
		research and	research and		Gabriela	
		development	development		Gutierrez. 2013. Newby, Stepich,	
		instruments	variables		Lehman and	
		that are	6.Accuracy of		Russell (PIE	
		appropriate to	research and		Model) and	
		research and	development		ADDIE	
		development	data analysis			
		variables	techniques		Material:	
		6.determine			development	
		research and	Form of Assessment		design	
		development	: Droiget Describe		References:	
		data analysis	Project Results Assessment / Product		Thiagarajan, Sivasailam.	
		techniques	Assessment / Product Assessment		Sivasaiiam. 1974.	
			, .555551116111		Instructional	
					Development for	
					Training	
					Teachers of	
					Exceptional	
					Children: A	
					Sourcebook.NY: ERIC	
					LINIO	
					Material:	
					development	
					design	
					Reference:	
					Robert Maribe	
					Branch (2009).	
					Instructional	
					Design: The	
					ADDIE Approach	
					Approach. Springer New	
					York Dordrecht	
					Heidelberg	
					London	
					Material:	
					development	
					design	
					Bibliography:	
					Walter Dick, Lou	
					Carey, James O. Carey. 2015.	
					The systematic	
					design of	
					instruction.	
					Pearso: New	
					York	
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14	produce research	1.preparing the	Criteria:	Project		Material:	10%
	and development	background	1.Accuracy in	based		research	
	proposals that are appropriate	for	preparing	learning		methods and	
	to the	development	research and			reliability validity	
	educational	research	development			References:	
	technology area	based on	background			Jack Fraenkel,	
		needs	2.The accuracy of			Norman Wallen,	
		analysis	the problem			Helen Hyun. 2011. How to	
		2.Determine the	formulation in			Design and	
		problem	accordance with			Evaluate	
		formulation	development			Research in	
		that is	research .			Education.	
		appropriate to	Accuracy and			McGraw-Hill :	
		development	depth of			New York	
		research	theoretical				
		Compile	studies in			Material:	
		theoretical	accordance with			Research and	
		studies that	development			development	
		are	research			Bibliography:	
		appropriate to	variables			Meredith D.	
		development	4.Accuracy of			Gall, Walter R.	
		research	development			Borg, Joyce P.	
		variables	research			Gall. 2003.	
		4.Develop	methods in			Educational Research: An	
		research and	accordance with			Introduction.	
		development	the problem			Allyn & Bacon	
		methods that	formulation			y.r. & Dacon	
		are	5.Accuracy of			Material:	
		appropriate to	research and			development	
		the problem	development			design	
		formulation	instruments in			Reader:	
		5.Develop	accordance with			Gabriela	
		research and	research and			Gutierrez. 2013.	
		development	development			Newby, Stepich,	
		instruments	variables			Lehman and	
		that are	6.Accuracy of			Russell (PIE	
		appropriate to	research and			Model) and	
		research and	development			ADDIE	
		development	data analysis				
		variables	techniques			Material:	
		6.determine	Fa 6 A			development	
		research and	Form of Assessment			design	
		development	Project Results			References:	
		data analysis	Assessment / Product			Thiagarajan, Sivasailam.	
		techniques	Assessment			3174Sallalli. 1974.	
			Assessment			Instructional	
						Development for	
						Training	
						Teachers of	
						Exceptional	
						Children: A	
						Sourcebook.NY:	
						ERIC	
						Material:	
						development	
						design	
						Reference:	
						Robert Maribe	
						Branch (2009). Instructional	
						Design: The	
						ADDIE	
						Approach.	
						Springer New	
						York Dordrecht	
						Heidelberg	
						London	
						Material:	
						development	
						design	
						Bibliography:	
						Walter Dick, Lou	
						Carey, James O.	
						Carey. 2015.	
						The systematic	
						design of	
						instruction.	
						Pearso: New	
						York	
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15	produce research and development proposals that are appropriate to the educational technology area	1.preparing the background for development research based on	Criteria: 1.Accuracy in preparing research and development background	Project based learning	Material: research methods and reliability validity References: Jack Fraenkel,	20%
	to the educational technology area	development	research and		References:	
16	Final exams					0%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Project Results Assessment / Product Assessment	92%
2.	Test	8%
		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.
- 3. **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.
- 4. 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.
- 5. **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.
- 6. **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.
- 7. Forms of assessment: test and non-test.
- 8. **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.
- 10. Learning materials are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
- 11. 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%.
- 12. TM=Face to face, PT=Structured assignments, BM=Independent study.