

## Influence of Web Based Cooperative Learning Strategy and Achiever Motivation on Student Study Outcome

Bambang Hariadi, Tutut Wuriyanto

Institute of Business and Informatics Stikom Surabaya, Indonesia

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### ABSTRACT

The research aimed at examining the effect of instructional strategy (web-based STAD and text-based STAD) and achiever motivation toward student learning outcomes. The research implied quasi-experimental design with nonequivalent control group factorial version. The subjects were undergraduated students of Information Systems of academic year 2014/2015 at STIKOM Surabaya. Two groups were involved in the investigation with which amounts to 67 students, comprised of 34 students for the experimental class and 33 students for grade control. The collected data were statistically processed using analysis of variance techniques (ANOVA) two paths using a significance level of 0,05. The results of this research indicate that there is a difference in outcome study of Organization Behavior courses is significant between groups of students who studied with a web-based STAD type cooperative instructional strategies and textual STAD type cooperative strategies. Based on the findings of this research, researchers suggest implementing STAD tipe cooperative of instructional strategy, with simultaneously (complementary) between the web-based and text-based in the form of blended learning.

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### Corresponding Author:

Bambang Hariadi,  
Institute of Business and Informatics Stikom Surabaya,  
Raya Kedung Baruk 98, Surabaya, Indonesia.  
Email: bambang@stikom.edu

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## 1. INTRODUCTION

Education process tends to disregard more of educating elements, and it is as if education is being replaced by training and brainpower-improving activities [1]. Further, Setyosari [1] propose that learning atmosphere signifies the competition existing between students and it neglects more of functional and contextual learning principles. Learning process which is merely knowledge transfer does not provide the opportunities for the students to interact and to have transaction between one another, causing the students are losing their time to articulate learning experiences. Learning processes are supposed to take notice of instillation of soft skill elements, such as: cooperation, mutual respects for opinions of others, responsible, honesty, willingness to sacrifice, etc. Learning focuses on soft skill aspects is identified as cooperative learning [1].

Student interaction process is learning process in order to attempt to have comprehension of new information [2],[3]. Learning processes that have the purpose of having comprehension of new information is social principle of learning, in which students within learning groups of members with diverse abilities can do learning activities to understand new information [4].

Learning is a process where individual students are intentionally managed to participate in certain behaviours under specific circumstances or to provide responses in certain conditions [5]. Learning is meant to make students learn [6]. This comprehension of what learning is carries a deeper meaning that learning consists of these activities: selecting, establishing and developing methods or strategies, in order to achieve

expected learning outcomes. Strategy of learning is one of important factors that determine the success of learning and teaching processes [7]. Learning cannot go on immediately, but initiated by planning. Planning of learning is done to get precise learning strategy for the purpose of obtaining optimal learning result based on expected objectives to be achieved.

Effective learning focuses on the importance of learning as personal process and it demands learning strategies which can accommodate various contexts, sets of topics to be taught by teachers, learners with diverse backgrounds, needs and problems [8]. Furthermore, Fosnot [8] asserts that constructivist viewpoint recommends an approach that provides opportunities for the students to find concrete and meaningful experiences, to figure out their own problems, as well as to construct techniques, comprehension and strategies on their own.

Learning construction becomes a starting point in the process of attempting to improve learning quality, leading to the conclusion that quality learning construction has to be repaired [9]. Essence of learning design is to establish optimal learning methods in order to accomplish expected learning result. The main emphasis in learning design is selection, formation and development of learning method variables.

STAD, one of cooperative learning strategy type, directs class activities to be focussed on students and to take benefits from interaction tendency, as well as gives positive impact for the students with minimum experiences [10]. Competitive learning strategy should emphasize that competitions can cause unfavourable learning conditions and less developed cooperation skill that is required in real life [11].

Setyosari [8] Summarizes findings of research, conducted by Johnson & Johnson on 26 classes in 1981, that cooperative learning experiences improves learning achievements better than individual and competitive learning experiences. Furthermore, Setyosari [8] states that corresponding to result of the research and experimental research proof, it is recommended to schools with intentions to provide optimal intellectual development for their students, that students need to be fully involved in various cooperative activities.

In STAD type of cooperative learning strategy, lecturers become facilitator for the purpose of making learning process to involve more group activities, which these groups consists of between three and five students. The formed groups consist of heterogeneous genders, performance levels, tribes/races, and other student characteristics [10]. Given the heterogeneity of these groups, every group member can help each other (*cooperative*) in order to achieve learning objectives. In STAD typed cooperative, assignments given to the students are not only to do some ordered tasks as a team, but also to learn something as a team [12]. Thus, every student, as team member, can learn how to put themselves in the right attitude and to apply values of cooperative attitude in an organization or team in accomplishing objectives.

In the research by Noornia [13], it is stated that positive cooperative typed of Students Teams Achievement Desvision (STAD): (1) brings positive influences to student learning activities, (2) advances comprehension of students, (3) gives special knowledge for the students who are in groups of students with average intelligent and groups of students within lower intelligent levels, (4) encourage each team member to have concerns of other members, which does not happen in conventional learning. In regards to research by Noornia, Machmuda [14] presents findings, demonstrating that, STAD typed cooperative learning effectively improves student abilities in learning Arabic, especially reading skill (*maharohqiroáh*). Finding of research, conducted by Zainuddin [15], shows that STAD type of cooperative learning, with focus on students' cognitive styles: *field independent* (FI) and *field dependent* (FD), when applied to mathematical function learning, improves students' learning achievements significantly. Next, Mulyadi [16] also figures out that learning strategy that utilizes VCD for learning physics through cooperative model can improve students' performance and achievements.

The present of Information Technology has led to learning that utilizes computers (as known as e-learning) in the form of *web based teaching environment*, such as: *computer based learning* (CBL), *web based learning* (WBI), and *web based teaching* (WBT). Cotton [8] has done a study of 59 research related to learning with the assistance of computers. Result of the study shows a pleasing phenomenon and that computer technology is proved to be effective. This is also supported by research of Henich et al. in [8], asserting that computer technology demonstrates improvement in learning result as much as 15.20 points or more. Based on those research, some points related to computer technology can be summarized as: (1) computer technology can improve students' performance corresponding to knowledge, skills and attitudes; (2) students prefer using computer to using television for learning; (3) students prefer interactive participating role to passive participating role; (4) effective software applications incorporate students intensively and students can control these applications freely; and (5) incorporating computer technology in learning can enhance students' positive attitude about school, lessons, and learning in general [8].

Innovative learning process is indicated by activities of the teachers which are not only giving knowledge for the students, but also providing the opportunities for the students to build the knowledge by using their own techniques, as representation of their assignments and responsibilities [17],[18]. Furthermore,

Slavin [10] adds that teachers can encourage the knowledge construction process by conducting learning process that can make information becomes very meaningful and relevant for students, by giving the students opportunities to discover and apply their own ideas, and by inviting the students to become aware of and intensified awareness of their own learning strategy.

Cheong dan Cheong [19] conducted a research on critical thinking of high school students in the lower level within *online asynchronous* discussion environment. In the research, Cheong dan Cheong [19] finds out that students' perceptions of online discussion indicate positive attitude and existence of critical thinking skill during the online discussion. Milne et al. [20] conduct a research on application of e-learning instruments in supporting assignment evaluation. From the research, it is acknowledged that there is an excellent benefit for students' learning processes, while workload of the staff is being reduced since the use of e-learning tools for assignment review. Furthermore, this benefit is only utilized by small amount of academics. Also, application of e-learning tools is very potential for expansion, as well as for related approaches. Based on findings of Cheong dan Cheong [19], and Milne et.al. [20], it is discovered that the use of web technology for learning has advantages in improving the study outcome.

Beside method variable within in which there is learning presentation strategy, success of learning is also determined by conditional variable, including learning style which is part of student characteristics [21]. Next, Degeng [9] presents that role of learning presentation strategy for improving motivation to learn is more real than learning organization strategy. In short, it can be said that learning process also depends on how a learning topic is presented and its suitability for learning styles of students.

Degeng [22] explains student characteristics that include: cognitive style, achiever motivation, learning style, *locus of control*, multiple intelligence, and emotional intelligence. McClelland in Soekamto dan Syarifudin [23]; Cohen [24] states that individual has motivation to learn because they have need of achievement. According to this theory, motivation has three variables, including: (1) expectation to do the assignments successfully, (2) achievement about the mark of those assignments, and (3) need of success. This theory of McClelland is then developed by Atkinson [25], which explains that success can only be achieved by applying these two techniques: by achieving the level of good result and by avoiding failures. Stimulus for achiever motivation, in study at school, is known as *need of achievement* (kebutuhanberprestasi), which is next to be called "N-Ach".

Individual with high N-Ach expects to finish the assignments well and will always try to improve the study outcome optimally. On the other hand, individual with low N-Ach rendah only picks very low assignments. Students who have high achiever motivation will always attempt to do the assignments in learning process optimally because they want to aim for the hope for success, for getting better study outcome, and for avoiding failures. This condition shows that there is significant relation between learning strategy and achiever motivation in regards to study outcome. It corresponds the research of Latifah [26]; Panjaitan [27], asserting that there is significant interaction between learning methods and achiever motivation on study achievement.

McCarthy [28] explains blended learning, equipped with face-to-face discussion, is beneficial for enhancing comprehension of the topic being taught as well as improving involvement of each individual in groups. In addition, McCarthy [28] asserts that blended learning is an excellent technique for studying about other students during the learning process. Serin and Cyprus [29] conduct a research on impact of computer based learning on problem solving skill and study achievement. From the study, Serin and Cyprus [29] discovers significant improvement of achievement and problem solving skill.

Chantananurungpak and Rattanapian [30] have developed web based learning using *blended* model with cooperative learning strategy. In this development, Chantananurungpak and Rattanapian [30] suggest nine elements that need to be focused on: (a) learning objective, (b) learning activity, (c) learning type, (d) interactive method, (e) roles of students, (f) roles of teachers, (g) computer network technology, (h) support of source from the web, (i) learning evaluation. In the conclusion, the research highlights some important points: (a) improvement in learning result is accomplished significantly (higher than 0.5 level), by comparing pre test and post test after applying web based blended learning by using cooperative model for this mathematical calculation, (b) students express their satisfaction of web based cooperative learning model which has been developed for mathematics. These findings show that web based cooperative learning model can improve learning result as well as can be pleasing learning strategy alternative for learners.

This research has the objective of evaluating: (1) differences of learning result in cognitive aspect between students being taught using web-based STAD typed of cooperative strategy and students being taught using text-based STAD typed of cooperative strategy, (2) differences of learning result in affective aspect between students being taught using web-based STAD typed of cooperative strategy and students being taught using text-based STAD typed of cooperative strategy, (3) influences of interaction between learning strategy and achievement motivation on students' learning results in both cognitive and affective aspects.

## 2. RESEARCH METHOD

This research uses *factorialized (2 x 3) version of the nonequivalent control group design*. Factorial design divides groups based on number of treatment types and number of groups that will be observed. Design of this research can be described in a diagram as in Figure 1.

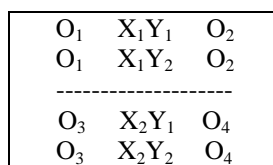


Figure 1. Research Design Using *Factorialized (2 x 3) Version of the Nonequivalent Control Group Design* Adapted from Tuckman [31]

### Description:

O<sub>1</sub> and O<sub>3</sub>: early observation (pre test)

O<sub>2</sub> and O<sub>4</sub>: final observation (post test)

X<sub>1</sub>: treatment (experiment group) in the form of web based STAD typed of cooperative learning strategy.

X<sub>2</sub>: treatment (control group) in the form of textuall STAD typed of coopertative learning strategy.

Y<sub>1</sub>: high achiever motivation.

Y<sub>2</sub>: low achiever motivation.

-----: subject/group is not defined randomly (*intact group*)

Subjects of this research are students of Information Systems program for academic year 2014/2015in STIKOM Surabaya. The numbers of those subjects are 67 students, consisting of 34 students attending experiment class and 33 students attending control class. Collected data is analyzed by using design of research data analysis as can be described in Table 1.

Table 1. Design of Research Data Analysis

Moderator Variable	Independet Variable	Cooperative Learning Strategy Type STAD	
		Web Based	Text Based
Achivement	Hight	18	16
Motivation	Low	16	17

There are three variables used in this research, including: independent variable, moderator variable and dependent variable. Independent variable in this research is learning strategy that includes web-based and textual STAD type of cooperative learning strategy. Moderator variable in the research is achiever motivation that can be categorized into high achiever motivation and low achiever motivation. Meanwhile, dependent variable is learning result, grouped into: (1) cognitive ability that measure students' mastery of learning topics, done by using test for measuring comprehension level (C<sub>1</sub>, C<sub>2</sub>, C<sub>4</sub>, C<sub>5</sub>), and (2) affective ability (A<sub>1</sub>-A<sub>3</sub>) for measuring values of students' attitude, conducted through observation.

Data collection is conducted by following these steps: (1) hold *pre-test*, (2) give motivation test, (3) conduct learning treatment (experiment), (4) do observation, (5) hold *post-test*. The research is conducted in each class for seven sessions, starting from April to May 2015. The sessions consist of: one session for pre-test and test for achiever motivation, five sessions for learning and observation, and one session for post-test.

Instruments used in this research include: (1) learning result test, and (2) test for achiever motivation. Researchers construct those instruments through two stages: development stage and trial stage. Instrument trials is conducted in order to acknowledge validity and reliability of instruments developed by researchers, because valid and reliable instruments are expected to be able to collect valid and reliable data (Surachmad [32]; Arikunto [33]).

Techniques for analyzing data in this research are descriptive and inferential. In this research, hypothesis testing is conducted through two stages, including: assumption testing and hypothesis testing. Descriptive analysis is done in order to test the assumption for analysis: normality test for data distribution and variant homogeneity test. Normality test is done by using Kolmogorov-Smirnov test with the support of *version 1.6* of SPSS software for Windows. Data homogeneity test is done by using Lavene's test which is

one of components in ANOVA software package. Decision to state the normality of distribution and homogeneity of varians is based on error rate of 5% and confidence interval of 95%. For hypothesis testing in this research, inferential statistics using ANOVA factorial pattern is applied with the support of *version 1.6* of SPSS software *for Windows*. This ANOVA is also used for observing interaction between those two factors (learning strategy and achiever motivation) on learning result. Decision used for stating existence of independent variable influence on dependent variable is based on error rate of 5% and confidence interval of 95%.

### 3. RESULTS

#### 3.1. Data Description

##### 3.1.1. Description of Achiever Motivation Test Result Data

Data collected from result calculation of achiever motivation test, given to students in two classes (one class for experiment group and one class for control group), with the composition of 69 students grouped based onachiever motivation classifications. The collected data can be described as: (1) 34 students, who have high achiever motivation, accomplish highest score of 86 and lowest score of 60, range 26, variant 46.08, standard deviation of 6.788, mean of 75.58, and median of 74.74; (2) 33 students with low achiever motivation accomplish highest score of 86, lowest score of 64, range 22, variant of 49,265, standard deviation of 7.019, mean of 73.91, and median of 72.1.

##### 3.1.2. Description of Pretest Result Data

Data, gained from pre-test result of group of students that get treated with web-based STAD type of cooperative learning strategy and group of students that get treated with textual form of the same type of strategy, is analyzed by using t-test with two independent samples. The calculation result of this pre-test data is presented in Table 2. Based on calculation of pre-test result which is done by using t-test, the result demonstrates that  $t = 0.099 < t_{table} = 1.68$ , given statistical significance at 0.05 and defree of freedom at 67, leading to the conclusion that null hypothesis ( $H_0$ ) is accepted. To summarize, there is no significant difference on pre-test result between the two groups.

Table 2. Calculation Summary of Pre-Test Data from Study of Organizational Behaviours Course

Explanation	Type STAD Cooperative	
	Web Based	Text Based
N	34	33
Total score	2124	1380
Mean	40.65	39.43
Varians	44.296	57.311

##### 3.1.3. Description of Post-Test data of Study Outcome of General Management Course in Cognitive Aspect

Summary of data, describing the study outcome test for cognitive aspect of Organizational Behaviors course is collected from descriptive statistics calculation for groups that applies web-based and textual STAD type of cooperative learning. This summary is detailed in Table 3.

Table 3. Data Summary of Study Outcome of Organizational Behaviors Course in Cognitive Aspect

Descripteve Statistic				
Dependent Variable: Learning Outcomes Cognitive Aspects				
Cooperative Learning Strategy	Achievement Motivation	Mean	Std. Deviation	N
Web Based	Low	78.67	8.794	12
	Hight	83.27	8.730	11
	Total	78.12	9.534	34
Text Based	Low	66.17	9.666	12
	Hight	74.17	9.476	12
	Total	71.37	9.723	35
Total	Low	72.42	11.065	24
	Hight	78.52	10.058	23
	Total	74.70	10.145	69

### 3.1.4. Description of Post-Test data of Study Outcome of General Management Course in Affective Aspect

Post-test data is collected from observation during the role-play activity in affective aspect of Organizational Behaviours course after treatment. Improvement of students' study outcome in affective aspect of Organizational Behaviors course can be known from average score. Summary of data describing observation on affective aspect of Organizational Behaviors study outcome is acquired through descriptive statistics calculation. The data represents study outcome of students who get treatment by applying web-based and textual STAD type of cooperative learning strategy. This data is presented in Table 4.

Table 4. Data Summary of Study Outcome of Organizational Behaviors Course in Affective Aspect

Descriptive Statistic				
Dependent Variable: Learning Outcomes Cognitive Aspects				
Cooperative Learning Strategy	Achievement Motivation	Mean	Std. Deviation	N
Web Based	Low	70.17	5.424	12
	High	70.18	6.161	11
	Total	69.24	5.721	34
Text Based	Low	79.00	4.936	12
	High	77.33	6.110	12
	Total	78.34	5.099	35
Total	Low	74.58	6.788	24
	High	73.91	7.019	23
	Total	73.86	7.065	69

## 3.2. Research Hypothesis Testing

### 3.2.1. Hypothesis Testing of Cognitive Aspect of Study Outcome

Hypothesis testing is done by analyzing data of Organizational Behaviors study outcome in cognitive aspect. Calculation is done by using two-path analysis of variants (ANOVA) technique at statistical significance of 0.05 with the support help *SPSS release 16*. The calculation result is presented in Table 5.

Table 5. Calculation Summary of Two-Paths Analysis of Variance Technique at statistical significance of ( $\alpha$ ) 0,05 (Cognitive Aspect)

Tests of Between-Subjects Effects					
Dependent Variable: Learning Outcomes					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Correct Model	1939.881	5	387.976	4.832	.001
Intercept	385.047.036	1	385.047.036	4.80E+06	.000
Learning Strategy	762.900	1	762.900	9.501	.003
Achievement Motivation	546.523	2	273.262	3.403	.039
Learning Strategy*	616.845	2	308.423	3.841	.027
Achievement Motivation Error	5.058.727	63	80.297		
Total	391.980.000	69			
Corrected Total	6.998.609	68			

### 3.2.2. Hypothesis Testing of Affective Aspect of Study Outcome

Hypothesis testing is done by analyzing data of Organizational Behaviors study outcome in affective aspect. Calculation is done by using two-path analysis of variants (ANOVA) technique at statistical significance of 0.05 with the support help *SPSS release 16*. The calculation result is presented in Table 6.

Calculation of hypothesis testing result can be summarized as follow.

1. There is significant different learning result of Organizational Behaviors subject in cognitive aspect between students learning under web-based STAD type of cooperative learning strategy treatment and students learning under textual STAD type of cooperative learning.
2. There is significant different learning result of Organizational Behaviors subject in cognitive aspect between students with high achiever motivation and student with low achiever motivation.
3. There is influence of interaction between learning strategy (web-based STAD type of cooperative and textual STAD type of cooperative) and students' achiever motivation on learning result of Organizational Behaviors subject in cognitive aspect.

4. There is significant different of learning result of Organization Behaviors subject on affective aspect between students learning by using web-based STAD type of cooperative learning strategy and the ones learning by using textual form of the same type of strategy.
5. There is no significant different learning result of Organizational Behaviors subject in affective aspect between students with high achiever motivation and students with low achiever motivation.
6. There is no interaction between learning strategy (web-based STAD type of cooperative and textual STAD type of cooperative) and students' achiever motivation on affective aspect of Organizational Behaviors subject.

Table 6. Calculation Summary of Two-Paths Analysis of Variance Technique at statistical significance of ( $\alpha$ ) 0,05 (Affective Aspect)

Tests of Between-Subjects Effects			
Dependent Variable: Learning Outcomes			
Source	Type III Sum of Squares	df	Mean Square
Correct Model	1512.217 <sup>a</sup>	5	302.443
Intercept	374.893.759	1	374.893.759
Learning Strategy	1.440.369	1	1.440.369
Archievement Motivation	28.847	2	14.424
Learning Strategy*	52.706	2	26.353
Archievement Motivation	1.882.333	63	29.878
Error			
Total	379.760.000	69	
Corrected Total	3.394.551	68	

a. R Squared = .445 (Adjusted R Squared = .401)

## 4. DISCUSSION

### 4.1. Influence of Learning Strategy on Cognitive Aspect of Study Outcome

Result of hypothesis testing shows that there is significant different Organizational Behaviors study outcome between students studying by using web-based STAD type of cooperative learning strategy and the ones studying by using textual form of the same type cooperative learning. Calculation of study outcome test data indicates that application of web-based STAD type of cooperative learning strategy accomplishes average score is 78.12. Whereas textual STAD type of cooperative learning strategy accomplishes average score of 71.37.

This means that application of web-based STAD type of cooperative learning is proved to have better influence on study outcome of Organizational Behaviors course, compared to the one applying textual STAD type of cooperative learning. This finding corresponds to the previous researches that compare conventional learning (face to face) to learning with the support of computer or *web* technology (*blended learning*). Those previous researches include finding of: Chantarangpak and Rattanapian [30], Kausar et.al. [34], Buzzeto-More [35], Hariadi [36], McCarthy [28], Ghauth and Abdullah [37], Serin and Cyprus [29], danLan and Lin [38]. Study outcome gained from learning by using multimedia or *e-learning* achieve better result than the conventional learning without media.

There are several factors, suspected to be the causes of study outcome under web-based STAD type treatment is more supreme, compared to the textual one. First, web-based STAD type of cooperative learning strategy is one of learning strategy that is based on constructive viewpoint. According to constructive theory, learning is an attempt to give meaning by students on their experiences through assimilation and accommodation that are directed to build cognitive structure [6]. Second, web-based STAD type of cooperative learning can grow achiever motivation and can improve active participations of the students in learning process. Third, it is based on theoretical and empirical foundation that web-based STAD type of cooperative learning (average 78.12) is more supreme than textual STAD type of cooperative learning (average 71.37).

### 4.2. Influence of Achiever Motivation on Cognitive Aspect of Study Outcome

Group of students, with high achiever motivation, gain better study outcome than group of students with lower achiever motivation. Showed by calculation result of study outcome test, it can be clearly seen that group of students with high achiever motivation get average score of 78.52, whereas group of students with low achiever motivation get average score of 73.18. That result indicates that achiever motivation factor is proved to have significant influence on study outcome of Organizational Behaviors in cognitive aspect. This supports finding of previous researches by Degeng [6], Rola [39], and Ngurawan [40]. These researches

state that in learning activity, achiever motivation should be focused on by teachers, as an attempt to accomplish optimal study outcome.

#### **4.3. Influence of Interaction between learning Strategy and Achiever Motivation on Cognitive Aspect of Organizational Behaviors Course Study Outcome**

On hypothesis testing, it can be concluded that there is influence of interaction between learning strategy and achiever motivation on study outcome of Organizational Behaviors course. This shows that accomplishment of students' study outcome is not only caused by application of learning strategy, but also their achiever motivation. Achiever motivation of students influences application of learning strategy in order to accomplish learning objectives (study outcome).

This research result supports several opinions of experts, such as: Reigeluth and Stein [41], Slavin [42], Moore [43], Lyle and Robinson [44], and Degeng [45]. Those researches assert that study outcome is mainly determined by applied learning strategy and characteristics of the students. Additionally, Reigeluth and Stein [41] present that study outcome is all effect which can be value indicator of application of learning strategy under different circumstances. In accord to that opinion, Lyle and Robinson [44] explains that learning condition influences effectiveness and efficiency of learning strategy application. This means that effectiveness and efficiency of learning strategy application is influenced by characteristics of students.

#### **4.4. Influence of Learning Strategy on Learning Result of Organizational Behaviors Subject in Affective Aspect**

Outcome of hypothesis testing shows that application of textual STAD type of cooperative learning strategy is proved to have better influence on learning result of Organizational Behaviors subject in affective aspect, compared to the web-based form of the same strategy. This finding corresponds to the previous research, such as: research result of Noornia [13], Zainuddin [15], Machmuda [14], and Mulyadi [16]. These researches suggest that cooperative learning strategy can provide significant result for improvement of learning achievement.

There are several factors, predicted to be the cause of learning result gained on textual STAD type of cooperative learning strategy is supreme, compared to the web-based one. First, in textual STAD type of cooperative learning strategy, discussion process among the students occurs physically, so that expression of psychological aspect can be noticed on and can be transformed into real behaviors. Second, textual STAD type of cooperative learning is able to promote motivation to learn and to improve active participation of the students during learning process. Finally, theoretical and empirical foundation suggest that textual form STAD type of cooperative learning strategy (average value of 78.34) excels, better than the web-based form of the same type (average value of 69.24).

#### **4.5. Influence of Achiever Motivation on Affective Aspect of Learning Result of Organizational Behaviors Subject**

Hypothesis testing concludes that there is not significantly different learning result of Organizational Behaviors subject in affective aspect between students who have high achiever motivation and students who have low achiever motivation. That result indicates that factor of achiever motivation cannot be proved to have significant influence on learning result of Organizational Behaviors subject in affective aspect. Factor that is predicted to be the cause of different learning result of Organizational Behaviors subject in affective aspect is reasonably strong influence of learning strategy which promotes achiever motivation of both groups.

#### **4.6. Influence of Interaction between Learning Strategy and Achiever Motivation on Affective Aspect of Learning Result**

Hypothesis testing shows that there is no interaction influence between learning strategy and achiever motivation on affective aspect of Organizational Behaviors. Influence of learning strategy on learning result, which has been exposed on the research result, illustrates that learning strategy strongly influences affective aspect of students' learning result. Theoretical study, as it has been presented by Slavin [10], Slavin [42], Nur [12], Basuki [46], Arends, [7] and Lie [47], suggests that cooperative learning strategy open opportunities for students to get involved actively in learning.

Finding of this research demonstrates that learning strategy has strong influence on affective aspect of learning result, whereas achiever motivation does not influence learning result. Given the fact, it can be concluded that there is no interaction between learning strategy and achiever motivation on affective aspect of learning result in the class of Organizational Behaviors subject. This research finding is supported by Mundir [48], Halis [49] and Nurlaela [50] who state that there is no different learning result caused by interaction between application of learning instruments and achiever motivation



## 5. CONCLUSION

Based on the result and discussion in the previous explanations, it can be summarized in the following: (1) there are significant differences learning results on Organizational Behaviors subject between group of students being taught by applying web-based STAD type of cooperative strategy and the ones taught by using textual STAD type of cooperative strategy; (2) in cognitive aspect, the learning results of Organizational Behaviors subject from group of students with high achievement motivations and the ones with low achievement motivations are significantly different, while in the affective aspect the results are not significantly different.; (3) learning strategy and achievement motivation demonstrate that there is interaction influences on learning result of Organizational Behaviors subject in cognitive aspect, but do not show the same influences on affective aspect.

This research result indicates that application of learning strategy and instruments that suit the learning objectives can improve learning result, but lecturers are still required to be present and give confirmation of learning result. For the reason, application of learning instrument, especially the one using web-based, cannot fully replace the lecturers in learning because they are still required to be present. Optimal learning result can be achieved by using internet as learning instrument, collaborating with conventional learning together to encourage the perfection of learning in the forms of *blended learning* or *hybrid learning*.

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## BIOGRAPHIES OF AUTHORS



Bambang Hariadi is a Vice Rector in Student Affairs. His undergraduate degree in educational administration, postgraduate and PhD, are consistently pursued in educational technology. He is also a researcher and lecturer in Departemen of Computer Multimedia, Institute of Business and Informatics Stikom Surabaya, Indonesia.



Tutut Wuriyanto is a Head of research and Community services . His undergraduate degree and Postgraduate in Tecnical Information. He is also a researcher and lecturer in Departemen of Information System, Institute of Business and Informatics Stikom Surabaya, Indonesia.