

# Developing Teacher Training Textbooks for Lesson Study in Indonesia

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By

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**Part 1:**  
Education Reform and Teachers'  
Professional Development In  
Indonesia



**Part 1:**  
Developing Textbook As Part of  
Teachers' Professional  
Development Through Lesson  
Study Activities



# DEVELOPING TEACHING LEARNING PROCESSES

- Planning
- Classroom management
- Students' construct their knowledge
- Using resources
- Developing ICT knowledge and skills



# SOME ASPECTS OF TEXTBOOK DEVELOPMENT

1. Policy for textbooks publication
2. Developing the textbook for teachers
3. Developing the textbook for students
4. Distributing and providing the textbooks



# GOVERNMENT POLICY FOR NATIONAL TEXTBOOK

1. There is no monopoly for providing national textbook
2. The schools select for themselves for using the textbook for no longer than 5 years
3. The students are free to select their textbooks and to buy them at bookstores
4. The teachers are forbidden to sell the textbooks
5. The schools have obliged to provide the textbook for their lower economic students
6. The Ministry of Education have the right to copy the books, to publish and sell them with the lower prizes.
7. The Ministry of Education encourages the District to have their own book-stores.

# Teachers' Competencies of Developing Textbooks



# NATIONAL STANDARD OF COMPETENCIES FOR JUNIOR HIGH SCHOOL MATHEMATICS IN INDONESIA COVERS:

## Numbers

- To understand and held arithmetical operation using numbers to solve problems

## Measurement and Geometry

- To understand and use the properties of line, angle, two and three dimensions geometrical shape to solve problems
- To understand and identify the properties and the component of triangle and use them to solve problems
- To understand and identify the properties and the component of circle and use them to solve problems
- To identify the properties and the component of non convex edge three dimensions geometrical shape
- To identify the properties and the component of convex edge three dimensions geometrical shape
- Probability and Statistics
- To hold statistical activities

## Algebra

- To understand, hold and use algebraic operations, linear inequalities with one variable and sets to solve problems.
- To understand, hold and use algebraic operations, functions, line equations, and equation systems to solve problems
- To hold operations with negative exponents numbers and logarithm.
- To describe pattern and series of numbers and use them to solve problems.
- To understand and use quadratic equations to solve problems.





# NOVICE TEACHERS' PERCEPTION ON GOOD TEXTBOOK FOR MATHEMATICS

No	Novice Teacher who do not have experienced in Lesson Study Activities (N Total = 15)		Novice Teacher who has experienced in Lesson Study Activities (N Total = 15)	
	Unstructured Perceptions		Unstructured Perceptions	
1.	The textbook should be systematic	20,00%		
2.	The <u>Texbook</u> should be completed by exercise	13,34%		
3.	It should be completed by good assessment	13,34%		
4.	There should be a remedial activity	13,34%		
5.	The textbook should be understandable, meaningful, and consist of good example	100,00 %	The textbook should be understandable, meaningful, and consist of good example	100,00 %
6.	The textbook should have a good design	13,34%	The textbook should have a good design	13,34%
7.	The textbook should use simple, communicative and standard language	80,00%	The textbook should use simple, communicative and standard language	13,34%
8.	It should comprehensive in term of content and students' competence (affective, psychomotor and cognitive)	53,34%	It should comprehensive in term of content and students' competence (affective, psychomotor and cognitive)	13,34%
9.	It should be interesting in display , performance and good illustration and good layout	20,00%	It should be interesting in display , performance and good illustration and good layout	20,00%
10.	It should be relevant and applicable to daily life	20,00%	It should be relevant and applicable to daily life	80,00%
11.	It should be innovative	20,00%	It should be innovative	20,00%
12.	It should facilitate students' activities		It should facilitate students' activities	13,34%
13.	It should be contextual textbook	13,34%	It should be contextual textbook	20,00%
14.	Psychological aspect of students e.g to motivate the students	13,34%	Psychological aspect of students e.g to motivate the students	13,34%
15.	It should be curriculum-based textbook	13,34%	It should be curriculum-based textbook	26,67%
16.	It should contain good problem solving	13,34%	It should contain good problem solving	13,34%
17.	It should promote active learners	13,34%	It should promote active learners	13,34%
18.			It should be supported by references	13,34%
19.			It should be cheap	20,00%
20.			It should facilitate students' need	66,67%
21.			It promotes self learner /self using	66,67%
22.			It needs to promote mathematical thinking	20,00%
23.			How to develop contextual textbook	20,00%
24.			It should completed by students. worksheet	13,34%
25.			It should meet with students, need	20,00%

# EXPERIENCED TEACHERS' PERCEPTION ON GOOD TEXTBOOK FOR MATHEMATICS

No	Experienced Teacher who has not experienced in Lesson Study Activities (N Total = 15)		Experienced Teachers who has experienced in Lesson Study Activities (N Total = 15)	
	Unstructured Perceptions		Unstructured Perceptions	
1.	It should not gender, ethnic bias and should concern with human rights	13,34%	It should not gender, ethnic bias and should concern with human rights	13,34%
2.	It should be cheap	40,00%	It should be cheap	20,00%
3.	The textbook should be understandable/ meaningful	80,00%	The textbook should be understandable/ meaningful	100,00%
4.	The textbook should use simple, informative, communicative and standard language	66,67%	The textbook should use simple, informative, communicative and standard language	60,00%
5.	The Textbook should be completed by exercise	13,34%	The Textbook should be completed by exercise	53,34%
6.	It should be relevant and applicable	13,34%	It should be relevant and applicable	100,00%
7.	It should comprehensive in term of content and students' competence (affective, psychomotor and cognitive)	13,34%	It should comprehensive in term of content and students' competence (affective, psychomotor and cognitive)	60,00%
8.	It should be interactive textbook e.g. completed by CD	13,34%	It should be interactive textbook e.g. completed by CD	60,00%
9.	It should be interesting in display , performance and good illustration and good layout	26,67%	It should be interesting in display , performance and good illustration and good layout	66,67%
10.	How to develop curriculum-based textbook	26,67%	How to develop curriculum-based textbook	60,00%
11.	How to develop contextual textbook	13,34%	How to develop contextual textbook	73,34%
12.	It should be relevant and applicable to daily life	26,67%	It should be relevant and applicable to daily life	73,34%
13.			It should promote constructive approach	66,67%
14.			It should promote students involvement and participation	66,67%
15.			It promotes self learner /self using	73,34%
16.			It should promote cooperative learning	80,00%
17.			It should promote mathematical thinking and creativity	53,34%
18.			It needs to develop assessment	60,00%
19.			It should match with students competencies (needs)	66,67%
20.			It should be a life-skill approach textbook	66,67%
21.			It should be completed with problem solving activities	53,34%
22.			It should be completed with problem posing activities	53,34%
23.			It should be completed with open ended activities	53,34%
24.			It promotes self learner /self using	73,34%
25.			It should be a scientific book	46,67%
26.			It should be completed by students worksheet	53,34%

# NOVICE TEACHERS' PERCEPTION OF THE CONSTRAINTS OF DEVELOPING TEXTBOOK FOR MATHEMATICS

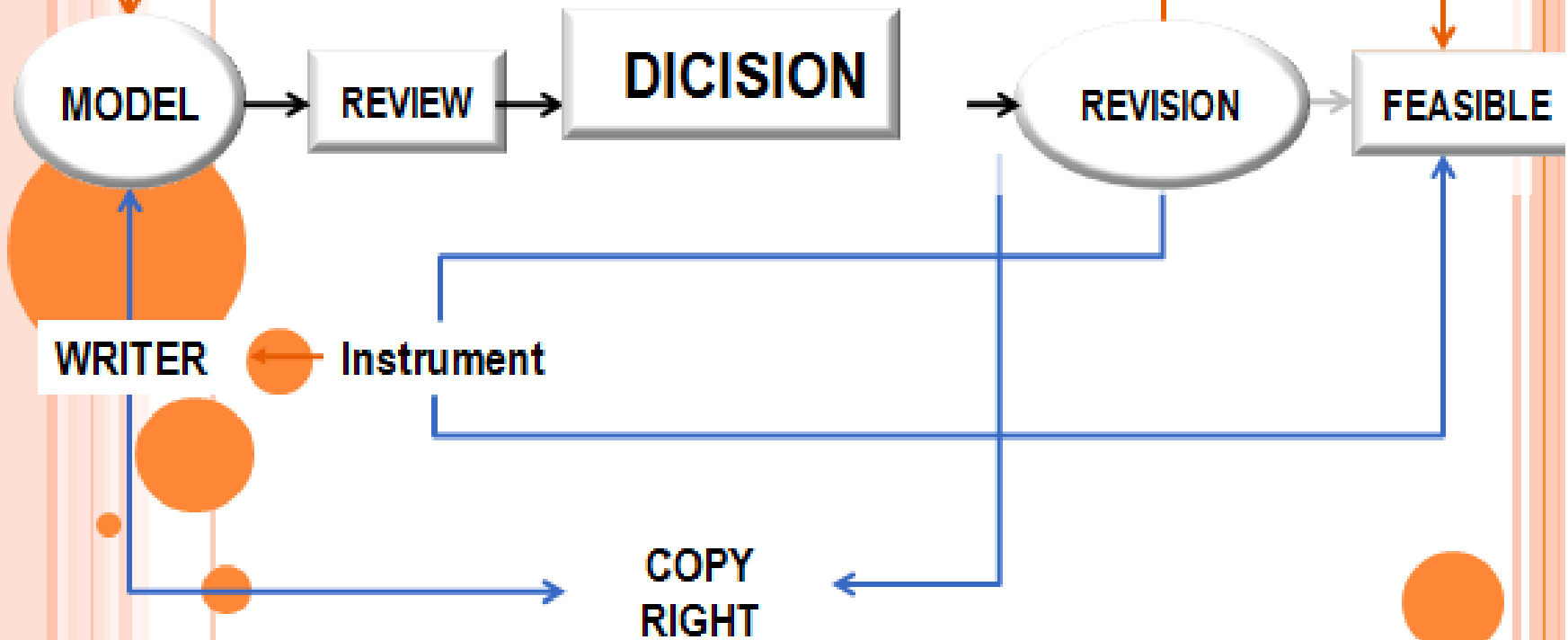
No	Novice Teacher who do not has experienced in Lesson Study Activities (N Total = 15)		Novice Teacher who has experienced in Lesson Study Activities (N Total = 15)	
	Unstructured Indications		Unstructured Indications	
1.	Difficult to develop the design of textbook	6,67%		
2.	It is difficult to develop comprehensive textbook	13,34%		
3.	It is difficult to develop interesting and good illustration textbook	20,00%		
4.	How to develop thematic textbook	6,67%		
5.	Textbook as a guide book for students	6,67%		
6.	Difficult to determine the theme of textbook	33,34%	Difficult to determine the theme of textbook	26,67%
7.	Difficult to collect references	26,67%	Difficult to collect references	6,67%
8.	Difficult to manage/allocate the time	40,00%	Difficult to manage/allocate the time	13,34%
9.	It need to budget	33,34%	It need to budget	6,67%
10.	It lack of skill to write or produce good textbook	53,34%	It lack of skill to write or produce good textbook	33,34%
11.	The idea or concepts of textbook and its paradigm	20,00%	The idea or concepts of textbook and its paradigm	40,00%
12.	How it content problem solving	6,67%	How it content problem solving	20,00%
13.	How it uses simple, communicative and standard language	13,34%	How it uses simple, communicative and standard language	20,00%
14.	How to develop curriculum-based textbook	20,00%	How to develop curriculum-based textbook	40,00%
15.	Psychological aspect of students e.g to motivate the students	6,67%	Psychological aspect of students e.g to motivate the students	20,00%
16.	How it promotes students as active learners	6,67%	How it promotes students as active learners/	6,67%
17.			How to meet with students characteristic and students' need	26,67%
18.			How to make it as contextual textbook	33,34%
19.			How it adapts the theory of education	26,67%
20.			How it promotes mathematical thinking	20,00%
21.			How it can be used by all students/	6,67%
22.			How to make it as a standardized textbook	6,67%
23.			How to facilitate students competences	6,67%

# EXPERIENCED TEACHERS' PERCEPTION OF THE CONSTRAINTS OF DEVELOPING TEXTBOOK FOR MATHEMATICS

No	Experienced Teacher who do not have experienced in Lesson Study Activities (N Total = 15)		Experienced Teacher who has experienced in Lesson Study Activities (N Total = 15)	
	Unstructured Indications		Unstructured Indications	
1.	Unsupported Publisher Perception/	13,34%		
2.	It need supporting beaucracy/system (it need supporting regulation from the gov.)	26,67%		
3.	It is difficult to find sponsorship or counterpart/	13,34%	It is difficult to find sponsorship or counterpart//	20,00%
4.	Difficult to manage/allocate the time	26,67%	Difficult to manage/allocate the time	40,00%
5.	How it uses simple, communicative and standard language	13,34%	How it uses simple, communicative and standard language	60,00%
6.	How to develop curriculum-based textbook	53,34%	How to develop curriculum-based textbook	66,67%
7.	How to match with students competencies (needs)	20,00%	How to match with students competencies (needs)	40,00%
8.	How to develop life-skill approach textbook	13,34%	How to develop life-skill approach textbook	60,00%
9.	How to develop contemporary textbook	26,67%	How to develop contemporary textbook	73,34%
10.	How to develop textbook as student media to learn	13,34%	How to develop textbook as student media to learn	60,00%
11.	How to develop contextual textbook	13,34%	How to develop contextual textbook	100,00%
12.	How to develop interactive textbook e.g. completed by CD or link to internet	13,34%	How to develop interactive textbook e.g. completed by CD or link to internet	80,00%
13.	It lack of references	26,67%	It lack of references	53,34%
14.	It needs to develop assessment	13,34%	It needs to develop assessment	53,34%
15.			How it promotes active learner	60,00%
16.			How to develop its students worksheet	53,34%
17.			How to develop innovative <u>textboo</u>	40,00%
18.			It should be interesting in display , performance and good illustration and good layout	20,00%
19.			How to develop standardized textbook	20,00%
20.			How to promote mathematical thinking and creativity	13,34%

**TO BE  
PUBLISHED**

**PUBLISHER** ← Instrument



**THE STEP FOR PUBLISHING THE TEXTBOOK**

THANK YOU

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