

Meta Analysis; The Influence of Teaching Economy Innovation to the Escalation of The teaching Quality

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ABSTRACT

The objective of this research is to find the influence of teaching economy innovation to the escalation teaching quality. This research accumulates and integrates a study use Meta analysis technique for economy teaching innovation on national journals. The research method is descriptive. The research finds that the most influence teaching method in teaching economy is contextual teaching and learning which scored 2.42 with very high category. This shows that the CTL (Contextual Teaching and Learning) is the most effective model among the others teaching innovation. In other side, the lowest teaching innovation is deep dialogue/critical thinking which is scored 0.3 with low category.

Key Words: Meta-Analysis, Innovative teaching methods, economy studying quality.

INTRODUCTION

The escalation of teaching quality can be traced through the raising of studying result. The development of teaching in other way supports to solve the problem in education matter especially the process of teaching in the classroom or the laboratory. One of the teaching innovation suggested by the education experts in the students centered learning approach. This approach gives the chance for the students to constructs their knowledge independently (self directed) with the peer mediation (peer mediated instruction) and facilitated by the teacher (Hasyim, 2011;Lyna& Susilowati, 2011). The escalation of the economy teaching innovation is also influenced by the teaching innovation applied by the teacher in the scope of constructivism paradigm. With the paradigm, the teacher would help the students in internalizing and transforming new knowledge and ideas (Hanitzsch, 2001).

In the constructivistic class, students are directed to be independent and responsible to the their own learning process and they are hoped to develop the integrated conceper while finding the answer of the problem independently(Glasersfeld, 1995;Savery & Duffy, 1996)

The value of the constructivistic contains of collaborations, individual autonomy, generativist, reflectivity, activity, self – relevancy and pluralism. Applying the values, the students are given chances to achieve the understanding toward a material deeply (Lyna & Susilowati, 2011).

The steps of constructivistic push the students to learn about the knowledge actively. The characters of it are the followings: 1) the students have opportunity to develop the idea broadly based on the studying objective, 2) the chance of studying independently is available for students, 3) The teacher always prepare proportional time for students sharing section, 4) the learning process is students' centered which focuses on the divergent students' thinking ability.(Priartini et al., 2017; Widodo, 2005)In a constructivistic studying, the role of the teacher is mediator,who guides the students in studying, constructs the visual of a problem and helps the students to develop positive attitude toward learning so that the students have higher level of critical thinking. Moreover, the teacher's role is to create students' knowledge and skill that's why the teacher must understand the various innovative teaching models(Harding, Hari, 2017).

The teaching model which initiates a teaching innovation is a procedure of teaching directed to the escalation of studying quality proven by the escalation of the students' score.

Teaching model is a conceptual framework which is used as guidelines in teaching and describes a systematic procedure of how to organize learning experience in achieving the determined objective. The aspects of the model of learning are: 1) the teaching operational steps, 2) the learning atmosphere (classroom social system), 3) the teachers' reaction to the students' responses, 4) The supportive system like materials, equipments, and learning atmosphere, 5) instructional effect and nutrient effects. (Hudha, Amin, Bambang, & Akbar, 2017).

There are two methods could be developed in arranging a research resume. They are Meta analysis and Meta ethnography. Meta analysis is a research method which resumes quantitative research and investigates the result of the research using statistic. In other side, the ethnography method is research method which resumes qualitative research result. Meta analysis is considered more objective because this method focuses on the available data so the result is more objective, accurate, and credible (Prasetyo, Yusmin, & Hartoyo, 2014). Meta analysis research method is a method from the result of the researchers by considering effect size (ES). This method also aimed to answer the questions about the problem between experimental group and control group and arranged based on the research results which increase year by year. (Ellis, 2010; Williams, Rast, & Bürkner, 2018; Utama & Festiyed, 2020)

The basic objective of the Meta analysis methods is to provide similar methodology toward literature review needed from an experimental research (Decoster & Hall, 2004).

Researches about economy teaching innovations in increasing study quality has been done many times. (Forijati, 2019; Harding, Hari, 2017; Supriadi, 2017; Arniati, 2011) There are few types of innovative used in those researches, that's why Meta analysis is needed to gain an understanding and general conclusion form sort of the researches. Using Meta analysis, we could conclude how the teaching economy innovations could increase the teaching quality.

METHOD

The procedure of this research is adjusted with the following meta analysis steps purposed by Glass: 1) determine the domain based on independent variable (teaching economy innovations) and dependent variable (learning quality in the form of studying result), 2) determine the criteria of journal about teaching economy innovations using contextual learning and learning, active debate learning, deep dialogue/critical thinking, make a match, reciprocal learning, problem based learning, 3) extract the researches under the scope of teaching innovations, 4) calculate the effect size by calculating the mean and deviation standard with their variant coefficient, 5) analyze the effect size, 6) analyze the correlation of each variables.

The result of this research then analyzed using the effect size formula. This is done by taking the data of effect size from each analyzed journal, and then the subjection means are taken to find the lowest score, medium, and highest score. The data is analyzed used the following formula:

$$ES = \Delta = \frac{\bar{X}_e - \bar{X}_c}{S_c}$$

Notes:

- ES : Effect Size
- X_e : Mean score of experiment classes
- X_c : Mean score of comparative group
- S_c : Standard Deviation of comparative group

With the measurement effect as follows:

- a. effect size $\leq 0,15$ ignorable effect
- b. $0,15 < \text{effect size} \leq 0,40$ low effect
- c. $0,40 < \text{effect size} \leq 0,75$ medium effect
- d. $0,75 < \text{effect size} \leq 1.10$ high effect
- e. $1,10 < \text{effect size} \leq 1,45$ very high effect
- f. $1,45 < \text{effect size}$ of high influence

RESULTAND DISCUSSION

In discussing the influence of innovative teaching to the economy learning result, some journal about the innovative teaching will be discussed and analyzed. The journal analyzed are the journals about problem solving teaching methods, active debate learning, deep dialog/critical thinking, contextual teaching and learning (CTL), make and match and reciprocal learning. The journals will be investigated based on its content outline.

The followings are the result of calculations of effect size based on the investigations of 20 journals:

Table 1

The Table of Effect Size Innovative Teaching Calculation

No	Journal Codes	Innovative Teaching Models	Calculated Factor	ES	Categories
1	Ad, Ef, Gh, Ft, Nd	Problem Solving	Critical Thinking	1,09	High
			Motivation	1,02	High
			Studying Result	0,73	Medium
2	Bb, Cd	Active Debate	Studying Result	0,71	Medium
3	Gf, Hg, Ij, Kl	Deep Dialog/Critical Thinking	Critical Thinking	0,11	Low
			Studying Result	0,30	Low
4	Mm, Nn, Op	CTL	Studying Result	2,42	Very High
5	Pd, Qr, Dr	Make and Match	Studying Result	0,48	Medium
6	Rr, Sr, Tr	Reciprocal Learning	Studying Result	0,55	Medium

As the table above, the research finds that the highest score from the six innovative teaching models is CTL (*Contextual Teaching and Learning*) with 2.42 in score and the category is high. It indicates that CTL (*Contextual Teaching and Learning*) is the most effective models among the six innovative teaching model.

The contextual model or well known with *Contextual Teaching and Learning (CTL)* is a teaching approach which emphasize the context of materials and teaching activity concern to like social condition, culture, geographic, and background knowledge of the students and students characteristic (Siti Suprihatin, Sutarno, 2013; Nafiaty, & Purwitasari, 2009) Applying contextual teaching and learning, the concept from economy teaching materials can be integrated in real life and hoped that the students could understand the materials easily, This model is applied to give new knowledge for the students in a flexible ways which the concept can be transferred from a problem to other problem. Transfer of knowledge can happen if the teacher gives task about the problem in real life and link it with the learning materials. Transfer in this case is about to adopt the concept and context into particular situation. (Berns & Erickson, 2001) Some characteristic of contextual teaching models are: 1) Teh students are active in the learning process, 2) Students study in group, discussion or reciprocal correcting, 3) The process of learning is linked to the real life or simulated problem, 4) Behave is formed based on the self-awareness, 5) Skill is developed based on the understanding, 6) The reward of good behave is self-satisfaction, 7)

Students use the ability to think critically, get involved in the learning process while give high effort in to make the learning process effective and bring their own schemata into learning process.

The lowest effect size is the deep dialogue/critical with the 0.11 score and the studying result is 0.30. This is categorized low. Based on (Arthana, 2010;Aini, 2018;Aniek & Alrian, 2020;Lyna & Susilowati, 2011)the teaching model which based on *deep dialog/critical thinking* is a constructive teaching learning process emphasizing to the deep dialogue and critical thinking in gaining knowledge or experience. The weaknesses of this model are: The early stage of this method demands the teacher to have planned preparation so that this model can be applied. This model also requires the students to have enough background knowledge about the concept and materials delivered by the teacher.

As a result, apathetic students and the students who are not familiar with how to speak in the forum will spend much time to get them use to with the method. This is not proper to apply in new teaching materials. For the effect sizes, the critical thinking and problem solving gets the highest score. That is 1.09. It is categorized high. Critical thinking is a clear process in solving the problem use analysis and scientific research path. Critical thinking is also the ability to evaluate systematically others' opinion or private opinion about something. (Sumarsih, 2009;Aniek & Alrian, 2020)

CONCLUSION

Based on the Meta-analysis done by the researchers, it could be conclude that the best innovative learning with significant influence is innovative CTL teaching model with 2.42 in score. It score is categorized very high. This shows that CTL (*Contextual Teaching and Learning*) is the most effective among the six innovative teaching methods. The lowest effect size is deep dialogue/Critical Thinking with 0.11 in score with the studying result is 0.30. This is categorized low.

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