EFL Students' Critical Thinking Skills: The Perceptions of SMA IT Wahdah Islamiyah Makassar Teachers and Students

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Abstract

This study aimed to find out the perceptions of SMA IT Wahdah Islamiyah Makassar's Teachers and Students about Critical Thinking in the learning process. The researcher used a qualitative method. The population of this research are 120 students from four classes, which are XI IPA 3, XI IPA 2, XII IPA 3 and XI IPS 2 in academic year 2020-2021, also 2 English teachers at SMA IT Wahdah Islamiyah. The sample for this research is 39 students that were selected purposively by filling out questionnaires and providing opinions and examples of critical thinking that they know, so that the results of the questionnaire can be used to see their basic knowledge about critical thinking, it is intended that the sample who conducts an interview has an idea or basic knowledge about critical thinking. This study use interview to support the research and technique of data analysis by Miles and Huberman. The result of data analysis showed that English teachers' perceptions about critical thinking is that critical thinking are the ability to make a summary, give opinion, evaluate the information and also the ability to think rationally about what to do/believe the information/ideas. While students' perceptions about critical thinking are that critical thinking are thinking logically, confirming, and validating the correctness of an information, and the ability to solve a problem. Teachers' perceptions of students' ability to think critically can be seen from the activities that occur in the classroom and factors that become problems for students in thinking critically in the classroom. Students' perceptions of their ability to think critically can be seen from their role in applying critical thinking in the classroom. Teachers' perceptions of their role in integrating critical thinking in the lesson is encouraging students to make questions or give conclusions from the material that provided by the teacher. Students' perceptions of their role in integrating critical thinking in the lesson can be seen from two categories, such as the problem that the students faced when they are trying to think critically in the classroom and the classroom situation. The statements above are supported by the results of in-depth interviews through focus group discussion.

Keywords: *Critical Thinking, Perceptions, Teachers, Students*

1. Introduction

The current education in Indonesia runs the 2013 curriculum with the expectation of a better implementation on the learning process at schools. Teachers are the leaders to change people's mindset on the learning strategies which is previously known to be teacher-centered to the new one, a student-centered strategy. As a result, a creative and

innovative teacher is in constant need. These attributes can be shaped through the implementation of critical and creative thinking on the students' learning. One of the ways is by empowering students with high-level thinking. The 2013 curriculum adopts the Revised Bloom taxonomy by Anderson starting from the alert, understanding, implementing, analyzing, and creating levels because the 2013 curriculum must be at the level of creation, students must continue to develop to produce something new.

Studies related to critical thinking conducted by Choy and Cheah (2009) found that teachers believed they already taught their students critical thinking. They understood it impacts on the students which could intellectually encourage and stimulate students' learning process. They concluded that one indicator which can show the students understood this high-level thinking was if they were able to explain something on their own. However, this perception still needs to be questioned for its correctness because critical thinking by expressing opinions using one's own words cannot be used as a benchmark or an indication of critical thinking, but it may be a process of understanding the material they are learning. The purpose of this study is to determine the students' and the teachers' perceptions regarding critical thinking while teaching or learning. According to Hader (2005) critical thinking can help you to be more creative and to improve your time management.

Critical thinking offers students the ability to think logically and the skill to solve problems in real life. The more insightful understanding that comes with critical thinking will make you be more objective, calm, and respectful to someone else' viewpoint and opinion; your confidence will grow to express your original idea about that weigh on some concern both of learning and thinking are concepts that support and achieve one another.

The main research questions underpinning this study were:
   a. What are SMA IT Wahdah Islamiyah teachers' and students' perceptions of critical thinking?
   b. What are SMA IT Wahdah Islamiyah teachers' perceptions of students' ability to think critically?
   c. What are SMA IT Wahdah Islamiyah students' perceptions of their ability to think critically?
   d. What are SMA IT Wahdah Islamiyah teachers' perceptions of role they have to play when incorporating critical thinking in their lesson?
   e. What are SMA IT Wahdah Islamiyah students' perceptions of role they have to play when incorporating critical thinking in the lesson?

The finding of this study will give descriptive account in terms of teachers and students perception critical thinking in senior high school.

2. Literature Review

According to Choy and Cheah (2009) critical thinking is a process of understanding information and knowledge which involves analysis, evaluation, and synthesis. In the most basic expression, critical thinking will be appearing when someone try to analyze, evaluate, interpret, or synthesize data and apply innovative idea to build an argument,

find a solution, or conclude an information/data. Educators use critical thinking as a term to illustrate learning, thought, and analysis going beyond the memorization and recalling of information and facts.

Wade (1995) mentioned that critical thinking has eight characteristics. They are asking questions, defining problems, examining evidence, analyzing assumptions and biases, avoiding emotional reasoning, avoiding oversimplification, considering other interpretations, and tolerating ambiguity. Critical thinking skills are very important, even those who are not students, is that individuals are faced in modern life with various problems to be solved and decisions to be made where many institutions provide information related to that decision (Dorner, 1996; Stein et al, 2010)

According to Moon (2008), introducing challenges to formal education is the key to critical thinking. Moon (2008) further stated that the classroom should be used as a place to explore ideas, rather than just transferring knowledge. This means that a teacher should play more of a role as a custodian and promoter of a classroom atmosphere that can develop students' critical thinking skills. The creation of a challenging classroom atmosphere is of course closely related to the teaching method chosen by the teacher.

Besides teachers, students also have role in incorporating their critical thinking skill in classroom, for example they participate in activities in class, such as responding to other people's arguments, because a critical

thinker reviews the components of one's argument and the process of its formation, the quality of the conclusions and the process for obtaining them, but this must be based on the correct data.

3. Research Methodology

This research uses qualitative research. Researchers ask teachers' perceptions of students' critical thinking during the teaching and learning process and students' perceptions of themselves during the learning process.

This study carried out at SMA IT Wahdah Islamiyah Makassar in academic year 2020-2021. The research population are 120 students at the second and the third grade that have been filling out the questionnaire and 2 English teachers of SMA IT Wahdah Islamiyah. The sample of this research use a purposive sampling which means the purposive sampling technique is a type of non-probability sampling that is most effective when one needs to study a certain cultural domain with knowledgeable experts within, samples or informants were selected purposively whom has the tendency of the criteria of critical thinking based on the result of the questionnaire. This study focuses on EFL students. The researcher interview 39 students and 2 the English teachers at SMA IT Wahdah Islamiyah.

Before conducting the interview, the researcher provided statements to students to find out their understanding of critical thinking by filling out a questionnaire and

express their opinions about definitions and examples of critical thinking.

3. 1. Questionnaire

Questionnaire consists of numbers of questions or statements to answer by participants. It is one of the techniques of collecting data in a research (Sugiyono (2008: 142).

The researcher decided to focus on the general activities of critical thinker according by Wade (1995), which is in line with the definition of critical thinking given by Choy and Cheah (2009).

The results of these questionnaire are used to see students who tend to think critically. Their opinion on the definition of critical thinking and the example of critical thinking that they know can be evidence related to their knowledge of critical thinking.

The questionnaire was carried out with the aim of avoiding samples that did not understand what critical thinking is. So that the research sample already has the knowledge or ideas to answer the interview questions that have been provided.

3. 2. Interview

This study use interview to support the research. Interview is a direct interaction between a researcher and a participant where the participant conveys information to the interviewer (Creswell, 2012). In line with this research interview is a process of question and answer about something to find out someone's perception, therefore in this study interviews were conducted to find out

the teachers and students perception on critical thinking in EFL learning. In order to collect data, the researcher used interview. This instrument used to obtain the depth and rational data and the answer to the research questions in the problem statement.

3. 3. In-depth interview

Jonhson (2002) in Brounèus (2011) suggested to use in-depth interview with other methods in collecting research data because this method is not common to use it as the single source. To strengthen the data, the researcher conducted in depth interview with a span of 5 months after the first interview. In depth interview was conducted to discuss more deeply about critical thinking in focus group discussion. It is consist with 10 students and 1 teacher through offline with the aims to discuss more deeply about critical thinking that has been asked during the previous interview. The data analysis technique that was used Miles and Huberman's Data Analysis.

4. Findings and Discussions

4. 1. Findings

The findings cover the result of the questionnaire that were made to find the appropriate sample, the result of interview which was used to answer the questions based on the research problems, and the result of in-depth interview were used as the evidences. Before conducting interviews, 120 students at SMA IT Wahdah Islamiyah who became the population in this study filled out the questionnaire provided by the researcher.
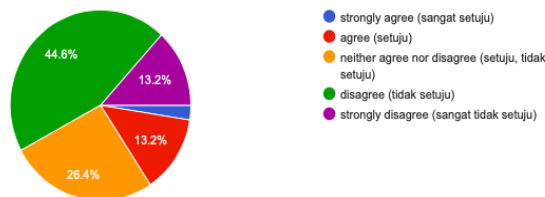
The results of the questionnaire are used to see who has preference to and knowledge of critical thinking. After filling out the questionnaire, students also wrote down definitions and examples of critical thinking they knew. There were 11 statements of critical thinking about a person's nature when in a situation, so that students who filled out the questionnaire could choose to agree or disagree.

The results of the questionnaire were measured based on the general activities of critical thinker. Wade (1995) mentioned that critical thinking has eight characteristics. Critical thinking involves asking questions, defining problems, examining evidence, analyzing assumptions and biases, avoiding emotional reasoning, avoiding oversimplification, considering other interpretations, and tolerating ambiguity. According to Choy and Cheah (2009) critical thinking is a process of understanding information and knowledge which involves analysis, evaluation, and synthesis. In the most basic expression, critical thinking will be appearing when someone try to analyze, evaluate, interpret, or synthesize data and apply creative idea to build an argument, find a solution, or conclude an information/data.

When I encounter a matter, I consider it with prejudice without thinking. (Ketika saya menemukan suatu masalah, saya menganggapnya dengan prasangka tanpa berpikir.)

121 responses

- strongly agree (sangat setuju)
- agree (setuju)
- neither agree nor disagree (setuju, tidak setuju)
- disagree (tidak setuju)
- strongly disagree (sangat tidak setuju)

The first statement showed that 54 students disagree, 16 students strongly disagree, 3 students are strongly agree, 16 students agree, and 32 neither agree nor disagree.

When I encounter a matter, I realise whether the subject is from first hand or second hand. (Ketika saya menemukan suatu masalah, saya menyadari apakah masalah yang saya temukan itu dari orang pertama atau orang kedua.)

121 responses

- strongly agree (sangat setuju)
- agree (setuju)
- neither agree nor disagree (setuju, tidak setuju)
- disagree (tidak setuju)
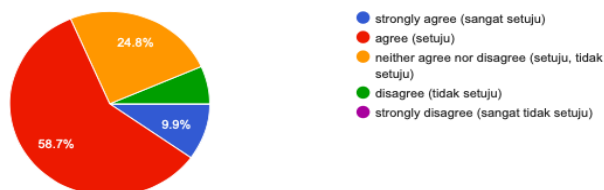- strongly disagree (sangat tidak setuju)

The second statement showed that 11 students disagree, 2 students strongly disagree, 6 students strongly agree, 56 students agree, and 46 neither agree nor disagree.

When I read a matter, I can understand the main idea and intention of the writer. (Ketika saya membaca suatu materi, saya dapat memahami gagasan utama dan maksud penulis.)
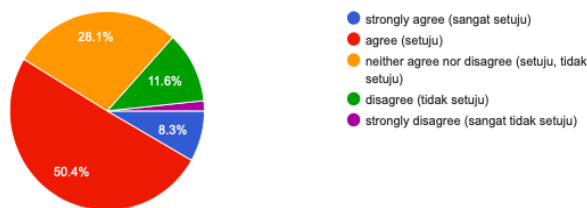
121 responses

- strongly agree (sangat setuju)
- agree (setuju)
- neither agree nor disagree (setuju, tidak setuju)
- disagree (tidak setuju)
- strongly disagree (sangat tidak setuju)

24.8%
58.7%
9.9%

The third statement showed that 12 students disagree, 0 student strongly disagree, 14 students strongly agree, 71 students agree, and 30 students neither agree nor disagree.

I can explain my thoughts regarding a matter convincingly and logically. (Saya dapat menjelaskan pemikiran saya tentang suatu masalah secara meyakinkan dan logis.)
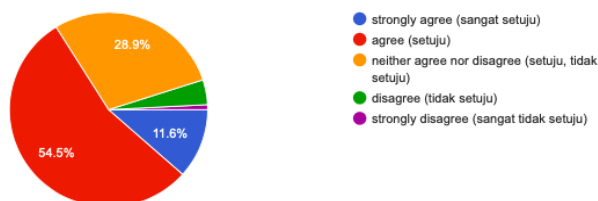
121 responses

- strongly agree (sangat setuju)
- agree (setuju)
- neither agree nor disagree (setuju, tidak setuju)
- disagree (tidak setuju)
- strongly disagree (sangat tidak setuju)

28.1%
11.6%
8.3%
50.4%

The fourth statement showed that 14 students disagree, 2 students strongly disagree, 10 students strongly agree, 61 students agree, and 34 students neither agree nor disagree.

When I encounter a matter, I can Express my thoughts regarding matter and I can defend my opnions. (Ketika saya menemukan suatu masalah, saya dapat mengungkapkan pikiran saya tentang masalah tersebut dan saya dapat mempertahankan pendapat saya.)
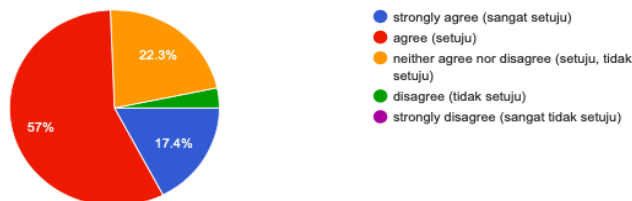
121 responses

- strongly agree (sangat setuju)
- agree (setuju)
- neither agree nor disagree (setuju, tidak setuju)
- disagree (tidak setuju)
- strongly disagree (sangat tidak setuju)

28.9%
11.6%
54.5%

The fifth statement showed that 5 students disagree, 1 student strongly disagrees, 14 students strongly agree, 66 students agree, and 35 students neither agree nor disagree.

While a matter is explained, I can concentrate on the matter together with my thoughts. (Saat suatu masalah dijelaskan, saya dapat berkonsentrasi pada masalah tersebut dan menghubungkannya pikiran saya.)
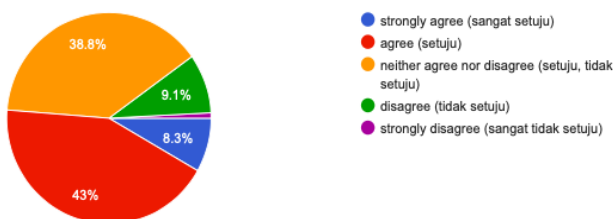
121 responses

- strongly agree (sangat setuju)
- agree (setuju)
- neither agree nor disagree (setuju, tidak setuju)
- disagree (tidak setuju)
- strongly disagree (sangat tidak setuju)

The sixth statement showed that 4 students disagree, 0 student strongly disagree, 21 students strongly agree, 69 students agree, and 27 students neither agree nor disagree.

When I encounter a matter, I can think critically, reasoningly and analytically. (Ketika saya menghadapi suatu masalah, saya bisa berpikir kritis, bernalar dan analitis.)

121 responses

- strongly agree (sangat setuju)
- agree (setuju)
- neither agree nor disagree (setuju, tidak setuju)
- disagree (tidak setuju)
- strongly disagree (sangat tidak setuju)

The seventh statement showed that there are 11 students disagree, 1 student strongly disagrees, 10 students strongly agree, 52 students agree, and 47 students neither agree nor disagree.

When I encounter a matter or an action, my thoughts do not misguide me. (Ketika saya menghadapi suatu masalah atau tindakan, pikiran saya tidak menyesatkan saya.)

121 responses

- strongly agree (sangat setuju)
- agree (setuju)
- neither agree nor disagree (setuju, tidak setuju)
- disagree (tidak setuju)
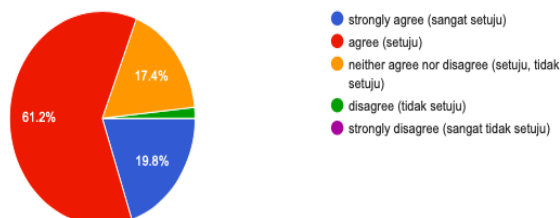- strongly disagree (sangat tidak setuju)

The eighth statement showed that there are 18 students disagree, 0 student is strongly disagree, 3 students are strongly agree, 48 students are agree, and 52 students are neither agree nor disagree.

By means of my thoughts, I can make comments and can judge the matters. (Melalui pikiran saya, saya dapat berkomentar dan menilai masalah.)
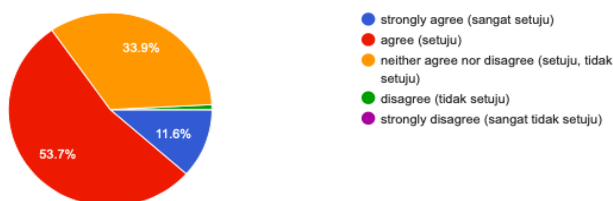
121 responses

- strongly agree (sangat setuju)
- agree (setuju)
- neither agree nor disagree (setuju, tidak setuju)
- disagree (tidak setuju)
- strongly disagree (sangat tidak setuju)

17.4%
61.2%
19.8%

The ninth statement showed that 2 students disagree, 0 student strongly disagrees, 24 students strongly agree, 74 students agree, and 21 students neither agree nor disagree.

When I encounter a problem, I can solve it, and make deductions. (Ketika saya menemui masalah, saya bisa menyelesaikannya, dan membuat alasan yang logis.)
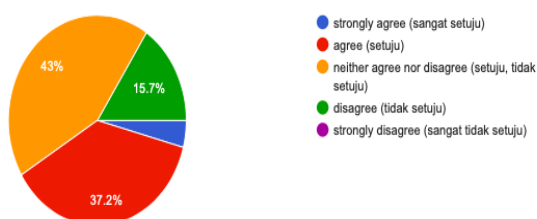
121 responses

- strongly agree (sangat setuju)
- agree (setuju)
- neither agree nor disagree (setuju, tidak setuju)
- disagree (tidak setuju)
- strongly disagree (sangat tidak setuju)

33.9%
53.7%
11.6%

The tenth statement showed that 1 student disagrees, 0 student strongly disagrees, 14 students strongly agree, 65 students agree, and 41 students neither agree nor disagree.

I can detect the problems in a matter, explain and define them. (Saya dapat mendeteksi masalah dalam suatu masalah, menjelaskan dan mendefinisikannya.)

121 responses

- strongly agree (sangat setuju)
- agree (setuju)
- neither agree nor disagree (setuju, tidak setuju)
- disagree (tidak setuju)
- strongly disagree (sangat tidak setuju)

43%
15.7%
37.2%

The eleventh statement showed that 19 students disagree, 0 student strongly disagrees, 5 students strongly agree, 45 students agree, and 52 students neither agree nor disagree.

The researcher provides a place for students to give their opinions on the definition and examples of critical thinking so that it can strengthen the results of the questionnaires that they have filled out. This is strengthened by the following extracts:

"...sebuah tindakan menanggapi informasi yang diterima namun dengan pertimbangan setuju atau tidak, contohnya ketika mendapatkan informasi dari seseorang, dipastikan kebenarannya apakah informasi tersebut benar atau tidak." (… an act of responding to information received but with consideration of agreeing or not, for example when getting information from someone, ascertaining whether the information is true or not). (HR: 13/01/2021).

"...berpikir dalam keadaan pikiran yang jernih tanpa dipengaruhi oleh suasana hati. pemikiran ini harus dipertimbangkan dalam semua sisi atau aspek. Misalnya, bisa membedakan mana yang fakta dan mana yang opini." (…think in a clear state of mind without being influenced by mood. this thought must be considered in all sides or aspects. For example, it can distinguish which are facts and which are opinions.) (ARG XI IPA 2: 13/01/2021).

39 out of 120 students filled out the questionnaire with the result that they had a tendency to critical thinking and was strengthened by the definitions and examples that they wrote after filling out the questionnaire.

This observation was carried out with the aim of avoiding samples that did not understand what critical thinking is, so the observations had to be carried out. So that the research sample already has the knowledge or ideas to answer the interview questions that have been provided.

After making observations, interviews were conducted to answer the questions in the research questions.

4. 1. 1. SMA IT Wahdah Islamiyah teachers' and students' perceptions of critical thinking

Based on the interview I found that the teachers' perceptions about critical thinking are :

a. critical thinking is the ability to make a summary, give opinion, evaluate the information.

The first category of question number one showed that 1 of 2 (50%) teacher perceive that critical thinking is students' ability to make summary, give opinion and evaluate the information. This is strengthened by the following extract:
"…is the ability of student to think critically when they get, they can make summary, give opinion, or evaluate it." (AESS : 19/5/2021)

b. the ability to think rationally about what to believe from the information.

The second category of question number one showed that 1 of 2 (50%) teacher perceive that critical thinking is the ability to think rationally about what to believe from given information. This is strengthened by the following extract:

"…is the ability to think rationally about what to believe from the informations" (SN: 20/5/2021).

Based on the interview I found that the students' perceptions about critical thinking are:

a. critical thinking is thinking logically.

The first category of question number one showed that 10 of 39 (25,6%) students perceive that critical thinking is thinking logically. This is strengthened by the following extracts:

"...adalah pemikiran yang agak sulit untuk diucapkan, pikiran lebih logis dan kita disuruh untuk berpikir keras..." (is a rather difficult thought to pronounce, the mind is more logical, and we are told to think hard) (AD XI IPA 3 : 13/2/2021).

b. confirming and validating the correctness of an information.

The second category of question number one showed that 16 of 39 (41%) students perceive that critical thinking is confirming and validating the correctness of an information. This is strengthened by the following extracts:

"...respon terhadap suatu informasi yang didapatkan apakah informasi itu benar atau tidak..." (response to information obtained whether the information is true or not) (L XI IPA 3: 13/2/2021).

c. the ability to solve a problem.

The third category of question number one showed that 2 of 39 (5%) students perceive

that critical thinking is the ability to solve a problem. This is strengthened by the following extracts:

"cara untuk mencari penyelesaian dari sebuah masalah." (a way to find a solution to a problem." (RM: 25/2/2021).

4. 1. 2. SMA IT Wahdah Islamiyah teachers' perceptions of students' ability to think critically

Based on the interview I found that the teachers' perceptions of students' ability to think critically can be seen from the activities that occur in the classroom. This is strengthened by the following extracts:

"…in the twelve grade, there is material "Discussion text", the purpose of the material is the student be able to give their opinion and discuss the topic together…" (SN: 20/5/2021).

According to the teacher, there are several factors that become problems for students in thinking critically in the classroom. This is strengthened by the following extracts:

"They don't have self-confidence and never try to express their opinion, just wait the teacher to explain it" (SN: 20/5/2021).

"…problem are like lack of vocabulary, and the lower ability to express their opinion." (AESS: 19/5/2021)

Some of the students also have an interest in a particular subject. So that some students enjoy the lesson when they like it. This is strengthened by the following extract:

"…some students enjoy it and some of them not. Some students enjoy it because they have good ability in English." (AESS: 19/5/2021).

"Some of them are enjoy, because they are interested in English." (SN: 20/5/2021)

4. 1. 3. SMA IT Wahdah Islamiyah students' perceptions of their ability to think critically

Based on the interview the students' perceptions of their ability to think critically can be seen from their role in applying critical thinking in the classroom such as:

a. the learning process

The first category of question number three showed that 15 of 39 (38%) students perceive that role of critical thinking that play in their classroom is the learning process. This is strengthened by the following extracts:

"…dalam proses pembelajaran guru memberikan tugas ke murid-muridnya…[murid] mulai berpikir sesuai dengan materi apa yang dia pahami…" (In the learning process the teacher gives assignments to the students… [students] begin to think in accordance with what material they understand) (AM: 17/2/2021).

"Pada saat pembelajaran" (In the learning process) (ASN: 12/2/2021).

b. the question-and-answer section

The second category of question number three showed that 8 of 39 (20,5%) students

perceive that role of critical thinking that play in their classroom is the question-and-answer section. This is strengthened by the following extracts:

"…[siswa] dikasih pertanyaan oleh guru dan kita menjawabnya dengan berpikir keras…" ([students] being given a question by the teacher and we answer it with think hardly). (AD: 13/2/2021).

c. the group discussion

The third category of question number three showed that 14 of 39 (36%) students perceive that role of critical thinking that play in their classroom is the group discussion. This is strengthened by the following extracts:

"…dalam kerja kelompok biasanya anggota kelompok memiliki pendapat yang berbeda-beda, misalnya ia sudah mendapatkan jawaban namun hal itu belum bisa dipastikan apakah jawaban tersebut sudah benar atau tidak namun dia sudah menulisnya di buku tulis…" (In group work, group members usually have different opinions, for example someone has already found an answer, but it is not certain whether the answer is correct or not, but that person has written it in a notebook). (H XI IPA 3: 12/2/2021).

"…saat kerja kelompok…" (while working in the group) (AN XI IPS: 17/2/2021).

d. concluding learning material

The fourth category of question number three showed that 3 of 39 (7,7%) students

perceive that role of critical thinking that play in their classroom is concluding the learning material. This is strengthened by the following extracts:

"...saat pelajaran yang diperlukan untuk mengeluarkan pendapat masing-masing." (the lessons needed to put out each other's opinions). (AF: 13/2/2021).

"...memberikan kesimpulan atau bertanya mengenai materi tersebut…" (give conclusions or ask questions about the material) (WH: 13/2/2021).

e. looking for a solution to a problem.

The fifth category of question number three showed that 3 of 39 (8%) students perceive that role of critical thinking that play in their classroom is looking for a solution to a problem. This is strengthened by the following extracts:
"...membicarakan masalah yang ada di kelas dan mencari solusinya." (discuss problems in class and find solutions). (AA: 25/2/2021).

In addition, there were 5 of 39 (13%) students who perceive their perceptions in sentences that were not complete and did not relate to the questions that has been given. This is strengthened by the following extracts:

"Mendengarkan informasi yang diberikan guru" (Listen to the information provided by the teacher). (MA: 25/2/2021).

"...peran yang dimainkan oleh pemikiran kritis adalah guru dan siswa." (the roles that played by critical thinking are teacher and student). (NI: 17/2/2021).

Based on the interview I found that 97,2% students perceive that critical thinking exists in their classroom.

4. 1. 4. SMA IT Wahdah Islamiyah teachers' perceptions of role they have to play when incorporating critical thinking in their lesson

Based on the interview the teachers' perceptions of their role in integrating critical thinking in the class can be seen from the results of the interview. This is strengthened by the following extracts:

"By encouraging students to their statement or summary to the topic. Such as, providing a topic, asking students' perception "pro or cont.", asking student to make point based on their choice, asking student to improve their point into paragraph, and asking student to tell/discuss their opinion "pro or contra." (AESS: 19/5/2021).

"Sometimes, I give a chance the student to tell "what the meaning" or "what do you know about..." before I explain the material or student make a conclusion from the material that I have given" (SN : 20/5/2021).

4. 1. 5. SMA IT Wahdah Islamiyah students' perceptions of the role that they have to play when incorporating critical thinking in the lesson

Based on the interview the students' perceptions of the role they have in integrating critical thinking to the lesson can be seen from two categories which is taken from the results of the interview, such as:

a. The problem that the students faced when they are trying to think critically in the classroom

The first category of question number five showed that students' perception of their role is related to the problems they faced in class. This is strengthened by the following extracts:

"Kurang memahami materi atau informasi membuat saya sulit untuk menganalisa dan menggali lebih dalam mengenai informasi/materi tersebut sehingga saya kurang dapat berpikir kritis." (Lack of understanding of the material or information made it difficult for me to analyse the information / material so that I could not think critically". (LH: 14/2/2021).

b. The classroom situation

The second category of question number five showed students' perception of their role in integrating critical thinking in the lesson is related to the situation in the classroom. This is strengthened by the following extracts:

"Kurang menyenangkan, karena kurangnya pengaplikasian/praktek…" (Not fun, because of lack of application/ practice). (AF: 13/2/2021)

"…kalau misalnya pelajaran tersebut bukan sesuatu yang kusukai tapi pembawaan dari gurunya menarik, saya akan menyenangi

pelajaran tersebut." (If for example the lesson is not something I like but the teacher's disposition is interesting, I will enjoy the lesson). (WH: 13/2/2021).

In- depth Interview

In- depth interview was conducted in the form of a focus group discussion consisting of 10 students and 1 teacher. This activity was carried out to discuss deeply about critical thinking and support the result of this research.

Based on the result in focus group discussion on students I found that:

1) The first result is the students perceive that when they get information, they look for the truth by looking for the same information in other sources, such as the internet or asking other people. This is strengthened by the following extracts:
"…kalau saya pribadi mendapatkan suatu masalah kucari [saya] cari dulu kebenarannya. Tidak langsung percaya setiap apa yang diberitahukan oleh orang, karena menurutku [saya] informasi tidak semuanya benar…" (if I personally, when I faced or have a problem, I look for find the truth first. I don't immediately believe everything that people tell me, because I don't think all the information is true). (HR: 8/7/2021).

2) The second result is the students perceive that they try to find out the source of the news or information that they get so they do not easily believe the information that is spread, some students also look for the truth of the information when they feel

curious about it. This is strengthened by the following extracts:

"...untuk memastikan apakah berita tersebut sudah benar atau tidak saya mencari tahu terlebih dahulu sumbernya dari mana, karena biasanya jika sumbernya tidak jelas berita tersebut tidak benar-benar terjadi dan hanya bertujuan untuk menakuti orang lain..." (To make sure whether the information is true or not, first, I find out where the source comes from, because usually if the source is not clear the news doesn't really happen and only aims to scare other people). (AF: 8/7/2021).

3) The third result is the students perceive that when they get information that is not in line with their opinion, some students sometimes dare to express opinions but sometimes they also do not dare to share their opinions, it depends on the conditions that occur. This is strengthened by the following extracts:

"...kalau mendukungji suasana sekitarku pasti kusampaikanji [saya mengemukakan] pendapatku [pendapat saya], tapi kalau suasana tidak mendukung takutka juga [saya takut] dan malu." (If the atmosphere around me support, I will definitely convey [I express] my opinion [my opinion], but if the atmosphere doesn't support me, I will also be afraid [I am afraid] and embarrassed). (AF: 8/7/2021).

4) The fourth result is the students perceive that when they face problem, they look for a solution to the problem by analyzing as much as they can so that they can conclude the information with the correct

result. This is strengthened by the following extracts:

"...beberapa masalah akan saya hadapi dan tanggapi dari berbagai aspek, terutama masalah yang menyangkut orang banyak. Tapi ada masalahnya yang terkadang cukup untuk kuterima saja [saya terima]." (Some problems I faced and respond from various aspects, especially problems involving many people. But there is a problem that sometimes it is enough for me to just accept [I accept]). (KK: 8/7/2021).

5) The fifth result is the students perceive that critical thinking is important to apply in the learning process so that students can be more active in participating in classroom activities, for example expressing opinions, answering questions, concluding learning, and not easily trusting information whose sources are not clear. This is strengthened by following extracts:

"...sangat penting, karena di dalam kelas kita seharusnya aktif bertanya atau menjawab pertanyaan dan biasa juga kita harus menjelaskan suatu materi pelajaran." (very important, because in class we should actively ask or answer questions and we usually have to explain a material). (AF: 8/7/2021).

6) The sixth result is the students perceive that critical thinking activities that occur in the classroom are group work, finding or main ideas from a reading, question-and-answer sessions, giving opinions,

looking for solutions to a problem. This is strength with the following extracts:

"...sesi tanya jawab, memberikan pendapat pada suatu masalah dan mencari solusi..." (questions-and-answers sessions). (LHN 8/7/2021).

Based on the result in focus group discussion on teacher I found that:

1) The first result is the teacher perceives that when she gets the information, she immediately questioned the source of the information, she asked again the truth of the information from other people. This is strengthened by the following extract:

"...tidak langsung percaya, contohnya ada informasi yang saya dengar, biasanya saya bertanya darimana informasi tersebut, apakah itu benar atau tidak..." (I don't immediately believe it, for example there is information that I heard, usually I ask where the information came from, is it true or not). (SN 8/7/2021).

2) The second result is the teacher perceives that when she gets information sometimes, she just listens but sometimes when the information is something important, she looks for the truth of the information. This is strengthened by the following extract:

"...saya mendengarkan saja, tapi jika berita atau informasi tersebut sedang booming atau penting biasanya baru saya mempertanyakan kembali dari mana sumber beritanya." (I just listen, but if the news or information is booming or important, I

usually just ask where the information comes from). (SN: 8/7/2021).

3) The third result is the teacher perceives that when she gets information that is not in line with her opinion, she expresses her opinion with the reasons that she has based on the truth that she knows. This is strengthened by the following extract:

"...iya saya mempertahankan atau mengemukakan pendapat saya dengan alasan yang saya tahu, dan setelah saya mengemukakan pendapat saya biasanya kita berdiskusi untuk mencari kesimpulannya, apakah saya pendapat saya kurang tepat atau sesuai." (Yes, I defend or express my opinion with the reasons that I know or believe, and after I express my opinion we usually discuss to find a conclusion, whether my opinion is right or not). (SN: 8/7/2021).

4) The fourth result is the teacher perceives that when she gets a problem and looks for a solution, she considers the aspects that she can reach, even though it is not the whole important aspect. This is strengthened by the following extract:

"...iya saya mencari solusinya jika ada masalah karena akan berlarut jika tidak mencari solusi secara langsung, tapi tidak perlu melihat dari semua aspek. Biasanya saya hanya mencari atau melihat sudut pandang dari 3 atau 4 orang..." (Yes, I look for a solution if there is a problem, because it will become another problem if I don't look for a solution directly, but there is no need to look at all aspects. Usually, I only seek or see the point of view of 3 or 4 people).

5) The fifth result is the teacher perceives that critical thinking is significant because it will make students active during the learning process, students are more diligent in finding out new information, and finding solutions to problems. This is strengthened by the following extract:

"...penting, karena kita [guru] mengajak anak-anak [murid] untuk aktif, dan memberikan mereka [murid] kesempatan mencari tahu sendiri tentang suatu informasi, mengemukakan pendapat mereka. Karena berpikir kritis bisa membantu siswa untuk lebih banyak membaca, bertanya jika mereka tidak mengerti dan mereka juga bisa berlatih untuk mencari solusi untuk masalah yang terjadi dikelas." (Yes, it is important, because we [teachers] let students to be active, and give them [students] the opportunity to find out on their own about an information, express their opinion. Because, critical thinking can help students to read more, ask questions if they don't understand and they can also practice to find solutions to problems that occur in class). (SN: 8/7/2021).

6) The sixth result is the teacher perceives that student implemented critical thinking by doing question and answer between students and teachers, conclude a learning material, and find a solution to a problem. This is strengthened by the following extract:

"...dalam satu pertemuan atau pembahasan saya tidak langsung memberitahukan siswa tentang materi tersebut, saya pancing dulu seperti "pernah dengar tidak tentang kalimat ini atau kata atau judul ini?", setelah dia [murid] jawab, saya tanya lagi "dengar atau tahu darimana?", setelah kami [siswa dan guru] berdiskusi baru lah saya mulai untuk memberitahu materi dasarnya...biasa juga saya biarkan dulu mereka untuk berpikir sendiri dan mengemukakan pendapat atau jawaban mereka..." (When in the class I didn't immediately tell the students about the material, I asked them about "Have you ever heard about this sentence or this word or title?", after she [the student] answered, I asked again "from where?" after we [students and teachers] had a discussion, I started to explain the basic material... but usually I just let them think for themselves and express their opinion or answer..." (SN: 8/7/2021).

4. 2. Discussions

4. 2. 1. SMA IT Wahdah Islamiyah teachers' and students' perceptions of critical thinking

From the results based on interviews that have been conducted with 2 teachers, one of the teachers perceives that critical thinking is students' capability to think critically by making summary, giving opinion, or evaluating information, and the other perceives that critical thinking is the skill to think rationally about what to believe from the information. The statements above are supported by the results of the focus group discussions that have been carried out by one of the them. The teacher perceives that when she gets the information, she immediately questioned the source of the information, she asked again the truth of the information from other people. Even though it cannot be said

as critical thinking, but it can become a bridge for students to think critically. As in the research that conducted by Choy and Cheah, Black (2005) stated critical thinking demands students to examine their own thinking based on some criterias, such as clarity, accuracy, relevance, logic, and fairness. While Students' perceptions of critical thinking are an ability to think logically, also an ability when a person gets an information, he/she must not immediately accept the information without confirming and finding out whether the information is valid or not. As well as by thinking critically someone is able to find solutions well when faced with a problem. The statements above are supported by the results of the focus group discussions that have been carried out by some of the them. Students perceive that when they get information, they look for the truth by looking for the same information in other sources, such as the internet or asking other people. Moreover, the result of this research is related to Dunn., et al (2006) who found that it is critical thinking embracing analysis, synthesis, and evaluation together which is in line with the definition by Bloom; and to Johnson's (2011) who categorized critical thinking as a higher-order thinking skill for its clear and direct process in mental activities like solving problems and making. The Association of American Colleges and Universities (Hart, 2013) reports that almost all employers who took the survey (95%) agreed that someone who has or is critical thinking can convey their message in communication and find solution for complicated problems better than their undergraduate in college. Although 11 of 39 (28%) students expressed their perceptions of critical thinking in short sentences that were difficult to understand

there is 1 of 11 (2,5%) student gave an opinion that according to Riddell (2007) that words of appraisal or reflection is the same important element as the ability to analyse and reason of critical thinking. This is strengthened by the following extract:

"...menilai suatu informasi yang dia dapatkan." (apparaisal the information that he gets) (MA XI IPA 3: 25/2/2021).

4. 2. 2. SMA IT Wahdah Islamiyah teachers' perceptions of students' ability to think critically

According to the teacher, the students' ability in critical thinking can be encouraged by activities in the classroom, for example by asking their opinions according to what problems are discussed, so that students can describe their perceptions using the results of their own evaluations or analyses. The statements above are supported by the results of the focus group discussions that have been carried out by one of them. The teacher perceive that that student implemented critical thinking by doing question and answer between students and teachers, conclude a learning material, and find a solution to a problem. Although this is not in line with Sternberg and Williams (2002) in Choy and Cheah's research who noted that thinking is a natural process in human's life so that critical thinking may be unnecessary to be taught to the students. However, Nickerson (1994) argued that students need it so that they know how to think more effectively, which is more critical, coherent, and creative. So that teacher must continue to encourage students to think critically. The teacher also raised several problems that could affect students' ability to think

critically, such as the student do not have self-confident and difficult to express their opinion, just wait until the teacher explain it, also because they still lack vocabulary, so it is difficult to express their opinion and be confident. The teacher should encourage students more by giving them a sense of comfort and enjoy in a classroom, so that they can like the atmosphere and it automatically can also affect students' ability to think critically. In the line with Choy and Cheah's research cited by Williams and Burden (1997) how teachers manage their classroom influences how they interact with their students and their students learn. So, it can be said that the atmosphere in the classroom can affect students' ability to think critically.

4. 2. 3. SMA IT Wahdah Islamiyah students' perceptions of their ability to think critically

Based on the interview I found that the students' perceptions of their ability to think critically can be seen from their role in applying critical thinking in the classroom There are five categories that focus on students' perceptions about of their ability to think critically that can be seen from their role in applying critical thinking in the classroom such as in the learning process, the question-and-answer section, the group discussion, concluding learning materials, and looking for a solution to a problem. 38% students perceive that the role of critical thinking during the learning process, 20.5% students perceive that during the question-and-answer session, 36% students perceive that during the group discussions, 8%

students perceive that when concluding the learning material and 8% students perceive that when looking for a solution to a problem. The student's ability to think critically above are supported by the results of the focus group discussions that have been carried out by some of the them. Students perceive that when they get some information, they try to find out the resources of its information, so that they get so they do not easily believe the information that is spread, some students also look for the truth of the information when they feel curious about it.

These students' perception can inform and motivate the teachers to continue encourage and facilitate students to practice their critical thinking skills through the categories that have been obtained or in other ways. Supported by Mandelman (2007) predicts that failure in critical thinking at this time can occur because more and more children are growing but they tend to do activities that do not encourage someone to think critically, such as scrolling on social media, playing games, and watching TV. As a result, a teacher needs to apply this skill into her classroom because this is one of the most important skills a person has. Given that the existing curriculum in Indonesia has used the 2013 curriculum which 2013 curriculum has implemented HOTS (high order thinking skills). In line with a research by Williams and Burden (1997) how teachers manage their classroom influences how they interact with their students and their students learn. Moreover, a teacher is required to have confidence, self-efficacy, and self-esteem because they can also influence her students'

thinking. As the result, it can be concluded that almost all (97,2%) students who took the interview perceive that critical thinking has occurred in their class, as most of them mentioned the examples, such as when the teacher explained the material and students were asked to look for the same material in other resources to add their knowledge about the material, or when students ask the teacher about material that they do not understand, also when students are asked to conclude learning material, and others. All of that can be confirmed from their explanation above. The 2013 curriculum that has been implemented in the world of education in Indonesia today can influence and train students to think critically, especially if during the learning process the teacher implements high order thinking skills in the classroom, it will have a good impact on students. It is in line with Lauer (2005) who stated that critical thinking must be integrated to the learning process so that both lesson and this skill can be taught to the students.

4. 2. 4. SMA IT Wahdah Islamiyah teachers' perceptions of role they have to play when incorporating critical thinking in their lesson

I found that the teachers' perceptions of their role in integrating critical thinking to the lesson can be applied by, providing a topic, asking students' perception to agree or disagree, asking student to make point based on their choice, asking student to improve their point into paragraph, and asking student to tell/discuss their opinion. The statements above are supported by the results of the focus group discussions that have been carried out by one of the them. The teacher perceives that critical thinking is important

because it will make students active in the learning process, students are more diligent in finding out new information, and finding solutions to problems. So that the teacher applied critical thinking by doing question and answer between students and teachers, conclude a learning material, and find a solution to a problem.

4. 2. 5. SMA IT Wahdah Islamiyah students' perceptions of role they have to play when incorporating critical thinking in the lesson

The students' perceptions of their role in integrating critical thinking to the lesson depends on two factors, such as the problem that the students faced when they are trying to think critically in the classroom and the classroom situation. The statements above are supported by the results of the focus group discussions that have been carried out by some of the them. Students perceive that critical thinking is significant in the learning process so that students can be more active in participating in classroom activities, for example expressing opinions, answering questions, concluding learning, and not easily trusting information whose sources are not clear. So that they apply critical thinking in the classroom through group work, finding or main ideas from a reading, question-and-answer sessions, giving opinions, looking for solutions to a problem.

I found that students experience some problems when they are trying to think critically, for example when they want to ask the truth of information or try to find out more about the learning material, they are afraid if their friends feel uncomfortable or annoyed, also when the teacher explains the

material without asking whether the student has really understood or not. It also depends on the situation in the class, for example the teacher when explains the material by the boring way and that does not make students feel comfortable and make students do not enjoy the atmosphere in the classroom. Choy and Cheah (2009) also mentioned in their research that Duron et al. (2006) indicated that the common teaching and learning approach used in higher education possibly less encourage students' critical thinking skill.

5. Conclusions

a. Teachers' perceptions about critical thinking are that critical thinking is the ability to make a summary, give opinion, evaluate the information and also the ability to think rationally about what to do/believe the information/ideas. While students' perceptions about critical thinking are that critical thinking is thinking logically, confirming, and validating the correctness of an information, and the ability to solve a problem.

b. Teachers' perceptions of students' ability to think critically can be seen from the activities that occur in the classroom. According to the teacher, there are several factors that become problems for students in thinking critically in the classroom, for example student don't have self-confident and still lack of vocabulary. Some of the students also have an interest in a particular subject. So that some students just enjoy the lesson when they like it.

c. Students' perceptions of their ability to think critically can be seen from their role in applying critical thinking in the classroom such as in the learning process, the question-and-answer section, the group discussion, concluding learning materials, and looking for a solution to a problem. 97,2% students perceive that critical thinking happens in their classroom when they are in the learning process.

d. Teachers' perceptions of the role that they have to play when incorporating critical thinking in the lesson by encouraging students to make questions or give conclusions from the material that provided by the teacher. The teacher perceive that they give the opportunity for students to convey what they knew from the material.

e. Students' perceptions of the role that they must play when incorporating critical thinking in the lesson can be seen from two categories which is taken from the results of the interview, such as the problem that the students faced when they are trying to think critically in the classroom and the classroom situation.

The implication of this research is that considering critical thinking has been implemented in the current curriculum in Indonesia, the results of this study can be additional information for teachers to find out students' opinions about critical thinking

in the classroom, also because of the importance of critical thinking so that teachers can make the results of this study as a reference for measuring, encouraging and bridging students to develop their critical thinking skills.

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