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Students' Critical Thinking Skill and Its Relation with Knowledge and Experience at Medical Faculty Christian University of Indonesia

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Abstract: ***This study investigates the students' critical thinking and its relation with knowledge and experience at Medical Faculty - Christian University of Indonesia. It is done in order to find out the relationship among the variables and it was conducted at the Christian University of Indonesia exactly at the Faculty of Medicine. The sample of this study was 72 Medical Students which were selected randomly out of 250 Medical Students as the population of this research. Those students who were chosen as the sample of this study are still registered as Student of Medical on 2015/2016 academic year. The instrument usedin this study is a questionnaire consisting of 34 questions. The data were analyzed by Skewness and kurtosis. The finding ofthis study shows that there is a positive correlation among the knowledge, experience and common sense with the students' critical thinking skill. The correlation coefficient among the variables X_1 and X_2 with Y is 0.234. It can be concluded that in order to improve students' critical thinking skills, the knowledge, experience and common sense should also be improved.***

Keywords: knowledge, experience, students' critical thinking skill, correlation

1.Introduction

The ability to think critically is of course indispensable in a various professions, because with the ability of critical thinking which is owned by some one, he can make the right decision. At this time, ifthe development of changes in the world is observed, we experience acceleration in various things that increasingly lead to a more complex interdependent levels. In this case, the ability to think critically is needed. If not, then we will be oppressed by the progress of time. The definition of critical thinking is the ability to collect and assess evidence and information, and use clear methods of reasoning to make the right decisions. With the ability of critical thinking is constantly done, then automatically our minds are evaluated and eventually become a vehicle for improvement of thought processes.In the current era of information and technology, critical thinking is expected to be one of the skills everyone must possess in all disciplines, professions, or every domain/ domain that is different.

In addition, the information technology can help people to improve their critical thinking skills because access to unlimited information is readily available making it easier to implement critical thinking processes to achieve the best solution to problems or make decisions. Things like this can happen because the source of information technology is already providing all the information we need. But along with the many sources of information contained in the information technology is both positive and negative, then there was data or information overflow, thus the selection of information become an evaluation or exercise to improve our thinking skills based on credibility and relevance. From some of the above explanations it can be concluded that learning to think critically is a necessity if we want to be able to make decisions and direct the changes that will shape our future. We must awaken and be conscious about it to make it popular and accept it as the core social value. But the fact that we find is very different, people tend not to learn to improve their critical thinking skills. Because they tend to choose a more practical and quick way of doing things.

This is proven through small observations made by researchers to a number of students, while the findings from the observations say that 80% of them use the resources available on the internet to answer the tasks assigned by lecturers, 15% use internet sources by changing little of what has been earned, and only 5% say that they only use it as a reference only. Despite these facts, there are many other facts such as juvenile delinquency, this can happen because of the critical thinking ability is very low. Critical thinking can be applied in learning situations at school or college, at work and in every business decision, as well as in the democratic society, we can choose political options and select the right political candidate to support the achievement of the chosen option.

The contribution of critical thinking can be implemented in various fields such as; education, employment/workplace that will provide an illustration such as how to manage achievement to be better in achieving learning achievement, and how to make rational decisions in the workplace in giving maximum results. People who have good critical thinking skills are of course supported by various factors, such as knowledge, experience, common sense and also many other supporting factors.Moving on from the above explanations makes the researcher feel very compelled to do a research that tries to find whether knowledge, experience and common sense with critical thinking. So the title of the study was conceptualized as follows "The Relationship between Knowledge and Experience with Critical Thinking Ability of Medical Faculty Students at Christian University of Indonesia." With the expectation of a positive correlation between the variables studied.

2.Theoretical Review

Critical thinking is a general term used every day, which means a reasonable and reflective thinking that is focused on the best decision-making and can be trusted to do. This means, in making a decision-making action, of course critical thinking is necessary in deciphering what topics or matters to be decided upon. This of course cannot be separated from what, when, where, how, why the topic being discussed. The same thing is said by Ennis (1996) that critical thinking is reasonable, reflective thinking focused on deciding what to believe or do. While Paul (1992) said that critical thinking is thinking about your thinking, while you are thinking, in order to make your thinking better. Whereas Mustaji (2012) says that crystal thinking is reasoned and reflective thinking with an emphasis on making decisions about what to believe or do. Of the three definitions can be concluded that critical thinking is the process of producing better ideas, for the purpose of achieving goals or decisions that are more trusted to do.So in the process of doing critical thinking, of course requires the ability and level of intellectual and broad knowledge about something.

So when this is constantly done in everyday, such critical thinking will become a habit that leads to the special skills that will be owned by him.Critical thinking includes the ability to respond to matter by distinguishing between facts and opinions or personal feelings, judgments and conclusions, inductive and deductive arguments, and objective and subjective. It also includes the ability to generate questions, construct, and recognize the structure of arguments, and adequately support arguments, define, analyze, and craft solutions to problems and issues, sort, organize, classify, link and analyze materials and data, integrate information and view relationships, evaluate information, materials, and data by drawing conclusions, arriving at reasonable conclusions and information, applying understanding and knowledge to new and different problems, developing rational and reasonable interpretations, suspending confidence and staying open to information new, methods, cultural systems, values and beliefs and by assimilating information (McPeck, 1981).

More and Parker & Moore (2011) also strongly agree with this saying that cynical thinking is a caution, in the determination that must be done deliberately whether we can accept, reject or suspend judgments about the claims, and our level of confidence to accept or reject it.The same has been expressed by Alvino (1990) that critical thinking is part of high-level thinking or skill. This happens because the critical thinking includes the process of analysis, synthesis process and also the evaluation process. Some things to consider in critical thinking; judgments that result in interpretation, analysis, evaluation, and conclusions, as well as explanations of evidence, conceptual, methodological; and contextual considerations on which the judgments are based.

So the critical thinking person should do the following: high curiosity, open-minded and flexible, fair minded in evaluation, honest in the face of personal bias, prudent in making judgments, willing to reconsider, clear about issues complex, diligent in searching for relevant information, reasonable in the selection of criteria, focus on investigation, and persistent in searching for results that are as precise as subject and obedient to the rules/ethics of inquiry. It does not differ greatly from what is said by (Nickerson, 1987) that there are several characteristics in thinking like the following: a) the existence of the use of proofs as well as balanced, b) able to distinguish logical and valid conclusions with invalid conclusions, c) can give reasons for a decision, d) be able to understand the difference between reasoning and rationale, e) anticipate the possible consequences of alternative measures, f) be able to grasp ideas for high degree of confidence, g) be able to see equations and analogies, h) be able to learn freely and have an interest in doing, i) be able to apply problem-solving techniques, and j) sensitive to the difference between the truth of a belief and its intensity with what can be done.There are several things that can differentiate critical thinkers from non-critical thinkers; Good critical thinkers must have three cognitive skills: they are good at interpretation, analysis, and evaluation.

While non-critical thinkers have three cognitive weaknesses: they are lacking in cognitive skills, to identify and secure the elements necessary to draw plausible conclusions, to form allegations and hypotheses, to consider relevant information and to encourage the consequences of data flow, principles, evidence, judgments, beliefs, opinions, concepts, descriptions, questions, or forms of representation. Besides being less able to interpret, analyze, evaluate and conclude, a good critical thinker can do two more things. They cannot explain what they think and how they came to that conclusion.Thus, from the above explanation it can be concluded that critical thinking is the ability to respond to matter by distinguishing between facts and opinions or personal feelings, judgments and conclusions, inductive, deductive, objective and subjective arguments.

It also includes the ability to generate questions, construct, and recognize the structure of arguments, and adequately support arguments, define, analyze, and craft solutions to problems and issues, sort, organize, classify, link and analyze materials and data, integrate information and view relationships, evaluate information, materials, and data by drawing reasonable conclusions from information, applying understanding and knowledge to new and different problems, developing rational and reasonable interpretations, suspending beliefs and staying open to new information, methods, cultural systems, values and beliefs and by assimilating information.Knowledge is everything that is known; intelligence, or anything that is known about the subject (Sugono, et al., 2008). The definition can be interpreted that knowledge is everything that is in our heads.

While Drucker (1999) defines knowledge as information that changes something or someone, it happens when the information becomes the basis for action, or when the information enables a person or institution to take action beforehand. So knowledge can be interpreted as actionable information or actionable information or information that can be used as a basis for action, to make decisions and to

pursue specific directions or strategies. Similar to Drucker's definition, but relatively easy to understand, the definition of Sveiby (1997) suggests that knowledge is the capacity to act.The experiences and information we hear from others will be a valuable source of knowledge, besides that knowledge can also be obtained from tradition, further Notoatmodjo (2010) adds that even knowledge can also be obtained through history. Knowledge is a matter of debate among philosophers in the field of epistemology that must meet three criteria true, grounded and can be proven.

Further Notoatmodjo (2003) says that there are two ways to acquire knowledge; knowledge acquired in a non-scientific and in scientific way. Knowledge gained by non-scientific means is often done by: a) trial and error, b) incidentally, c) power or authority, d) based on personal experience, e) common sense, truth through revelation , f) truth intuitively, g) through the mind, h) induction, and i) deduction. While acquiring knowledge in a scientific way can be done through scientific research methods that is the search for knowledge by making observations made in a systematic, logical, and scientific. Most of human knowledge can be acquired through the sense of hearing and the sense of sight.If we consider in terms of education, then the knowledge is also strongly influenced by education, education and knowledge are strongly related. That is, the higher the level of a person's education will be the higher the level of ability.

Apart from educational factors, age and experience factors also have a great influence on knowledge. Everyone must agree with what is said by Nursalam (2001) that with age so the level of maturity and strength of a person will be more mature both in thought and trust be it yourself or others to him or vice versa. The same is also expressed by Ahmadi & Prasetya (1997) who said that the older one, the memory will be weaker or decreased.Knowledge has several levels: a) to know; a person's ability to memorize or remember and also recall, 2) to comprehend; someone's ability to explain or explain things correctly, c) to apply; one's ability to apply what is already known in real life, d) to analyze; ability to analyze things based on judgment and truth values, e) to synthesis; one's ability to connect parts into a whole, and f) to evaluate; someone's ability to evaluate or evaluate something.Davenport et.al (1988) describes the general targets of knowledge management systems in practice as follows: a). Creating knowledge: Knowledge is created as people determine new ways to do things or create know-how, sometimes external knowledge is brought into the organization. 2). Capturing knowledge: New knowledge is identified as valued and represented in a reasonable and digestible way. 3). Capture knowledge: New knowledge must be placed in context to be actionable. This shows the human depth (tacit quality) that must be captured along with explicit facts. 4). Storing knowledge: Useful knowledge should be stored in a good format in the storage of knowledge, so others in the organization can access it or use it. 5). Processing knowledge: As a library, knowledge must be up-to-date. It should be reviewed to explain whether the knowledge is relevant or accurate. 6). Disseminating knowledge: Knowledge must be available in a format that is beneficial to all persons or members within the organization requiring such knowledge, wherever and available at all times.

Experience is an event, which is lived, lived, borne by someone in his life. The same is also expressed by Siagian (2002), who says that experience is a lesson a person has learned from the events he or she has made in the course of his life. Experience is the best teacher, surely we hear very often the statement. This statement has two meanings based on what is contained in the word experience: as part of events or events in the course of life that occurred in the past. The emphasis is that the experience is an event or event that afflicts itself or others. Furthermore, if viewed from the side of the affected person is based on self experience and experience from the other side.Self-experience is the best teacher can be described as events or events that occurred in the past that happened to ourselves and did not happen to others, then from events or events that we make as a lesson or warning to step journey of the next life. By interpreting this phrase, it is clear that the pleasant and unpleasant events that do happen to ourselves are not over events or events that happen to others and only ourselves who feel and ourselves bear the consequences.

Furthermore, referring to the above phrase, the incident or unpleasant event will be our basis for taking the wisdom that we must be careful in acting and speaking, to plan carefully before stepping away and reconsider carefully. Without planning and consideration in determining the pace of life, then most likely we will fall into an unpleasant life and deterioration. As for the events or events that are fun, then we will take the wisdom to always and continue to follow the steps we take before a pleasant life comes to us. We must learn to make sense of life by studying and taking wisdom from events or events that happen to ourselves. If that befell is something pleasant, then it does not matter because it has been in accordance with what we expected before. But if what happens to us is something unpleasant and even painful, then it will always be embedded in our minds as long as we cannot release it yet.The other person's experience is the best teacher then the thought that is in our mind is that we see, hear and try as best we can to feel what others feel in the level of sympathy or empathy. Thus the understanding of the expression of the experience of others is the best teacher, meaning that an event or event that has happened to others then we learn from the experience as our provision in the journey through our own lives.

In other words, the event or event has not yet happened to us and we have not felt it at all. If that befell it is something fun then it will not make a problem for us and can be as motivation and lesson on ways to be able to achieve our own expectations by learning from the experiences of others. If that befell it is something unpleasant, then our luck can learn from the experience of others before something unpleasant that happened to us.Thus we will always be careful and vigilant in responding and taking our next step. We will always try to make better preparation and planning to avoid pain and deterioration.

It is very difficult to give a firm meaning or definition to common sense. According to Moore (2011), although he is known as the Common Sense epistemologist, he does not limit the terminology. That's because, the term Common Sense is a simple term that cannot be defined (undefinable).Historically this idea of common sense has begun since the initial thought of the emergence of conversations about human knowledge. Thought was initiated by the great philosopher Plato. This is because, philosophy before Plato is more directed to the problem of the nature of the universe. Common Sense for Plato is a common opinion (Common Opinion), a knowledge that is the result of the perception of the common man (the man in the street). About an object that is directly perceived by the subject of a simple nature that is only a picture (copy) the actual real object. The subject assumes that his knowledge has reached the real truth. Plato does not deny the existence of this kind of knowledge, but Plato puts it as the least of the kind of knowledge that Plato describes as the knowledge of Eikasia. Knowledge of this type is the knowledge of objects in the form of shadows of material objects. Subjects only know the shadows of objects. Objects that are real knowledge exist in the world of ideas.Another Greek philosopher was Aristotle. In contrast to Plato's teacher, for Aristotle Common Sense or the Communist Census it is a faculty that exists within the human being that is the ultimate ability to decide a knowledge of a concrete reality that is common to many people (Common Sensible). Objects realized by the subject directly. Subjects perceive through the senses. For Aristotle only through the sense of the perceived object will become a proven knowledge.

The thinkers of empiricism or epistemological realism in Britain follow in the footsteps of Francis, et. al. (1967) have laid the groundwork of inductive thinking. Common Sense for Bacon is a general belief that runs on a special object that is logically understood by inductive inference. Inductive inference should be made to avoid knowledge errors caused by deviant thought. The perverse thought was by Bacon referred to as idols (idols). The idols are the idols of the tribe, the idols of the cave, the idols of the market, and the idols of the theater. (Organun, 1967).Another British thinker is Berkeley. Berkeley laid the foundation of knowledge on the ability of the mind (mind) of man. Knowledge happens because of the urge of thought. Knowledge is the image of objects in the form of an idea of sense perception. Objects are things that can be sensed. Common Sense is a human ability to perceive a real object in the form of the appearance of objects that are perceived by senses of insistence on the mind or mind. Common Sense Knowledge is the knowledge of the average person about reality, so it is not a real idea, because it does not show a justifiable evidence.

Thomas Reid a Scottish philosopher who belongs to the circle of English tradition builds his philosophy based on Common Sense. It is this philosopher who inspired Moore to build the Common Sense Epistemology. Knowledge for Reid is the accumulation of experience through simple understanding (simple apprehension). The evidence of knowledge depends very much on the evidences of the act of sensing, storing in memory and imagination. The evidence of knowledge depends very much on the relation of the object to the subject, for that knowledge is pure and accurate. The knowledge that evident is not solely due to reasoning is derived from Common Sense. Common Sense for Reid is universal belief, a universal belief in the reasoning of experience that settles in simple understanding.Francis Herbert Bradley and George Edward Moore Bradley are Hegelianistic idealistic philosophers who were targeted by the attack of George Edward Moore to revive realism in England. For Bradley. Common Sense is the perception of the universal or the absolute that is revealed in the apparition not the actual perception. Knowledge is the knowledge of the universal apparition. Moore builds his philosophy on Common Sense. Moore's epistemology is built on the epistemology of Hume, while the Common Sense concept is based on Reid's philosophy. The knowledge for Moore is the sensory perception of a material object that results in sensory data. Direct apprehension of sensory data involving awareness activities will give birth to Common Sense knowledge.

Thus, Common Sense for Moore (2011) is an integrated capability between sensing activity and awareness activity about objects of material objects directly. This ability produces a universal belief, because the object of the external world must and can be known together universally. Universal also in the sense of its existence is always so or almost no change.Thus it is concluded that common sense is the understanding and ability to think and act in a natural way to make good decisions.

3.Research Methods

The research method used in this research is correlation research. This research was conducted at the University of Christian Indonesia precisely in the Faculty of Medicine. The respondent of this research was 72 students who were selected out of a total population of 250 students, who are still actively studying in the Education Program Doctor Force 2015/2016. This research was conducted for 6 months starting from August 2016 completed with January 2017. The technique of sampling applied in this research was random sampling technique. The instrument used in this study was a questionnaire consisting of 34 questions, and the data were analyzed by Skewness and Kurtosis test.

4.Results and Discussion

In this section, the data which were obtained the instrument of this research are described. From the result of test of variable reliability test as can be seen in table below found that: Knowledge (X1) where t - critical = 0.60 whereas Alpha - Cronbach (α) = 0.83, meaning that variable (X1) is reliable can be used as instrument in this research. Experience (X2) where t - critical = 0.60 whereas Alpha - Cronbach (α) = 0.71, meaning that variable (X2) is reliable feasible to be used as research instrument. Variable Students' critical thinking (Y) where t-critical = 0.60 whereas Alpha-Cronbach (α) = 0.91, is reliable feasible to be used as research instrument.

Table 1: The Reliability of the Instruments

Variabel	Pengetahuan(X1)	Pengalaman(X2)	Akal sehat(X3)	Berpikir kritis Mhs FK.UKI (Y)
Alpha – croncbach (α)t-kritis	0.83 0.60	0.71 0.60	0.91 0.60	0.91 0.60
Relibilitas (α>t-kritis)	**Reliabel**	**Reliabel**	**Reliabel**	**Reliabel**

The data described in this study are summarized in the following table:

Table 2: Pengujian Persyaratan Analisis

Var	Min Score	MaxScor	Std. Dev	Re-Mean	Median	Modus
Y	38.00	58.00	4.7380	46,20	46.00	46.00
X1	17.00	27.00	2.3113	21.40	21.00	22.00
X2	9.00	20.00	2.3113	14.47	15.00	15.00

The requirements of the analysis should be fulfilled so the regression analysis can be done, both for predictive purposes and for the purpose of testing the hypothesis. There are three requirements that must be fulfilled before performing hypothesis test for regression analysis, either simple regression or multiple regression, namely: (1) normality requirement (Skewness and Kurtosis test), (2) homogeneity requirement, and linearity requirement. Normality requirement test is performed with SPSS version 17.0.

Table 3: Skewness and Kurtosis Test

Variabel	N	Skewness Std. Error	Kurtosis Std. Error	Ratio "p"	Normality -2<"p">2
Y = Students' critical thinking	72	0.283	-0.334	-0.051	Normal
X1= Knowledge	72	0.283	-0.334	-0.051	Normal
X2= Experience	72	0.283	-0.334	-0.051	Normal

Skewness and Kurtosis tests for normality: if the ratio std. Error Skewness with std. Error Kurtosis = "p" = -0.051, is between -2 and +2, so the data is normally distributed. Based on homogeneity test and linearity in the table below can be explained as follows:

Table 4: Data Homogenity dan Linearitas Y on X1

			Sum of Squares	df	Mean Square	F	Sig.
Critical thinking * Knowledge	Between Groups	(Combined)	230.547	10	23.055	1.032	.428
		Linearity	118.439	1	118.439	5.299	.025*
		Deviation from Linearity	112.108	9	12.456	.557	.826
	Within Groups		1363.328	61	22.350		
	Total		1593.875	71			

*Significant; linearity is fulfilled (0,025<0,05)

Table 5: Data Homogenity dan Linearitas Y atas X2

			Sum of Squares	df	Mean Square	F	Sig.
Critical thinking* Experience	Between Groups	(Combined)	447.054	11	40.641	2.126	.032
		Linearity	323.258	1	323.258	16.912	.000**
		Deviation from Linearity	123.796	10	12.380	.648	.767
	Within Groups		1146.821	60	19.114		
	Total		1593.875	71			

**Significant; linearity is fulfilled

Based on homogeneity test using SPSS version 17.0 concluded the data come from homogenous and linear population.

Hypothesis Testing

1. First hypothesis testing; the knowledge (X1) and its relation on students critical thinking(Y).

Statistical analysis of simple correlation between knowledge (X1) andstudents' critical thinking (Y) shown by the regression equation Y = 34.249 + 0,559 X1, as it is seen in the following table.

Table 6: Simple regression between knowledge (X1) and critical thinking (Y)

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	34.249	5.074		6.750	.000
	Knowledge	.559	.236	.273	2.370	.021
a. Dependent Variable: Critical thinking (Y)						

Based on the test of significance and regression kelinearan test above can be concluded that the regression equation Y = 34.249 + 0,559 X1 is linear and significant. The equation shows that every increase of 1 score Knowledge (X1) resulted in an increase (0,559) Critical thinking (Y).

Table 7: Test the significance of knowledge correlation coefficient (X1) with Students' critical thinking (Y)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	**.273**[a]	.074	.061	4.59104
a. The independent variable is: (Constant), knowledge				

b. Dependent variable: critical thinking(Y)

Knowledge coefficient correlation (X1) with critical thinking (Y) is equal to 0.273 medium strength correlation between knowledge (X1) with students' critical thinking (Y) is shown by correlation coefficient ry1 = 0,074 which means correlation strength 7.40% variation of variable Y can be explained by variable X1 premises. The significance test of the correlation coefficient is listed in the following table.

Table 8: First Hypothesis Test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	118.439	1	118.439	5.619	.021[a]
	Residual	1475.436	70	21.078		
	Total	1593.875	71			

a. Predictors: (Constant), Knowledge (X1)
b. Dependent Variable: Critical thinking. FK.UKI (Y)

Thus it can be concluded that the first hypothesis is very significant because the level of significance based on the above table obtained 0,021 <of significance test 0,05.

2. Second hypothesis testing; experience (X2) and its relation to with students' critical thinking (Y).

Statistical analysis of simple correlation between experience (X2) and students' critical thinking (Y) shown by the regression equation Y = 33.388 + 0.886 X2, as can be seen in the following table.

Table 9: Simple regression between experience (X2) and students' critical thinking (Y)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	33.388	3.079		10.843	.000
	Experience	.886	.210	.450	4.220	.000

a. Dependent Variable: Critical thinking (Y)

Based on the significance test and the regression linearity test above can be concluded that the regression equation Y = 33.388 + 0.886 X2 is linear and significant. The equation shows that each increase of 1 score experience (X2) resulted in an increase (0.886) students' critical thinking (Y).

Table 10: The significance test of the correlation coefficient between experience (X2) and students' critical thinking (Y)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.450[a]	.203	.191	4.26048

a. Predictors: (Constant), Experience
b. Dependent Variable: Critical thinking FK.UKI (Y)

The experience coefficient correlation (X2) with critical thinking (Y) is 0.450 while the correlation strength between experience (X2) with critical thinking(Y) is shown by correlation coefficient ry1 = 0.203 which means correlation power 20.30% variation of variable Y can be explained by variable X2 premises. The significance test of the correlation coefficient is listed in the following table.

Table 11: Second hypothesis test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	323.258	1	323.258	17.809	.000[a]
	Residual	1270.617	70	18.152		
	Total	1593.875	71			

a. Predictors: (Constant), Experience (X2)
b. Dependent Variable: Critical thinking

Thus it can be concluded that the second hypothesis is very significant because the level of significance based on the above table obtained 0.000 <from the significance of the test 0.05 and 0.01.

3. Third hypothesis testing; multiple regression relationship knowledge (X1), and experience (X2) together with students' critical thinking (Y).

Statistical analysis of correlation between knowledge (X1) and experience (X2)together with critical thinking (Y) is shown by the following regression equation: Y = 22.264 + 0.373 X1 + 0.739 X2, as described in table 16 below.

Table 13: Multiple Regression between knowledge (X1) and experience (X2) together with Students' critical thinking (Y)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	22.264	5.659		3.935	.000
	Knowledge (X1)	.373	.224	.182	1.667	.100
	Experience(X2)	.739	.215	.376	3.436	.001

a. Dependent Variable: Critical thinking

Table 14: Test of regression coefficient correlation of Knowledge (X1) and Experience (X2), together with Students' critical thinking (Y)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.516[a]	.266	**.234**	4.14715

a. Predictors: (Constant), Knowledge (X2), Experience (X1)
b. Dependent Variable: Critical thinking (Y)

Based on the significance test in Table 17 above, it can be concluded that: Knowledge correlation coefficient (X1) and experience (X2) together with students' critical thinking (Y) is: coefficient of determination correlation ry1,2,3 = 0,234 which mean correlation power 23,40%. variable Y can be explained by variables X1 and X2while the rest influenced other variabe outside this research.

Table 15: Fourth Hypothesis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	424.352	3	141.451	8.224	.000[a]
	Residual	1169.523	68	17.199		
	Total	1593.875	71			

a. Predictors: (Constant), Common sense(X3), Knowledge(X2), Experience(X1)
b. Dependent Variable: Critical thinking (Y)

Based on table 15 above, the fourth hypothesis is very significant. This means that there is a positive correlation between knowledge (X1) and experience (X2)together with students' critical thinking (Y), based on the table above the level of significance is 0.000 <the level of significance test that is equal to 0.05 and 0.01 means the correlation is very significant.

Based on the rank of partial correlation coefficient between knowledge (X1) and experience (X2) together with students' critical thinking (Y), can be determined by the most powerful independent variables correlated with the dependent variable as the following table.

Table 16: Partial Correlation Rating

Partial Coefisien Corelation	Peringkat
r1.2 = 0,546	Pertama
r1.3 = 0,260	Kedua

From table 19 above, it can be seen that the correlation rank of the independent variable to the dependent variable is as follows: First Rank, Experience (r1, 2) is 0,546; and the second rank is knowledge, (r1.3) of 0.260.

5.Conclusions and Recommendations

From the overall analysis can be concluded that there is a positive relationship between knowledge with critical thinking, there is a positive relationship between experience with critical thinking and there is a positive relationship between knowledge and experience, together with critical thinking. Thus, it is suggested that the results of this research can be used to develop the critical thinking of students more and more, this research needs to be followed up by new research by adding the another variables that can be addedto studetns' critical thinking.

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