

# GROWING HONESTY, RESPONSIBILITY AND CREATIVITY IN SCIENTIFIC APPROACH-BASED LEARNING

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**Abstract:** Herewith nurturant effect of scientific approach-based learning model on student attitude growth of honesty, responsibility and creativity. This learning/course model has been conducted on Research Method Course for six months at Indonesian Language Department of Universitas Siliwangi Tasikmalaya. The used Method of research was experimental collecting test data and observation. Data was processed quantitatively by mean test and different test. The result known that scientific approach based learning give positive impact on the growth of honesty, responsibility and creativity toward student attitude. It's suggested to the other courses using scientific approach.

**Keywords:** Creativity, Honesty, Learning, Model, Responsibility, Scientific.

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## I. INTRODUCTION

Course is not only functioned to insight the knowledge and skill but also has to be considered their impact to the growth toward student positive behavior such as honesty and responsibility. There are so many learning such have just like recitation not intellectual activity, so that student behavior doesn't grow and amend (Fahinu, 2013: 163). Learning activity only which being directed to grow knowledge and skill could impact growth of student conformism. A person conform, especially unquestioningly, to the usual practices or standards of a group, characterized by conforming, especially in action or appearance (<http://www.dictionary.com/browse/conformism>). Student whose conformism could have behavior as follower and obedient/complaisance. They don't have any creativity. Therefore, education process has to stay away student from conformism because conformism is enemy of creativeness.

The growth of student attitude of honesty, responsibility and creativeness mostly not learned dogmatically dal with aphorism/advice/diction, command and interdiction but influenced by environment atmospheric which in thinking and feeling to make behavior/attitude and act repeatedly until used habitually (Skinner, 2015). The way explained by Lage & Michhael Tregla (2000), that study/learning atmospheric/environmental has a big deal with (play important rule) reform student characteristic. When we are wrong creating study/learning atmospheric/ environmental, it caused bad onto study result.

Learning atmosphere is most related to learning model used. The matter that determine learning model is assumption or principal of referenced learning theory. Anyway, assumption and principal learning theory that make be reference/ approach learning model could determine learning atmosphere characteristic. Each learning atmosphere characteristic has effect on student learning result, either straight impact/ (instructional effect) or nurturent effect (Joyce & Weil, 2010).

Honesty, responsibility and creativity in attitude are *nurturant effect* from learning atmospheric-created. Hence, to grow to those three attitude mentioned, the lecturer have to be able to conduct the course within learning atmosphere proper approach-based. One of course models that suspected to be able to create learning atmosphere is the course scientific

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approach based. This approach in Indonesia must be realized by the teacher in each education level because it is proved potentially growing high level think ability. Science method implemented in learning had proved growing the ability to resolve the problem insight new knowledge based on empirical fact to fulfil modern life necessity (Negel, 2012). Yet, it has not been known exactly whether scientific approach has influence to growth of those positive attitude such as honesty, responsibility and creativity to student.

## II. BODY OF ARTICLE

### 1. LITERATURE REVIEW:

The course aimed at such three aspects, those are knowledge-based goal, skills –based goal, and affective goals. Affective included in values, attitudes and interest (Armstrong, 2017). Attitude often called as *ethical values* including caring, honesty, fairness, responsibility, and respect for self and other (Lickona, Schaps, Lewis 2002; Berkowitz and Melinda C. Bier, 2005). Those are three attitude which pointed in this research, such as honesty, responsibility, creativity. Simith (2017) menjelaskan “Honesty is being truthful in what I say and do.” Honesty is more than just accurately reporting facts. It includes what you say, and it also includes what you *don't* say! For example, if your mom asks, "Did you eat the cookies?" you could accurately say "no" if you just ate *one* cookie. But that would be deceitful. Honesty also includes your actions. For example, to cheat on a test is to pretend you know the answers when you really don't. Or to steal candy from a store is to act like you paid for it when you really didn't (<http://characterfirsteducation.com/c/curriculum-detail/1951185>). Responsibility means to know and do what God, and others, expects of us. The Christian is called to remain steadfast with honesty, and then when we do something wrong, we own up to it, admit our wrong, and do all that we can to fix the problem we caused and the relationships that have been hurt. Responsibility shows us the need to guard our weakness (Krejcir, 2002 dalam <http://www.discipleshiptools.org/apps/articleid=37139&co..>). Creativity is phenomenon whereby something new and somehow variable is formed. Creativity is the ability to produce works. Creativity is a topic of wide scope that is important at both individual and social levels for a wide range of task domains. At an individual level, creativity is relevant for example, when one is solving problem on the job and daily life. At a social level, creativity can lead to new scientific finding, new movement in art, new inventions, and new social programs (Sternberg, 2004).

Student honesty and responsibility grows as the impact of created learning environment by used learning models. As same as Joyce & Weil (2008) that the description of the effects of models can validly be categorized as the direct or instructional effects and the indirect or nurturant effect. The instructional effects are those directly achieved by leading the learner in certain directions. The nurturant effects come from experiencing the environment created by model. Honesty dan responsibility are hasil belajar berkategori indirect category result of study or nurturant effect from conducted learning model.

The true learning performance must be formed by three steps such as approach, method and technique (Brown, 2000). Joyce & Weil (2009) explained that learning process is formed by model orientation, learning model step, application, instructional and nurturant effect. Approach model according to Brown and Orientation model according to Joyce & Weil have the same mean due to define assumption phase, theoretical principal and concept which in based learning realisation carried out. Created step and atmosphere in learning realization determinable most by learning approach referenced.

Learning approach became priority in learning realization in Indonesia is scientific approach. Scientific approach is a body of techniques for investigating phenomena, acquiring new knowledge, correcting and integrating previous knowledge (Zaim, 2017). According to Varelas and Ford (2008), “The scientific approach allows teachers or curriculum developers to improve the learning process, namely by breaking the process down into steps or stages in detail which contain any instructions for the students to carry out learning activities.” Learning syntax throughout scientific approach include such as observing, questioning, associating, and communication. *Observing* is student activity to observe phenomenon of object directly related to learned matter of course. *Questioning* is activity to make question as the problem related to discussed course matter object phenomenon. *Asosiating* adalah kegiatan menalar dalam memecahkan permasalahan. *Communicating* adalah kegiatan mengomunikasikan hasil menalar berupa keputusan/jawaban dari pertanyaan yang diajukan. (Kemendikbud, 2013).

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One of approved approach had positive impact to grow attitude the student is cognitive Learning Theory Approach. This approach had appeared models such as problem-based learning and inquiry model. Problem Based learning (Wijaya, 2014 and Dwijayanti, 2010) and inquiry model within *engagement, explorasi, explanation, elaborasi, and evaluation* cycle (Asna, 2014) had nurturant effect on growth of citical, analytical, consistency, responsibility and responsive.

### 2. METODOLOGY:

The used research method is quation-experiment toward pretest - in-test - postest design. The activity procedure included in (1) determining sample for experiment classmate, (2) measuring attitude toward honesty, responsibility and creativity, pretest activity carried out by questioner, (3) in-test activity carried out byscientific approach, with measuring attitude by behavior observation during in-test (4) measuring attitude honesty, responsibility and creativity, posttest activity by questioner.

Collecting data technique was carried out by questioner and observation. Questioner technique used to gain attitude data of student honesty, responsibility and creativity pretest and posttest. Observation technique used to gain attitude data of student honesty, responsibility and creativity appearing in test. Data of observation result become raw matter for justifying questioner data.

Measuring attitude deal with honesty, responsibility and creativity was carried out by questioner and observation in following indicator:

No.	Measured Attitude	Measured attitude indicator
1	Honesty	Honest in doing task
		Honest in take other author master work.
		Honest in expressing as it is
		Honest in claiming either committed mistake or weakness
2	Responsibility	Doing individual task well
		Ready to committed risk
		Not suspect people without fact
		Apologizing when do wrong
3	Creativity	Responsible to the task or matter
		Take a part in discussion/problem solving actively
		Hard effort to gain better result
		Create innovative idea

Research sample is 30 students (1 classmate) of 122 population that divided become 4 classmate. Collecting samples are purposively. The student being population is from Bahasa Indonesia Study Program, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Siliwangi Tasikmalaya whose contract Research Method Course on odd semester 2017/2018.

The research was held for six months (August 2017 – January 2018). On August 2017 made research plan. Since September – Desember 2017 in research throughout rbasis scientific approach-based learning on research methodology course. On January 2018 made the report of research result.

Processing data used is statistical mean test and t-student test. The mean test used for determining tendency to center to attitude each learned indicator. T-student test used for determining impact of scientific approach-based learning on growing attitude deal with student honesty, responsibility and creativity.

### 3. RESULT:

Scientific approach-based learning procedure carried out onto research methodology course during 4 months within 16 meeting in classmate, covering followed activity:

#### a. Observing:

Whenever learning begin, the student given task to observe the case or product that have to be done by them. By observing, the student tries to build early concept of case or product according to their experience.

#### b. Questioning:

After observing the case or product, lecturer give the question as problem that have to be resolved within its learning.

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### c. Associating:

The student make team work to discuss question given by lecturer by mean discussing, finding out information from reference and factual occurrence. Associating product is get along provisional answer of problem given by lecturer.

### d. Presenting:

In this step, the student given task to present of problem associating result from their lecturer. Presented matter is discussed in class discussion, then reflected by lecturer till become collective conclusion.

Attitude measured result throughout interviewing and observing that be done pre, in and posttest following:

No.	Attitude	Measured Indikator	$\bar{x}$ Pre-test	$\bar{x}$ In-test	$\bar{x}$ Post-test
1	Honesty	Honest in doing task	50	75	70
		Honest in take other author master work.	65	85	90
		Honest in expressing as it is	45	70	85
		Honest in claiming either committed mistake or weakness	40	85	85
2	Responsibility	Doing individual task well	45	90	95
		Ready to committed risk	30	75	80
		Not suspect people without fact	50	90	90
		Apologizing when do wrong	60	85	90
3	Creativity	Responsible to the task or matter	50	90	90
		Take a part in discussion/problem solving actively	45	95	90
		Hard effort to gain better result	50	95	95
		Create innovative idea	30	60	75

The average measure shown in table determined that the attitude growth honesty, responsibility and creativity of student within *pre-test* to *post-test* in learning showed very positive progress. The average measure toward attitude by observing during learning process (*in-test*) showed increasingly positive compared result average in pre-test. By t student test on average score *pre-test* and *post-test* all of measured attitude indicators showed meaningful increase, based on level significance 0.1. However, average attitude score during learning process (*in-test*) is not significant to average attitude score post-test. This data approved that scientific approach-based learning is efective used to grow attitude due to honesty, responsibility and creativity of student.

### III. DISCUSSION

Scientific approach-based learning forced student more active to learn. Lecturer play the role as supervisor and director, whereas student forced to focus, participate, reflect and communicate their learned matter. In the early learning, student forced to focus to observe case as matter phenomenon on course matter that time. Throughout observing full focus, the student must be able to build concept according to their own knowledge. Next step, student forced to response to participate giving opinion toward proposed phenomenon by lecturer throughout discussion forum and team work. The final step, student forced to present team/individual decision about learned phenomenon.

Student behavior striving toward step by step learning that done repeatedly is proved can build attitude behavior. The student often given task to observe case will grow attitude habit toward precise, read up (do utmost) and responsible. Whenever often given task to resolve phenomenon throughout discussion, team work and own self finding will grow attitude habit toward honesty, responsibility, creative and democratically. Then, being forced to present result finding, so will grow attitude habit toward honesty, responsibility and creative. This research finding can strengthen behaviorism learning theory, deal with Operant Conditioning (Skinner), that voluntary response is then followed by a reinforcing stimulus (David, 2015).

### IV. CONCLUSION

The measured data toward honesty, responsibility, and creativity attitude between pretest and posttest showed increasing enough. Validity justification on pretest and posttest score, there were the mean data of measured attitude by observation as long as in test. The mean score in-test and score post-test was not significantly, whereas the mean score between in-test and post-test was strong significantly. The conclusion that scientific approach based learning is effective to be implemented to grow honesty, responsibility and creativity attitude of student.

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This research could be followed up by other lecturer throughout study on their own courses. Researcher ensure that scientific approach is not only give positive impact toward thinking quality in course matter capacity/ability but also to grow good attitude of student.

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