

**THE INFLUENCE OF LEARNING RESOURCES UTILIZATION TOWARDS
THE STUDENTS' LEARNING ACHIEVEMENT WITH CRITICAL
THINKING SKILLS AND ENGLISH SKILLS AS
THE MODERATING VARIABLES AT
STMIK AMIKOM SURAKARTA
ACADEMIC YEAR 2024/2025**

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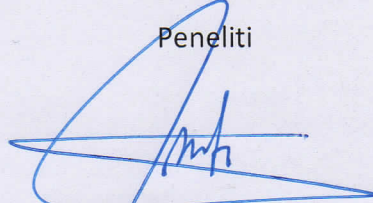
Untuk melaksanakan kegiatan Penelitian **"The Influence of Learning Resources Utilization Towards The Students' Learning Achievement With Critical Thinking Skills and English Skilla As The Moderating Variables at STMIK AMIKOM Surakarta Academic Year 2024/2025"**, yang akan dilaksanakan pada bulan Januari - Mei 2025 .

Demikian surat tugas ini dibuat untuk dapat dipergunakan seperlunya.

Surakarta, 24 Januari 2025

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STMIK AMIKOM Surakarta

Abstracts: This research was aimed at investigating the influences of STMIK AMIKOM Surakarta students' skills at utilizing learning resources moderated by critical thinking and English skills as two of parts to select and come to a definite inference to become the chosen reference in their efforts of increasing learning achievement.

This research was a correlational-descriptive one. It was descriptive for it tried to get a definite description about related facts to such variables as learning resources utilization (X_1), critical thinking skills (X_2), English skills (X_3) and learning achievement (Y); and it was correlational since it detected how closed interactive variaties of a variable related to other interactive variaties of one or more other variables. This research approach was quantitative i.e. the numeric data of the 158 sample students (from 294 population at 5% df) were statistically analyzed –to analyze whether or not the independent variables influenced the students' learning achievement. In addition, some cases that violated from the research hypothesis (taken from *open/close ended interview*) were qualitatively analyzed.

The analysis done yielded 1) that learning resources utilization (X_1) positively and significantly influenced students' learning achievement (Y) as seen at the value of $t_{\text{calculation}} > t_{\text{table}}$ ($7,637 > 1,980$) with $p \text{ value} < \alpha$ ($0,000 < 0,05$); 2) that critical thinking skills (X_2) acted as a moderating influence towards the students' learning achievement (Y) as seen at the value of $t_{\text{calculation}} (X_1 * X_2) > t_{\text{table}}$ ($2,474 > 1,980$) and $p\text{-value} < \alpha$ ($0,014 < 0,05$); and 3) that English skills (X_3) acted as a moderating influence towards the students' learning achievement (Y) as seen at the value of $t_{\text{calculation}} (X_1 * X_3) > t_{\text{table}}$ ($2,048 > 1,980$) and $p\text{-value} < \alpha$ ($0,042 < 0,05$).

Key words: Learning Resources Utilization, Learning Achievement,
Critical Thinking Skills, and English Skills

Introduction

Learning is a natural process done by human to overcome all ongoing troubles and challenges to survive their existence. Naturally they comprehend what the nature is and what happens to him, finally to get competence to control,

overcome, and to benefit from the situation in order to guarantee their existence, prosper and life development.

Learning as a natural activity and education as a conscious effort should be treated by educators in all education levels as designing a learning that fits to its level, to the learners' characters, to the technological, social and cultural aspects, as well as to the benefits of the learners' in a small scope and of the national development in a wider scope. It is widely known two terms of education, they are pedagogy –the science or arts of teaching children and andragogy –the science or arts of helping adults to learn.

The application and implementation of educational objectives is already stated in the learning processes done at all the Indonesian education instances. Every formal education instance takes a role and responsibility to provide their students learning competences, based on the state that learning is a long life activity.

AMIKOM Surakarta as one of formal high education colleges and as a facilitator for the students to develop their competences optimally is expected to be able to give systematic long life learning competence to the students, so that they can get their best academic achievement and such non-academic achievement as a special skill according to their initial motivation to learn.

Learning at a university constitutes a strategic choice to get an individual purpose. Their understanding about that learning objective will truly determine their attitudes and personal views of how to commit their learning at that university. Ideally, those who have got a formal education will possess views, knowledge, skills, personalities and attitudes which all fit to that college expectations. One to note that learning is an individual activity that they mean to do it for a certain individual purpose. The final result of a learning process is a learning achievement.

Students' learning achievement have dual functions, i.e. as the parameter of the learners' learning process and also as a subject self-evaluation. In fact, the second function is often neglected even though the first function actually depends on moral value to introspect whether or not the learners had underdone the

learning process. The students' scores usually reflect an indicator of the student's success on the subject, but it does not reflect the success of the learning process in its effort to change their knowledge attitudes or personalities as well as their logical way of thinking.

The examination score as one of success parameter must be considered its validity. For students who have definite individual goals, scores surely do not show their goals to achieve but moreover it is a logical consequence to what they had done during the learning process. Therefore, the very fundamental question then is whether they are learning for scores or for new knowledge.

Those who study at university are engaged to have not only technical skills but also thinking power and framework as well as certain mental personalities so that they have wide views to overcome real world or society.

The purpose of every learning process is to get an optimal learning achievement. This can be achieved when students actively get involved physically, mentally and emotionally. It is a learning strategy which needs the student's self-effort to manage himself to learn what (make use of all existed learning resources) and how (with all supporting learning media) as well as to have self-assessment and any other adult ways of learning.

Some external factors of learning achievement involve family, school and society environment. It means that environment belongs to learning resources that can be applied to learning process. According to Sudrajat (2008 :1) learning resources are such external factors as data, person, and certain manifestation that can be applied by learners in their learning process, partially or integrally being combined in order to ease learners to achieve learning objectives or to get a certain competence. Learning resources can be in form of **message** (information/materials); **person** (teachers/lectures and other source man) **tools** (such hard wares as TV, computers) **approach/method/technique** (seminar, discussion) and **environment**. Anitah (2008 :5) states that learning resources can be resources by design (such as materials, students workbook) and resources by utilization.

In line with the adult way of learning, teachers or lectures take the role of giving motivation, direction, counseling and learning facilities in their whole learning process. Meanwhile learning resources take the role of providing any information and knowledge needed to develop their expected competence on the subject.

The internal factors then are any factors coming from the students involve: physiological, psychological (intelligence, competence, attention, talent, concentration, maturity, etc). The success of learning must supported by students' internal motivation to acquire new things and overcome troubles.

Many argue that to achieve an optimal learning achievement needs smart thinking and problem finding being analyzed. The current fact shows the lack of critical thinking –a competence to process facts and data in some such steps as observation, hypothesis, exact and analytical evaluation so that it results in an accurate inference.

Those who have critical thinking will overcome any difficulties basing on the existed fact and analyze how to do it. They have strong motivation to learn to acquire a competence based on their previous knowledge and experience. They actually are doing what so called as self-directed learning. Students who are already familiar with self-directed learning will automatically be easier to understand lessons which leads them to get optimal learning achievement.

Mudjiman (2006 :58) states four models of active learning that reflect adults learning or self-directed characteristics, they are; *Problem Based Learning, Independent Learning, Competence Process Approach, Instructional Management by Parents, Community ans Teacher (IMPACT)*. The first two models PBL and IL try to increase learning motivation by activating learning process.

A lecturer who activates his students' learning process by basing on a problem gives lecturing-tasks which engaged them to search for learning source or references so that they finally acquire the assigned tasks. Students soon analyze the given problems, predict the answers, search for the related data, then analyze the data to find the inference of those problems.

A student who is interested in a problem, he must search for any related information sources from any documents/books/experts/blogs or must attend to a forum which is discussing it. Here, the lecturer plays a role by giving them systematic steps on deciding goals, looking for alternative learning sources as well as assisting them if needed.

In doing the self-assisted learning (IL or PBL) students may find difficulties on some references using foreign languages (especially English) to accomplish their lecturing tasks. If their English skills are still poor, they will get any troubles in comprehending them and finally will fail to submit the tasks. Students often find difficulties on understanding the references in English texts. And the lack of English acquisition will also affect on the students' interest in learning the subject. When it is heeded away, it will become a handicap for students to master the learning materials and automatically will influence in their learning achievement.

A critical thinking which is based on good English skills will effectively maximize the student efforts to utilize the existed leaning resources and finally will increase their learning achievement.

Underlying Theories

Learning is a process of changing attitudes, knowledge, and skills as the result of individual interactions with their environment. Mudjiman (2006 : 23-27) states a constructive learning paradigm –that any development occurred in the students knowledge is because of their own efforts. The more students development can be done by giving them stimuli in forms of any relevant real world problems to their needs, being discussed and found out their solutions. The given stimuli are aimed at stimulating the students to argue and state their critical thinking when they are faced with new challenging facts.

Based on the constructivism paradigm, the educators design the learning process by deciding problems, grouping students, referring the last knowledge and experiences, giving questions to guide students' activities in searching and analyzing new data and information relating to the problems, communicating the works to other groups, as well as reflection upon the activities by identifying

failures and success as well as its causes. Before making the learning design, the educators must know how to stimulate the students' learning motivation.

Following the above paradigm, the fittest learning to the students is andragogy –the science or arts of helping adults to learn. Andragogy is a learning method for adults or maturity on physics, age, psychology, as well as students social participation. Here the teacher role is to motivate students to execute what they have acquired, knowledge and experiences, in order to be able to understand and interpret new knowledge and experiences. When in a learning, a learner does not involve others, the learner himself acts as the main role. In addition the learning resources utilization by the student is one of the adult way of learning especially in deciding what, how, goals as well as self assessment.

A learning resources utilization is an act of self directed learning in which students with or without lecturer assistant analyze problems, predict answers, search data or references, analyze data and finally stating the conclusion of the problem solving. In his effort to utilize learning resources, students are obliged to be able to do actively intellectual processes such as making concepts, applying, analyzing, sintesizing, and evaluating the observed information. The above competences are so called as critical thinking skills such as 1) *interpreting* 2) *Analysis* 3) *Evaluating* 4) *Inference* 5) *Explanation* and 6) *Regulating*.

The critical thinking skills in utilizing learning resources must be supported by the students English skills. English is so commonly often used in references that its mastery will help the students to get and fully understand the references easier and more effective. Both the students critical thinking and English skills are obviously proved to help students to gain their best optimal learning achievement. The critical thinking framework of this research is figured as follows:

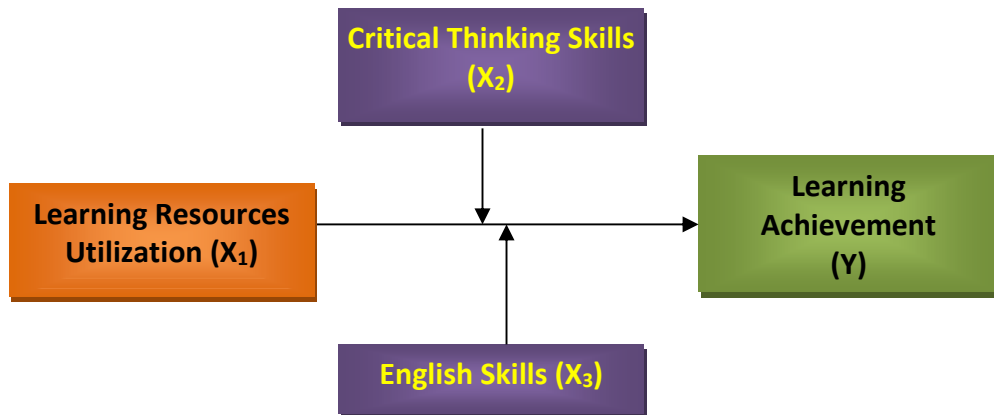


Figure 1

Research Conceptual Framework

Research Method

The research was done at STMIK AMIKOM Surakarta from October 2024 until March 2025. It is a descriptive correlational research since it tried to describe students skills at utilizing learning resources, critical thinking and English being correlated to their learning achievement. The research approach used was quantitative but it does not close to give comments qualitatively upon some hypothesis violation.

Population and Sample: All students of STMIK AMIKOM Surakarta in semester III and V 2024/2025 became the research population, they are 294 in number (141 semester III and 153 semester V) Sugiyono (2004 :87) states the sample of 294 data in error level 5% is 158 students (76 semester III and 82 semester V)

Data Collection Technique: To collect the quantitative data, documentation is used for collecting (students learning achievement and English skills) and questionnaire for (learning resources utilization and critical thinking), while the qualitative data is collected by interviewing the students. The instrument used in this research is questionnaire consisted of questions in likert scale of 5.

Data Analysis: 1) Simple Regression Analysis: Applied to know the influence of learning resources utilization towards the students learning achievement. $Y = 1,603 + 0,014.X_1$ 2) Complex Regression Analysis: Applied to know the influence

of learning resources utilization towards the students learning achievement being moderated by students' critical thinking. $Y = 7,072 + 0,027 (X_1) + 0,070 (X_2) + 0,001 (X_1 * X_2)$ and being moderated by students' English skills $Y = 3,660 + 0,006 (X_1) + 0,617 (X_3) + 0,006 (X_1 * X_3)$ 3) t-Test: Applied to see the significance of the influence of X1, X2, and X3 toward Y partially 4) F-test: Applied to see the significance of the influence of X1, X2, and X3 toward Y integrally, and 5) Determinant Coefficient (R2): To know the contribution percentage of X1, X2 and X3 to Y

Research Findings

The research findings can be seen as follows: 1) that students learning resources utilization positively and significantly influence the students learning achievement, based on the calculation of $t_{\text{calculation}} > t_{\text{table}}$ ($7,637 > 1,980$) with $p < \alpha$ ($0,000 < 0,05$); meaning that the maximum the students make use of any existed learning resources at the inside or outside campus the more positive and significant its influence towards their learning achievement as well as their new knowledge acquisition, 2) that the students critical thinking skills moderate the influence of learning resources utilization towards the students learning achievement, based on the finding calculation of $t_{\text{calculation interaction}} (X_1 * X_2) > t_{\text{table}}$ ($2,474 > 1,980$) and $p\text{-value} < \alpha$ ($0,014 < 0,05$); meaning that the effectivity of students learning resources utilization depends on their critical thinking skills. The critical thinking skills are needed to comprehend and filter which information/reference will support and have closed relation to the materials being searched for, and to enable students to have eclectic personal views to get the final conclusion of the target information or reference. The learning resources that are effectively make use of and analyzed critically will become a supporting component to the optimum students learning achievement 3) that the students' English skills moderate the influence of students learning resources utilization towards the students learning achievement based on the calculation of $t_{\text{calculation interaction}} (X_1 * X_3) > t_{\text{table}}$ ($2,048 > 1,980$) and $p\text{-value} < \alpha$ ($0,042 < 0,05$). Meaning that the students English skills influence the students skills at utilizing

the learning resources. To understand literature and references delivered in written or spoken English needs the students' good English acquisition, so that the learning resources can be understood and make use. Obviously the mastery of English vocabularies at certain subjects will affect the student comprehension upon the subject being learned.

Conclusion, Implication and Suggestions

Conclusion. that students learning resources utilization positively and significantly influence the students learning achievement, 2) that the students critical thinking skills moderate the influence of learning resources utilization towards the students learning achievement, 3) that the students' English skills moderate the influence of students learning resources utilization towards the students learning achievement. These findings proved that there is an interrelation and interaction among students learning resources utilization, critical thinking skills, English skills and the students learning achievement. The students English and critical thinking skills supports the students learning achievement at AMIKOM Cipta Darma Surakarta tahun akademik 2012/2013

Implication The research finding implicates theoretically, methodologically and practically: **Theoretically**, the findings support any existed theories especially those which have closed relation to learning resources utilization, English skills, critical thinking and students learning achievement. It also implicates that future investigation on any factors affect the students learning achievement are needed. The methodological implication of the research are that 1) a very small sample in number and also scope since the investigation was held at STMIK AMIKOM Surakarta with 158 students as the sample, thus it is suggested to hold wider future investigation in sample and scope 2) the research did not differentiate the students level of English and critical thinking. **Practically**, the research implicates that STMIK AMIKOM Surakarta should 1) increase all learning resources in number and especially in quality. 2) AMIKOM Surakarta management together with the lecturer make any supporting effort to arise the students motivation since motivation is the very fundamental factors that affect students critical thinking 3)

AMIKOM Surakarta increase the development of *Problem Based Learning Model dan Independent Learning Model*.

Suggestion The research finding suggests 1) the lecturer: a) creatively develop the teaching learning process; b) give more English portion in their individual/group assignment c) perform exciting and meaningful teaching to guarantee the students master on written and spoken English manifestation d) to develop guided interactive discussion 2) AMIKOM Surakarta a) increase the students learning equipment in number and quality b) motivate the lectures to integrate the critical thinking components such as analysis, inference, and English skill in their teaching process. c) motivate the lecture to design English student workbooks d) to have a certain lecture that stimulate the student critical thinking such as *Seminar on IT* or *Seminar on Management*

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