

Capabilities Comparison of Surabaya and Malaysia Economic Teachers in Innovative Learning Model Application

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ABSTRACT

The objective of this study is to compare the capability of economic teachers in applying innovative learning models between teachers in Surabaya and Malaysia. Survey research methods, with data sources or participation of all high school / vocational school economics teachers in Surabaya City and economic teachers in Malaysia. Sampling technique uses probability random sampling, by appointing 100 teachers from Surabaya and 100 teachers from Malaysia. Techniques for collecting data use: (1) Questionnaire via email, (2) documentation study, on learning devices, with research instruments consisting of: (1) questionnaire, (2) learning device documents. Data from this study result are analyzed using descriptive statistics and SEM, to describe comparison in innovative learning models between teachers in Surabaya and Malaysia. The conclusions in this study include: (1) The understanding between Surabaya and Malaysia economic teachers has a significant effect on the innovative learning models application, (2) the ability of economic teachers not to support significantly in applying innovative learning models, (3) sustainable self-development for economic teachers in Surabaya and Malaysia have a significant effect on inner skills, applying innovative learning models in their classrooms.

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Keywords:

Teacher's capability, innovative learning, Surabaya, Malaysia.

INTRODUCTION

Teacher's creativity in implementing innovative learning models is required to improve the learning quality that is one responsibility. Innovative learning models are very diverse, so that demands the motivation and creativity of the teacher in choosing and applying in his class. According to Huda (2016) mastery of basic learning theories to develop learning that is necessary by teachers in learning in its class. The advancement of science and technology has led to a new paradigm in achieve success, namely with competition. The increasingly fierce challenge of competition in the globalization era demands increased quality and increased sustainable power, so that increasing professional competitiveness can be more competitive. The globalization era changes the nature of work from amateurs to professionalization in every field and aspect of life. Regarding global change is the teaching profession. In accordance to the demands of changing global society, the teacher tasks also demanded by professionals in their fields (Education International, 1998: 112). Professional teachers do not merely as a communication tool that will transform culture into a dynamic culture and demand mastery of science and technology, high productivity and quality of work that can increase competitiveness.

Adequate education development investment will be able to move the economy of the community undergo large multiplier effects through school construction, procurement and maintenance of educational infrastructure, and increased quality of teachers. A quality society, not only able to obtain every available job opportunity through investment, but also able to generate new employment opportunities. In addition to the education problem is a cross-sectoral problem, so there must be commitment from all parties who emphasize the significance of education to take policies that are oriented to the grade of quality education. The cause of improving the quality of education is high if it is addressed consistently, it will produce competent reforms, which ultimately results in competitive income. (Alma, 2009)

Educational programs to improve the quality of human resources are very critical because they involve government institutions, social institutions and various activities in the community that need it

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depending on the human resources quality, both in their intellectual capability and morals integrity in their accountability to society. (Ismail, 2010)

Human resources, according to Damanhuri (2004) are one of the key factors towards prosperity. Creating human resources that are of high quality and have expertise and are highly competitive, become development assistance towards prosperity. Economic globalization is a process of economic and trade activities that unites market forces increasingly integrated for efficiency and increasing competitiveness.

The low level of Indonesia's human development index has been impacted in the decline of Indonesia's competitiveness. This decline in competitiveness comes from the low quality of education in Indonesia. The low quality of education of the Indonesian between several supporting components of the education process, among others: quality of teachers, learning facilities such as textbooks, learning media, learning resources and inadequate learning laboratory equipment. The lack of educational support components is required by the lack of funding allocation for the implementation of education sourced from the State Expenditure Budget (APBN) and the contribution of education funds from the community (parents of students). (Kemdiknas, 2010)

The teachers role, including economic teachers, is very significant in improving academic quality, as well as academic experience that needs to be improved. Economic teachers have academic qualifications, competencies, educator certificates, spiritual and physical health and have the ability to realized national education goals. To improve economic teacher qualifications, the Surabaya City Education Service was approved with the UNESA Postgraduate Program to improve academic qualifications by sending economic teachers for further study of the Master degree, and various academic activities such as training, workshops, seminars, Group Discussion Forums (FGD) for teachers economy of Surabaya. This well-established collaboration is to update the competency of economic teachers so that their academic experience is continuously improved. (Soesatyo, 2017)

The above challenges are abstracted into formulation "what is the comparison of the quality of learning service between economic teachers in Surabaya and Malaysia in applying innovative learning models?". In this study the objective is to describe the role of economic teacher capabilities in Surabaya and in Malaysia in implementing innovative learning models in its class as an effort to improve the quality of learning services towards improving the quality of economic education.

METHOD

Generally this study purposed to describe and analyze the comparison of creativity carried out by economic teachers in applying innovative learning models between economic teachers in Surabaya and in Malaysia. In accordance with its objectives, this study was designed as an expofacto research model, that is to explain in reality, how the comparison of economic teacher creativity in applying innovative learning models in its class. To focus the study, this study is limited to the comparison of creativity of economic subject teachers in applying innovative learning models in daily learning between economic teachers in Surabaya and Malaysia. Focus of this study is to look at comparisons in applying innovative learning models, among economic teachers in Surabaya and Malaysia.

Population of this study were all Economic teachers in both high schools and vocational schools who served in the Surabaya City area which numbered 700 people spread across various sub-districts in the city of Surabaya (Diknas Kota Surabaya, 2016), and teachers of economic subjects who served in Malaysia. Determination of the sample in this study using probability random sampling, and cluster sampling techniques based on the working area of the population, which is divided according to the area in Surabaya. Surabaya area is divided into 5 clusters (middle, north, south, east, west). Each cluster was determined by 20 respondents of economic education teachers in high school and vocational schools randomly selected. Thus, each cluster will be taken by 20 teachers of Economic as a sample that will represent population of the region, so that total number of samples is $5 \times 20 = 100$ samples. Whereas for respondents from Malaysia, determined 100 respondents as samples randomly selected by e-mail prepared.

The selection of the right type of data analysis is an critical factor in answering research problems. For this reason, after considering the objectives and hypotheses proposed and available data, 2 types of analysis are used in this study, namely: 1) Descriptive analysis, and 2) Simple regression analysis with t-test models, or different tests. Data collection through survey conducted by giving a questionnaire containing a number of questions and statements about the creativity of economic subject teachers in applying innovative



learning models by teachers both Surabaya and Malaysia. To gather information on innovative learning models application by teachers in Malaysia, carried out by email.

Results and Discussion

In this study, demographic data are measured. These data are expected to be information about the characteristics of respondents in several tables below:

Table 4.1 Frequency Distribution of Respondents by Teaching Experience

Duration (Year)	Surabaya (%)	Malaysia (%)
1-5	0,5	82
6-10	20	6,5
11-15	44,5	11,5
>15	35	0
Total	100	100

Source : Data processed by researcher (2018)

Based on the data obtained in the field, the teaching experience of the respondents are obtained. Based on the respondent's academic qualifications can be described as follows:

Table 4.2 Frequency Distribution of Respondents by Latest Education

Latest Education	Surabaya (%)	Malaysia (%)
Under Graduate	20	92,5
Master Degree	80	7,5
Post Graduate	0	0
Total	100	100

Source : Data processed by researcher (2018)

Based on the data obtained in the field, respondents' educational qualifications are found to be adequate and professional in conducting learning. While based on gender of the respondents

Table 4.3 Frequency Distribution of Respondents by Gender

Gender type	Surabaya (%)	Malaysia (%)
Male	35	15
Female	65	85
Total	100	100

Source : Data processed by researcher (2018)

Based on the data obtained in the field, location of the school where the teaching is obtained are presented in the following table.

Table 4.4 Frequency distribution of respondents by Teaching Place

Teaching Place	Surabaya (%)	Malaysia (%)
Secondary	2,5	91,5
Senior High	87,5	8,5
Total	100	100

Source : Data processed by researcher (2018)

Based on data obtained in the field, teaching place of the respondents, Surabaya commonly are studied in high schools, while Malaysia respondents generally taught in junior high school.

DATA ANALYSIS

1. Fit Model and Quality Indices

In the WarpPLS analysis there are several sizes of the Fit Model and Quality Indices will be explained as follows:

Table 4.5. Fit Model and Quality Indices

No	Model fit and Quality Indices	Fit Criterion	Surabaya		Malaysia	
			Analysis result	Commentary	Analysis result	Commentary
1	APC	$p < 0,05$	0,201 (P=0,015)	Good	0,169 (P=0.042)	Good
2	ARS	$p < 0,05$	0,102 (P=0,053)	Passably	0,065 (P=0,145)	Poorly
3	AARS	$p < 0,05$	0,106 (P=0,088)	Passably	0,033 (P=0,212)	Poorly
4	AVIF	acceptable if ≤ 5 , ideally ≤ 3.3	1,028	Ideal	1,054	Ideal
5	AFVIF	acceptable if ≤ 5 , ideally ≤ 3.3	1,124	Ideal	1,253	Ideal
6	GoF	small ≥ 0.1 , medium ≥ 0.25 , large ≥ 0.36	0,313	Ideal	0,212	Ideal
7	SPR	acceptable if ≥ 0.7 , ideally = 1	0,7	Ideal	0,7	Ideal
8	RSCR	acceptable if ≥ 0.9 , ideally = 1	0,950	Ideal	0,860	Ideal
9	SSR	acceptable if ≥ 0.7	1,000	Ideal	1,000	Ideal
10	NLBCDR	acceptable if ≥ 0.7	1,000	Ideal	0,7	Ideal

Source : Data processed by researcher (2018)

About all the results of the Fit Model and Quality Indices analysis, the results have meet the Model Fit requirements. Thus all data in this study have been said to be Fit.

1. Profile Variables

Information conveyed on variable profiles is a combination of identification of important indicators based on the loading factor value with empirical variable conditions based on the average score.

Table 4.6 Variable Profile of Surabaya economic teachers

No	Indicator	Loading factor	Average score	Suggestion
1	X1.1	-0.159	3,97	Downgraded
2	X1.2	0.002	4,63	Maintained
3	X1.3	0.029	4,87	Maintained
4	X1.4	0.163	4,43	Maintained
5	X1.5	0.043	4,93	Maintained
6	X1.6	0.278	4,90	Upgraded
7	X1.7	0.082	4,33	Maintained
8	X1.8	0.589	3,97	Upgraded
9	X1.9	0.037	4,40	Maintained
10	X1.10	0.000	3,97	Maintained
11	X2.1	0.307	4,87	Upgraded
12	X2.2	0.000	3,97	Maintained
13	X2.3	0.000	3,97	Maintained

14	X2.4	-0.074	3,57	Downgraded
15	X2.5	0.012	3,50	Maintained
16	X2.6	-0.716	2,03	Downgraded at once
17	X2.7	0.000	2,03	Maintained
18	X2.8	0.000	4,87	Maintained
19	X2.9	-0.042	1,73	Downgraded
20	X2.10	-0.039	1,83	Downgraded
21	X3.1	-0.105	3,93	Downgraded
22	X3.2	0.000	1,07	Maintained
23	X3.3	0.000	1,13	Maintained
24	X3.4	0.000	3,03	Maintained
25	X3.5	0.000	1,13	Maintained
26	X3.6	0.061	1,67	Maintained
27	X3.7	0.000	3,07	Maintained
28	X3.8	0.020	4,67	Maintained
29	X3.9	-0.102	4,00	Downgraded
30	X3.10	0.818	3,03	Upgraded
31	Y1.1	-0.040	3,33	Downgraded
32	Y1.2	0.000	3,83	Maintained
33	Y1.3	-0.052	1,47	Downgraded
34	Y1.4	0.857	3,50	Upgraded
35	Y1.5	0.120	1,13	Maintained
36	Y1.6	0.183	3,70	Maintained
37	Y1.7	0.000	2,10	Maintained
38	Y1.8	0.044	4,07	Maintained
39	Y1.9	0.000	3,50	Maintained
40	Y1.10	0.026	2,10	Maintained

Source : Data processed by researcher (2018)

When the loading factor gets bigger, it indicates that the indicator is stronger to reflect or become an important indicator in that variable. Of the several variables, important indicators are:

- Variable X1 with an important indicator X1.8 and loading factor of 0.589, in good conditions to be upgraded (average score of 3,97) by maintaining and encourage spirit of the teacher in applying innovative learning.
- Variable X2 with an important indicator X2.1 and loading factor of 0.307, in good conditions to be upgraded (average score of 4,87) because it is compatible with empirical conditions in the field namely important indicator required to be maintained.
- Variable X3 with an important indicator X3.7 and loading factor of 0,818, in good conditions to be maintained (average score of 3,03) by encouraging important indicator to be upgraded.
- Variable Y with an important indicator Y1.10 and loading factor of 0,857, in good conditions to be maintained (average score of 1.23) by increasing the important loading factor to supporting teacher's spirit in improving learning quality.

Table 4.7 Variable Profile of Malaysia economic teachers

No	Indicator	Loading factor	Average score	Suggestion
1	X1.1	0.033	4,33	Maintained

2	X1.2	0.000	3,70	Maintained
3	X1.3	0.000	3,23	Maintained
4	X1.4	0.000	3,23	Maintained
5	X1.5	0.289	3,50	Maintained
6	X1.6	0.355	3,40	Maintained
7	X1.7	0.308	3,37	Maintained
8	X1.8	0.493	4,33	Maintained
9	X1.9	0.000	3,83	Maintained
10	X1.10	0.000	3,73	Maintained
11	X2.1	0.119	3,10	Maintained
12	X2.2	0.676	3,07	Upgraded
13	X2.3	0.000	2,80	Maintained
14	X2.4	-0.173	3,07	Downgraded
15	X2.5	0.000	3,43	Maintained
16	X2.6	0.000	2,93	Maintained
17	X2.7	0.000	2,63	Maintained
18	X2.8	0.000	3,87	Maintained
19	X2.9	0.000	3,03	Maintained
20	X2.10	0.380	2,60	Maintained
21	X3.1	0.000	1,57	Maintained
22	X3.2	0.032	1,33	Maintained
23	X3.3	0.000	2,00	Maintained
24	X3.4	0.000	2,00	Maintained
25	X3.5	0.000	2,40	Maintained
26	X3.6	0.271	2,33	Upgraded
27	X3.7	0.705	2,47	Upgraded at once
28	X3.8	-0.383	2,07	Downgraded
29	X3.9	0.000	2,47	Maintained
30	X3.10	0.000	1,50	Maintained
31	Y1.1	-0.349	2,83	Downgraded
32	Y1.2	0.000	2,27	Maintained
33	Y1.3	0.000	1,77	Maintained
34	Y1.4	-0.073	1,23	Downgraded
35	Y1.5	0.000	1,23	Maintained
36	Y1.6	0.000	1,50	Maintained
37	Y1.7	0.000	2,07	Maintained
38	Y1.8	0.200	1,37	Maintained
39	Y1.9	0.000	1,33	Maintained
40	Y1.10	0.994	1,23	Upgraded at once

- Variable X1 with an important indicator X1.8 and loading factor of 0,493, in good conditions to be upgraded (average score of 4,33) by maintaining that condition.
- Variable X2 with an important indicator X2.1 and loading factor of 0,676, in good conditions to be upgraded (average score of 3,07) because it is compatible with empirical conditions in the field, namely important indicator more dominant.
- Variable X3 with important indicator X3.7 and loading factor of 0,705, with good conditions to be upgraded at once (average score of 2,07) by encouraging teacher enthusiasm in applying innovative learning.
- Variable Y with an important indicator Y1.10 and loading factor of 0.994, in good condition to be upgrade at once (average score of 1,23) by maintaining the load of supporting factors.

2. Hypothesis Testing Results

a. Hypothesis Test for Surabaya Economic Teachers

After analyzing the data using WarpPLS approach, the conceptual model is obtained as follows

Figure 4.1 Hypothesis Test Results

To simplify the analysis, it is explained in table form as follows:

Table 4.8 Path coefficient
Understanding of Academic Experience Development Capability Variables

Variable	Understanding	Capability	Development	Academic Experience
Understanding	-	-	-	-
Capability	-	-	-	-
Development	-	-	-	-
Academic Experience	-0,180	0,094	-0,229	

Source : Data processed by researcher (2018)

Table 4.10 P-values

Variable	Understanding	Capability	Development	Academic Experience
Understanding	-	-	-	-
Capability	-	-	-	-
Development	-	-	-	-
Academic Experience	0,145	0,296	0,086	

Source : Data processed by researcher (2018)

- 1) The Effect of Economic Teacher's Understanding on Innovative Learning (X1) to Academic Experience (Y) with path coefficients of -0,180 and $p > 0,145$. Given that p is greater than 0,1, it is said to be insignificant, so the hypothesis is rejected.
- 2) The Effect of Economic Teacher Capability in applying the Innovative Learning Model (X2) to Academic Experience (Y) with path coefficients of 0,094 and p-Value of 0,296. Given that p is greater than 0.1, it is said to be insignificant, so the hypothesis is rejected.
- 3) Sustainable self-development (X3) on Academic Experience (Y) with a path coefficient of -0,229 and p-values of 0,086. Given that p is smaller than 0.1, it is said to be significant but weak, so that the hypothesis is accepted.

b. Hypothesis Test for Malaysia Economic Teachers

After analyzing the data using the WarpPLS approach, the conceptual model is obtained as follows :

Figure 4.2 Hypothesis Test Results

To simplify the analysis, it is explained in table form as follows:

Table 4.10 Path coefficient

Variable	Understanding	Capability	Development	Academic Experience
Understanding	-	-	-	-
Capability	-	-	-	-
Development	-	-	-	-
Academic Experience	0,667	-0,009	-0,333	

Source : Data processed by researcher (2018)

Tabel 4.11 P-Values



Variable	Understanding	Capability	Development	Academic Experience
Understanding	-	-	-	-
Capability	-	-	-	-
Development	-	-	-	-
Academic Experience	<0.001	0.481	0.020	-

Source : Data processed by researcher (2018)

- 1) The Effect of Economic Teacher's Understanding of Innovative Learning (X1) on Academic Experience (Y) with path coefficients of 0,667 and $p < 0.001$. Given that p is smaller than 0,01, it is said to have a positive and highly significant effect, so that the hypothesis is accepted.
- 2) Effect of Economic Teacher Ability in applying Innovative Learner models (X2) to Academic Experience (Y) with path coefficients of -0,009 and p -value of 0,481. Given that p is greater than 0.1, it is said to be insignificant, so the hypothesis is rejected.
- 3) Sustainable self-development (X3) on Academic Experience (Y) with path coefficients of -0,333 and p -values of 0,020. Given that p is less than 0.05, it is said to have a positive and significant effect, so that the hypothesis is accepted.

Conclusions

Capability of Economic Teachers in Surabaya to carry out learning innovations is very adequate and significant in upgrading the quality of learning services in its class. Likewise, the capability of Malaysia Economic Teachers to carry out learning innovations is very adequate and significant in upgrading the quality of learning services in its class. Economic teachers both Surabaya and Malaysia have a passion for developing innovative learning that is very strong and continuous, so that economic teachers have professional skills in applying innovative learning models. The capability of Surabaya Economic Teachers to implement learning innovations is very adequate and significant in upgrading the quality of learning services in its class. This is due to the encouragement of the Surabaya City Education Office to teachers to develop innovative learning is very strong and sustainable, so the teachers are very enthusiastic in implementing innovative learning models. Limitation of this research is only for innovative learning application in their classroom. So, suggestions for future studies can be develop potential of teacher with comprehensive for increasing qualities of their learning activities.

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