

# Educational Cost Effectiveness through the Contribution of Teacher's Competency and Learning Media Costs Perspective

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**Abstract-** *The focus of this study on the effectiveness of education costs is specifically limited to the contribution of education costs to the quality of learning outcomes through improving teacher competencies and providing learning media. The problem is limited to the financing of teacher competencies and Mathematics learning media in high schools in the city of Bandung in the academic year 2011 - 2014. The method used is quantitative analytical descriptive with data collection techniques using, interviews, observations and questionnaires based on ratio / numerical scale. The population of this study were all senior high school principals in the city of Bandung. Sampling by using purposive sampling, the number of research samples determined as respondents as many as 27 schools. Data analysis techniques using simple linear regression and multiple linear regression. Data processing using the SPSS program.21. The results of the study show: (1) the contribution of financing to increase the competence of mathematics teachers towards the quality of learning outcomes is 0.275 in the medium category. (2) the contribution of financing for learning media to the quality of learning outcomes is 0.562 with a weak category. (3) Simultaneously the contribution of teacher competency financing and the cost of learning media is 0.576 with the medium category.*

**General Terms-** *Educational Cost Effectiveness.*

**Keywords-** *learning media; quality learning outcomes; teacher competencies; tuition fees*

## 1. INTRODUCTION

Education financing is an important aspect of education. The issue of education financing covers various aspects, ranging from how to mobilize, distribute it, and oversee its use to be effective and efficient. Every citizen has the same right to obtain quality education (Indonesian Law Number 20 Year 2003 concerning the National Education System, article 5 paragraph 1). Quality education will not be achieved if the "fund" factor is not available. Therefore, the Government and Regional Government must guarantee the availability of funds for the implementation of education for every citizen aged seven to fifteen years (article 11 paragraph (2)) and must allocate a minimum of 20% of the State Budget and Regional Budget (article 49 paragraph (1)).

Management of education funds is based on the principles of justice, efficiency, transparency and public accountability (article 48 paragraph (1)). Good planning requires the availability of data support that truly reflects the actual situation (accurate) and up-to-date. Another requirement that is no less important is the process of preparation that is truly in line with needs. Proper allocation so that education financing becomes effective and efficient. Weaknesses in planning, formulating and implementing the budget will have an impact on the quality of education.

Community involvement can participate in the planning, implementation, supervision and evaluation of education programs. To instill public trust in the implementation of school education requires serious handling given their different needs, requirements, and interests, for handling the school against them according to the characteristics of each school (Sergiovanni et al., 1987: 32)[20].

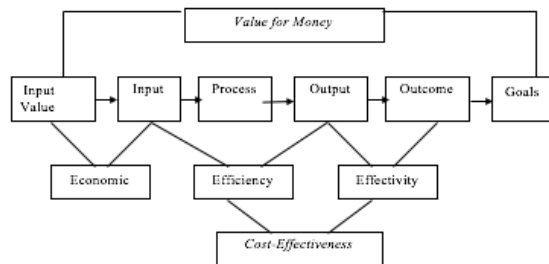
Improving the quality of education can be applied through the quality of learning. Quality of learning is the first and first priority that must be carried out continuously and systematically. The quality of learning will increase, if the learning process takes place efficiently, productively, effectively, relevant, and learners experience the learning process meaningfully, as well as supported by infrastructure, human resources and supported by adequate costs.

Education financing is a very important problem in the overall development of the education system. Money is not everything in determining the quality of education, but all educational activities require money. Therefore, if the education system performance is improved, the budget management is also impossible to be left, given that the budget must support activities. Not all Indonesians are fully aware that sufficient education costs will be able to overcome various educational problems, even though not all problems will be resolved completely. From the background and problems, the writer is interested in doing

research on the contribution of financing the teacher competencies improvement and mathematics learning media towards the quality of learning outcomes.

## 2. REVIEW OF LITERATURE

A new perspective of government management (New Public Management) according to Osborne and Gaebler (1992)[18] known as "Reinventing Government" has characteristics; (1) catalytic governance which focuses on providing direction and not on the production of public services, (2) government owned by the community, in the sense of empowering the community rather than serving, (3) a competitive government, namely applying the spirit of competition in the provision of public services, (4) a government that is driven by a mission, changes the organization that is driven by regulations, becomes a mission-driven organization, (5) a results-oriented government, that is, financing the results rather than financing inputs, (6) a customer-oriented government, in the sense of fulfilling customer needs and meet the needs of the bureaucracy, (7) entrepreneurial government, which is able to create income and not just spend, (8) anticipatory government, which seeks to prevent rather than treat, (9) decentralized government, namely from khirarkhi to participatory and work teams, (10) governance that is market-oriented, changes with mechanics market ism (incentive system) and not an administrative mechanism (system of procedures and coercion) (Mardiasmo, 2004: 79-82).



**Figure 1**  
Value for Money Measurement (Mardiasmo, 2004: 132)

Cost management information, information needed to effectively manage a company or non-profit organization (Blocher et al., 2000: 2)[2]. Four cost management functions (Blocher et al., 2000: 3-8)[2] are (1) strategic management, (2) planning and decision making, (3) management and operational control, and (4) preparing financial reports. Whereas (Hansen and Mowen, 2000; 2) are costs for planning, decision making and control. Strategic cost management is the development of cost management information to assist the main management function, namely strategic management (Blocher et al., 2000: 6)[2].

Cost objects are things or activities where costs are accumulated for management purposes consisting of (1) interconnected products or product groups, (2) services, (3) departments (engineering, human resources) and (4)

projects (research, promotion marketing or community service business) (Blocher et al., 2000: 8)[2].

Changes in the business environment lately have resulted in significant changes in management practices. The main factors that influence this are; (1) increasing global competition, (2) sophistication of information and manufacturing technology, (3) customer-focused, (4) new forms of management organizations and (5) socio-political and cultural changes (Blocher et al., 2000: 9-12)[2].

Budgeting is an activity or budgeting process. Budget is an operational plan that is expressed quantitatively in the form of a unit of money used as a guideline in carrying out institutional activities within a certain period of time. Therefore, the budget illustrates activities that will be carried out by an institution. Budgeting is a positive step to realize the plan that has been prepared (Fattah, 2002: 47)[9].

Budget is a statement about the estimated performance to be achieved over a certain period of time expressed in financial measures, while budgeting is the process or method for preparing a budget. Public sector budgeting is a fairly complicated stage and contains high political meaning (Mardiasmo, 2004: 61).

Budgeting is the process of determining the amount of fund allocation for each program and activity in monetary units, which starts from the formulation of strategies and strategic planning. "The budget is an articulation of the results of the strategy formulation and strategic planning that has been made". "The budget is a managerial plan for action to facilitate the achievement of organizational goals."

Some aspects that must be included in the public sector budget include; (1) planning aspects, (2) control aspects, and (3) aspects of public accountability. The budget contains a plan of activities that represent in the form of income and expenditure in units of money (Mardiasmo, 2004: 62; Fattah, 2002: 47-48). In summary, the budget for a financial plan stating; (1) the amount of fees for plans (expenditure) and (2) the amount and method of obtaining funds to finance plans (income).

Cost effectiveness as a technique for measuring the performance of public sector budgets that compares the price of input values with the objectives to be achieved (Mardiasmo, 2004; Ketner et.al., 1990)[15]. As a benchmark for the success of a budget system seen from financial and non-financial measures. Financial measures consist of cost-effectiveness and value for money, while non-financial measures are viewed from four perspectives: financial performance, customer satisfaction, internal business processes and learning-innovations (Mardiasmo, 2004; Kaplan and Norton, 1996). Cost effectiveness is a combination of information effectiveness with efficiency, while value for money is a combination of economy, effectiveness and efficiency (Mardiasmo, 2004; 133). Cost effectiveness analysis is a form of economic analysis that compares the relative

costs with the outcomes-effects of different activities (Wikipedia).

The implementation of effectiveness cost in the field of education includes measurement of continuing numbers, participation or level of attendance at school, also measuring quality such as development of knowledge, academic or non-academic achievement (McEwan, 2012: 191)[17]. Furthermore, he stated that estimation of effectiveness are valid internally when identifying a credible cause and effect relationship between interventions and measurable results, in a particular sample of subjects. The causal effect of intervention is the difference between subject outcomes when given an intervention and the same subject matter when not intervened is also called the counterfactual term. An estimate of effectiveness is valid externally when it can apply to different interventions, with different sample subjects and different policy contexts.

## 2.1. Value for Money as a Measurement of Financial Performance

A budget process will include the value of input, input, process, output, out come, and finally the achievement of goals. To measure the performance of the public sector budget, analysis techniques can be used using Value for Money, economical and cost effectiveness, which are the results of efficiency and effectiveness analysis. Value for Money is the result of a comparison of the price of input values with the objectives to be achieved. Economical is the ratio of input value to input, efficiency is the comparison of input with output, while effectiveness is the comparison of output with outcome. As a visualization, figure 1 can be considered.

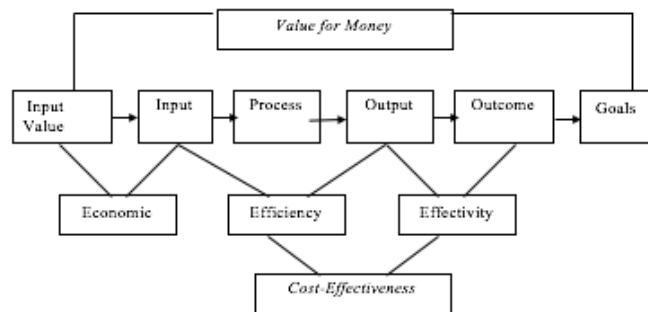


Figure 1  
Value for Money Measurement (Mardiasmo, 2004: 132)

## 3. METHODOLOGY

The method used is quantitative analytical descriptive with data collection techniques using, interviews, observations and questionnaires based on ratio / numerical scale. The population of this study were all senior high school principals in the city of Bandung. Sampling by using purposive sampling, the number of research samples determined as respondents as many as 27 schools. Data analysis techniques using simple linear

regression and multiple linear regression. Data processing using the SPSS program.<sup>21</sup>

## 4. FINDINGS

### 4.1. Research Result Description

#### 4.1.1. Teacher Competency Improvement Costs

Funding for increasing Teacher Competence is very necessary to support the process of Teaching and Learning Activities. So that the goal of education is to improve the quality of graduates can be achieved. This is in accordance with Law No. 14 of 2005 concerning teachers and lecturers in article 13 that the central government and regional governments are obliged to provide budgets related to improving teacher competencies including enhancing academic qualifications, educator certification and professional development. Based on the results of the study that the Competency Cost of Mathematics Teachers in Bandung State High School (SMA Negeri) 2011/2012 to 2013/2014 academic year obtained an average value of IDR 47,129,667. With the lowest cost of SMA Negeri 19 Bandung that is IDR 45,636,000 and the highest cost of IDR 50,331,000 from SMA Negeri 3 Bandung.

#### 4.1.2. Financing Mathematics Learning Media Improvement

Aside from teacher competency, which is very instrumental in the smooth process of learning is financing for improving infrastructure and learning media. This involves procurement and maintenance. This fee comes from the government and most of the parents of students, because until now the State High Schools in Bandung City have not received the School Operational Assistance program. Except for SMA Negeri 27 Bandung. Based on the results of the study that the Cost of Mathematics Learning Media for all Public High Schools in Bandung City in the 2011/2012 school year until 2013/2014 obtained an average value of IDR 2,178,037 with the highest cost in SMA 5 Bandung of IDR 4,550,000. While the lowest cost is in the SMA Negeri 19 Bandung and SMA Negeri 14 Bandung with the cost of IDR 1,450,000 each. This shows that the expenditure to increase the procurement and maintenance of learning media, especially in mathematics, is very low when compared to the total expenditure of the School's Activity and Budget Plan.

#### 4.1.3. Learning Outcomes Quality

The current increase in financing by the government is intended to improve the quality of student learning outcomes. Based on the results of the study that the average value of mathematics learning outcomes achieved was 7.44 with the highest value of 8.04 namely SMA Negeri 1 Bandung and the lowest value by SMA Negeri 27 with a value of 6.44. From the average value, it shows the equal distribution of learning outcomes achieved by students of public high schools in Bandung.



## 4.2. Correlation Analysis

As a guideline for interpreting the correlation coefficient, the criteria for table 4.5 as proposed by Sugiyono (2013)[21]. Data processing was carried out with the help of SPSS v21.0 software.

Table 1. Guidelines for Interpreting Correlation Coefficients

Coefficients Interval	Relationship Level
0,00 – 0199	Extremely Weak
0,20 - 0,399	Weak
0,40 - 0,599	Medium
0,60 - 0,799	Strong
0,80 - 1,000	Extremely Strong

### Relationship Analysis on Teacher Competency Costs and the Quality of Learning Outcomes

Correlation coefficient value between the cost of teacher competency and quality of learning outcomes is 0.275, with a correlation coefficient of 0.275 meaning that the relationship of teacher competence costs with quality of learning outcomes there is a weak relationship at intervals of 0.20 - 0.399. The results can be listened to in the following table:

Table 2. Teacher Competency Costs and Quality of Learning Outcomes Relationship

Correlations			
		Teacher Competency Cost (X1)	Learning Outcomes (Y)
Teacher Competency Cost (X1)	Pearson Correlation	1	,275
	Sig. (2-tailed)		,166
	N	27	27
Learning Outcomes (Y)	Pearson Correlation	,275	1
	Sig. (2-tailed)	,166	
	N	27	27

### Relationship Analysis on Learning Media Costs and Learning Outcomes Quality

The value of correlation coefficient between the learning media cost with the learning outcomes quality shown 0.562 with a correlation coefficient of 0.562 means that the relationship is in a medium relationship (range in the interval 0.40 - 0.599).

Table 3. Learning Media Costs and Quality of Learning Outcomes Relationship

Correlations			
		Learning Media Cost (X2)	Learning Outcomes (Y)
Learning Media Cost (X2)	Pearson Correlation	1	,562**
	Sig. (2-tailed)		,002
	N	27	27
Learning Outcomes (Y)	Pearson Correlation	,562**	1
	Sig. (2-tailed)	,002	
	N	27	27

\*\* Correlation is significant at the 0.01 level (2-tailed).

### Relationship Analysis on Teacher Competency Costs and Learning Media Costs toward the Learning Outcomes Quality

The value of the correlation coefficient between the cost of teacher competency and the cost of learning media toward the learning outcomes quality is 0.576. This means that the relationship of teacher competency costs and the cost of learning media toward the learning outcomes quality has a relationship at a moderate level as it ranges in the interval 0.40 - 0.599.

Table 4. Teacher Competency Costs and Learning Media Costs toward the Learning Outcomes Quality

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,576 <sup>a</sup>	,332	,276	,29267

a. Predictors: (Constant), Learning Media Cost (X2), Teacher Competency Cost (X1)

### Multiple Regression Test

The multiple linear regression equations to be formed are:

$$\hat{Y} = a + b_1X_1 + b_2X_2$$

Note:

Y = Learning Outcomes Quality

a = Constant

X<sub>1</sub> = Teacher Competency Cost

X<sub>2</sub> = Learning Media Cost

b<sub>i</sub> = The regression coefficients of each independent variable

By using SPSS .21 software, obtained the results of multiple linear regression analysis as follows:

Table 5. Multiple Regression Coefficients

Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	8,954	2,754	
	Teacher Competence Cost (X1)	-,046	,061	-,167
		,306	,101	,672

a. Dependent Variable: Learning Outcomes Quality (Y)

Based on the results of the calculation above, it can be seen that the regression coefficient value is the *Unstandardized Coefficients "B"* value, so that the multiple linear regression equation is obtained as follows:

$$\hat{Y} = 8,954 + -0,046X_1 + 0,306X_2$$

From the results of the regression equation, each variable can be interpreted as follows:

- A constant value of 8.954 means that if all the independent variables (X) are the cost of teacher competency and the cost of learning media (zero) and no changes, the quality of learning outcomes is 8.954.
- The value of teacher competency costs (X1) is - 0.046, meaning that if the cost of teacher competency increases by 1 million while the cost variable of learning media is constant, then the quality of learning outcomes will decrease by 0.046 million.

- c. The value of learning media costs (X2) is 0.306, meaning that if the cost of learning media has increased by 1 million while the variable cost of teacher competence is constant, the quality of learning outcomes will increase by 0.306 million.

#### Simultaneous Hypothesis Test (Test F)

The hypothesis that will be tested on this simultaneous test are:

- $H_0 : \beta = 0$  The cost of teacher competency and learning media cost simultaneously have no significant effect on the learning outcomes quality.
- $H_a : \beta \neq 0$  The cost of teacher competency and learning media cost simultaneously have significant effect on the learning outcomes quality.

Significant level ( $\alpha$ ) of 0.05 or 5%

Criteria: reject  $H_0$  if  $F_{\text{count}} > F_{\text{table}}$ , accept  $H_a$  if  $F_{\text{count}} < F_{\text{table}}$

By using SPSS 21 software, obtained the following output:

Table 6. Significance Test (F Test)

ANOVA <sup>a</sup>					
Model		Sum of Squares	df	Mean Square	F
1	Regression	1,020	2	,510	5,957
	Residual	2,056	24	,086	
	Total	3,076	26		

- a. Dependent Variable: Learning Outcomes Quality (Y)
- b. Predictors: (Constant), Learning Media Cost (X2), Teacher Competency Cost (X1)

Based on the output above, it is known the value  $F_{\text{count}}$  of 5,957 with  $p\text{-value (sig)} = 0,008$ . By having  $\alpha=0,05$ ,  $df_1=2$ , and  $df_2=(n-k-1)=24$ , then  $F_{\text{table}} = 3,403$ . As  $F_{\text{count}} > F_{\text{table}}$  ( $5,957 > 3,403$ ) and significant value shown  $0,008 < 0,05$  then  $H_0$  rejected. This means that the cost of teacher competence and the cost of learning media simultaneously have a significant effect on the quality of learning outcomes. If presented in the picture, then  $F_{\text{count}}$  dan  $F_{\text{table}}$ :

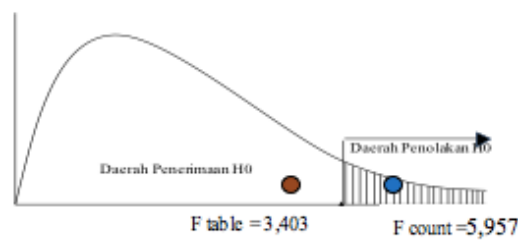


Figure 2. Simultaneous Hypothesis Test Curves X1 and X2 towards Y

To see the significance partially, the following is a partial test using the T test with a simple regression method.

#### Simple Regression Method

The simple linear regression equations that will be formed are:

$$Y = a + bX$$

Y= Learning Outcomes Quality

A= Constant

B= Regression Coefficient

X= Teacher Competence Costs

By using SPSS.21 software, the results of simple linear regression analysis are as follows:

Table 7. Simple Regression Coefficients

Coefficients <sup>a</sup>			
Model		Unstandardized Coefficients	
		B	Std. Error
1	(Constant)	3,851	2,513
	Biaya Kompetensi Guru (X1)	,076	,053

a. Dependent Variable: Mutu Hasil Belajar (Y)

Based on the output above, obtained a value of 3.851 and b value of 0.076. Thus, a simple linear regression equation can be formed as follows:

$$Y = 3,851 + 0,076X_1$$

The values a and b in the above equation can be interpreted as follows:

a = 3,851 means: If the cost of teacher competence is 0 units, the quality of learning outcomes will be 3.851 units.

b = 0,076 means: If the cost of teacher competence increases by one unit then the purchase decision will increase by 0.076 units.

#### Partial Hypothesis Testing (T Test)

By using SPSS.21 software, the results are as follow:

Table 8. Partial Hypothesis Testing (T Test)

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error		
1	(Constant)	3,851	2,513		1,533
	Biaya Kompetensi Guru (X1)	,076	,053	,275	1,428

a. Dependent Variable: Mutu Hasil Belajar (Y)

$H_0$  (Hypothesis Nul)

$H_0 : \beta \leq 0$  The cost of teacher competence partially has no significant effect on the quality of learning outcomes.

$H_a : \beta > 0$  The cost of teacher competence partially has a significant effect on the quality of learning outcomes.

Significant level ( $\alpha$ ) 5%,  $df = 24$  so  $t_{\text{table}}$  reached 2,064 with criteria of rejected  $H_0$  if  $t_{\text{count}}$  is more than  $t_{\text{table}}$ .

From the output table values obtained  $t_{\text{count}}$  for Teacher Competence Costs (X1) is 1,428 and  $t_{\text{table}}$  2,064. As  $t_{\text{count}}$  is smaller than  $t_{\text{table}}$  ( $1,428 < 2,064$ ) with significant value of 0,166  $> 0,05$  then  $H_0$  accepted. This means that the cost of teacher competency costs partially does not significantly influence the learning outcomes quality. If

described,  $t_{\text{count}}$  and  $t_{\text{table}}$  for Partial Hypothesis Testing  $X_1$  can be seen as:

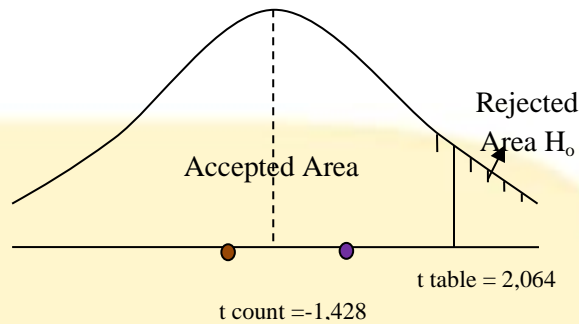


Figure 3  $X_1$  Partial Hypothesis Test Curve Towards Y

### Simple Regression Test (T Test) Variable Cost of Learning Media

The simple linear regression equations that will be formed are:

$$Y = a + bX$$

$Y$  = Learning Quality Outcomes

$A$  = Constant

$B$  = Regression Coefficient

$X$  = Learning Media Costs

By using SPSS.21 software, the results of simple linear regression analysis are as follows:

Table 9. Simple Regression Coefficient

Coefficients <sup>a</sup>			
Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
1 (Constant)	6,880	,174	
Biaya Media Pembelajaran (X2)	,256	,075	,562

a. Dependent Variable: Mutu Hasil Belajar (Y)

Based on the above output, a value of 6.880 is obtained and a value of b is 0.256. Thus, a simple linear regression equation can be formed as follows:

$$Y = 6,880 + 0,256X_2$$

The values a and b in the above equation can be interpreted as follows:

- a = 6,880 means: If the cost of learning media is 0 units, the quality of learning outcomes will be worth 6.880 million.
- b = 0,256 means: If the cost of learning media increases by 1 million, the purchase decision will increase by 0.256 million.

### Partial Hypothesis Testing (T Test)

By using the SPSS.21 program, the following results are obtained:

Table 10. Partial Hypothesis Test (T Test)

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	6,880	,174		39,638	,000
Biaya Media Pembelajaran (X2)	,256	,075	,562	3,397	,002

a. Dependent Variable: Mutu Hasil Belajar (Y)

$H_0$  (Hypothesis Null)

$H_0: \beta \leq 0$

The cost of learning media partially does not significantly influence the quality of learning outcomes.

$H_a: \beta > 0$

The cost of learning media partially has a significant effect on the quality of learning outcomes.

Significant level ( $\alpha$ ) of 5%,  $df = 24$  for 1 side (positive) it's obtained  $t_{\text{table}} 2,064$  with criteria, Rejected  $H_0$  if  $t_{\text{count}}$  is more than  $t_{\text{table}}$ .

From the output table values are obtained  $t_{\text{count}}$  for learning media costs ( $X_2$ ) of 3,397 and  $t_{\text{table}} 2,064$ . As for  $t_{\text{count}}$  is more than  $t_{\text{table}}$  ( $3,397 > 2,064$ ) with significant value of  $0,002 < 0,05$  then  $H_0$  being rejected. This means that the cost of learning media partially has a significant effect on the quality of learning outcomes. If described,  $t_{\text{count}}$  and  $t_{\text{table}}$  for partial testing  $X_2$  appears as follows:

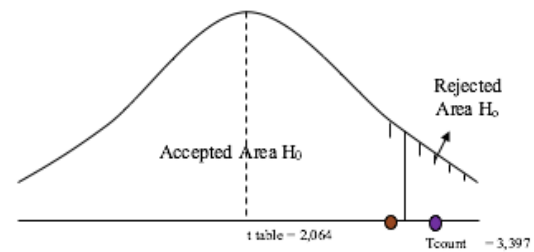


Figure 4  $X_2$  Partial Hypothesis Test Curve Towards Y

### Determination Coefficient

The Determination Coefficient ( $r^2$ ) is used to measure how far the ability of independent variables ( $X$ ) simultaneously in contributing or influencing the dependent variable ( $Y$ ). By using SPSS v.21 software, the following outputs are obtained:

Table 11. Determination Coefficient (R-square)

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,576 <sup>a</sup>	,332	,276	,29267

a. Predictors: (Constant), Biaya Media Pembelajaran (X2), Biaya Kompetensi Guru (X1)

b. Dependent Variable: Mutu Hasil Belajar (Y)

From the table above, it is known that the coefficient of determination or R square is 0.332 or 33.2%. This shows



that the variable cost of teacher competence and the cost of learning media simultaneously influence the quality of learning outcomes by 33.2% while the remaining 66.8% is the influence or contribution of other variables not examined in addition to variable costs of teacher competence and media costs lesson. Meanwhile, to determine the effect of each independent variable on the dependent variable partially, it is done by means of the *beta X zero order* on the SPSS output as follows:

Table 12. Partial Determination Coefficient

Coefficients <sup>a</sup>					
Model		Standardized Coefficients	Correlations		
		Beta	Zero-order	Partial	Part
1	Biaya kompetensi guru (X1)	,140	,509	,170	,115
	Biaya media pelajaran (X2)	,655	,733	,628	,541

a. Dependent Variable: Mutu hasil belajar (Y)

The following is the partial effect of the independent variable on the dependent variable with the formula *beta X zero order*:

1. Variable media of teacher competence costs  
=  $0,140 \times 0,509 = 0,071$  or 7,1%
2. Variable of learning media costs  
=  $0,655 \times 0,733 = 0,480$  or 48%

From the results of the calculations above, it is known that learning media costs (X<sub>2</sub>) provide the most dominant influence on the learning outcomes quality (Y) with 48% contribution, while teacher competence costs provide only 7%.

## 5. DISCUSSION

The results of testing the first hypothesis have shown empirical evidence that there is no positive and significant influence between financing the improvement of teacher competence and the quality of learning outcomes. The results of the data analysis above show that the numbers of  $t_{\text{count}} < t_{\text{table}}$  ( $1,428 < 2,064$ ).

Based on the results of these studies it can also be stated that one of the efforts that can be done to improve the quality of learning outcomes is by increasing funding for improving teacher competence. The implications of this increase in financing are expected to be able to improve teacher competencies that support towards improving the quality of the learning process and results.

The results of testing the second hypothesis have shown empirical evidence of a positive and significant influence between financing the improvement of learning media and the quality of learning outcomes. The results of the data analysis above show that the numbers of  $t_{\text{count}} > t_{\text{table}}$  ( $3,397 > 2,064$ ).

This study supports previous research conducted by Fattah (1998), to improve the quality of education the cost component is the main supporting element. The cost component that contributes significantly to the quality of the process and learning outcomes is salary/welfare;

teacher training costs; provision of learning facilities; coaching students; school management fees.

Complete and adequate school learning media will greatly assist learning activities to obtain results or goals to be achieved. The implications of increasing Learning Media financing are expected to be able to improve the quality of learning outcomes with optimal use.

The results of testing the third hypothesis shows empirical evidence of a positive and significant influence between financing for improving teacher competency and Learning Media together with the quality of learning outcomes. The calculation of multiple determination coefficients shows that 33.2% of variations that occur in the quality of learning outcomes can be explained together by increasing financing for teacher competencies and Learning Media. Some research that sufficient education funds tend to provide better services that impact on the quality of graduates. At schools that are supported by high costs can produce quality output

The third hypothesis also strengthens the theory that the costs and quality of education are directly related. Education costs provide a positive influence through the factors of leadership and management of education, as well as educators who are competent in improving education services through improving the quality of factors that influence the teaching and learning process (RLJohns, ELMorphet, K.Alexander, in Nanang Fattah 2004).

The results of statistical tests show that the central government is still a mainstay in funding education at senior high school level in line with the policy of increasing the budget for the allocation of education funding compared to the provincial government. Government policies related to free education for 12-year compulsory education make no contribution to public funding for public schools at all. The funding allocation for improving teacher competency ranged from 5.97% to reach 18.2% of the total expenditure of the School Budget and Expenditures, while for Learning Media reached 6.7% to 19.5% of the total expenditure of the School Budget.

## 6. CONCLUSION

Cost allocation for teacher competency is an average of Rp. 47,129,667. The lowest cost obtained from SMA Negeri 19 Bandung is IDR 45,636,000 and the highest cost is IDR 50,331,000 from SMA Negeri 3 Bandung. The average cost allocation for learning media is IDR 2,178,037 with the highest cost, namely SMA Negeri 5 Bandung with the cost of IDR 4,550,000.

The contribution of financing to improving teacher competence on the quality of learning outcomes is a moderate relationship, which is equal to 0.275. The contribution of financing to learning media to the quality of learning outcomes is a weak relationship, which is equal to 0.562. Simultaneously the media costs of teacher

competence and the cost of learning media contribute moderately with a correlation value of 0.576.

## 7. REFERENCES

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