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ВЕСТНИК

НАЦИОНАЛЬНОЙ АКАДЕМИИ НАУК
РЕСПУБЛИКИ КАЗАХСТАН

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NAS RK is pleased to announce that Bulletin of NAS RK scientific journal has been accepted for indexing in the Emerging Sources Citation Index, a new edition of Web of Science. Content in this index is under consideration by Clarivate Analytics to be accepted in the Science Citation Index Expanded, the Social Sciences Citation Index, and the Arts & Humanities Citation Index. The quality and depth of content Web of Science offers to researchers, authors, publishers, and institutions sets it apart from other research databases. The inclusion of Bulletin of NAS RK in the Emerging Sources Citation Index demonstrates our dedication to providing the most relevant and influential multidiscipline content to our community.

Қазақстан Республикасы Ұлттық ғылым академиясы "ҚР ҰҒА Хабаршысы" ғылыми журналының Web of Science-тің жаңаланған нұсқасы Emerging Sources Citation Index-те индекстелуге қабылданғанын хабарлайды. Бұл индекстелу барысында Clarivate Analytics компаниясы журналды одан әрі the Science Citation Index Expanded, the Social Sciences Citation Index және the Arts & Humanities Citation Index-ке қабылдау мәселесін қарастыруда. Web of Science зерттеушілер, авторлар, баспашылар мен мекемелерге контент тереңдігі мен сапасын ұсынады. ҚР ҰҒА Хабаршысының Emerging Sources Citation Index-ке енуі біздің қоғамдастық үшін ең өзекті және беделді мультидисциплинарлы контентке адалдығымызды білдіреді.

НАН РК сообщает, что научный журнал «Вестник НАН РК» был принят для индексирования в Emerging Sources Citation Index, обновленной версии Web of Science. Содержание в этом индексировании находится в стадии рассмотрения компанией Clarivate Analytics для дальнейшего принятия журнала в the Science Citation Index Expanded, the Social Sciences Citation Index и the Arts & Humanities Citation Index. Web of Science предлагает качество и глубину контента для исследователей, авторов, издателей и учреждений. Включение Вестника НАН РК в Emerging Sources Citation Index демонстрирует нашу приверженность к наиболее актуальному и влиятельному мультидисциплинарному контенту для нашего сообщества.

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CULTIVATING JUNIOR HIGH SCHOOL STUDENTS' CRITICAL THINKING SKILLS BY USING A SHORT-VIDEO IN ENGLISH LANGUAGE CLASSROOM

Abstract. An effective teaching method for cultivating students' critical thinking skills of Junior High School students in Indonesia is very necessary as their critical thinking ability is still low. This research is a descriptive study which aims at cultivating learners' critical thinking by using a short-video since it is believed that technology can motivate the students to learn, increase their interest, engage them to the lesson matter, provide effective learning activities, and demand them to think critically and creatively. The subjects of this study were 130 students of grade IX of State Junior High School 1 (henceforth SMP N 1) Sedayu, Yogyakarta. The students were homogeny in term of age, economic, and social background as well as in English language scores. Facione's critical thinking rubrics were used to indicate the level of students' critical thinking in terms of their interpretation, analysis, evaluation, inference, explanation, and self-regulation skill of a short-video. The average score of all items in pre-test critical thinking skills was at fair level with the score 9 out of 20. The results revealed that the students' interpretation skills were fair with the score of 9 out of 20; analytical skill was 12 out of 20; evaluation skill was 9 out of 20; self-regulation was in fair criterion with the score of 5 out of 10 and good level of explanatory's skill with the score 6 out of 10, while 12 for inferences. Thus, it can be concluded that the critical thinking skill of the students of grade IX of SMP N 1 Sedayu, Yogyakarta, was still unsatisfactory due to their fair levels. The use of a short-video as an instrument cannot improve their critical thinking skills. It is, therefore, recommended to practice more pertaining to the critical thinking for the students by using any similar instrument.

Keywords: Critical thinking, Cognitive skills, Short-videos, Junior High School, teaching method, students.

Introduction. There is an importance to manage the self-development of children and adults at additional and other levels and types of environmental education in the context of educational globalization. It is also important to develop school children's cognitive skills while they are at a young age (Kassymova, G. K.; Stepanova, G. A.; Stepanova, O. P.; Menshikov, P.V.; Arpentieva, M.R.; Merezhnikov, A. P.; Kunakovskaya, L. A., 2018; Arpentieva, M. R., Kassymova, G. K., Lavrinenko, S. V., Tyumaseva, Z. I., Valeeva, G. V., Kenzhaliyev, O. B., Triyono, M. B., Duvalina, O. N., Kosov, A. V., Dossayeva, S. K., 2019). The need for obtaining an effective teaching method for cultivating students' critical thinking skills of junior high school students in Indonesia is paramount because their critical thinking ability is still low. A research done by the Program for International Student Assessment (PISA) 2015 states that Indonesia science literacy score is 403, which is lower than Organization for Economic Co-operation and Development (hereafter OECD) namely 493. The average performance in the reading of 15-year-olds is shown 397, compared to an average of score OECD 493 (PISA, 2015). It reflects that Indonesian students' skill in answering the questions refer to critical, logical, and problem-solving skills are still insufficient. Students need to be trained during the learning process.

Kamali & Fahim (2011:2), mentioned,

> ...critical thinking is the skill to look over, against with own perspectives, and promote ideas; to argue inductively and deductively, and to reach factual or judgmental conclusions based on firm inferences drawn from clear statements of knowledge or belief.

There are some factors that affect critical thinking of Indonesian students: the language proficiency, assessment methods, motivation, the support from home, prior linguistic knowledge, learning environment, teaching strategies, comprehensible input, student personality, age, and feel comfort in their country of residence (Indah, 2016).

Several studies have been conducted to foster the Indonesian students' critical thinking (Elisanti, 2017; Haridz and Irving, 2017; Saputri, Sajidan, and Rinanto, 2018) yet the results are still unsatisfactory as the students' critical thinking were at the average level. The results of previous research have not achieved the Indonesian National Education Standards Agency (BSNP) standard that must be met in the 21st-century education process in which the students should have changed factual thinking style to the critical, and from the delivery of knowledge to the exchange of knowledge (BSNP, 2010)

For this reason, this research was done to foster students' critical thinking skills through the use of a short-video since it is believed that technology can motivate the students to learn; increase their interest; engage them to the lesson matter; provide them with effective learning activities; and involve them to think critically and creatively (Carvajal, & Paulina, 2019; Ding, Ottenbreit-Leftwich, & Glazewski, 2019; Gurbangeldiyewna, 2016; McQuiggan, McQuiggan, Sabourin, & Kosturko, 2015; Ohler, 2013; and Sulla, Bosco, & Marks, 2019).

Literature review. The idea of combining critical thinking into education was developed by Greek philosophers after World War II and strengthen by Bloom in the 1950s with his Taxonomy of Educational Objectives. The idea was gladly accepted in the 1980s. It has held the probe of time and yet there is still a deliberate need for strengthening the critical thinking skills in schools and colleges (Djiwandono, 2013). It is effortless and common by the teachers to transfer the knowledge from textbooks to the students, nevertheless, to make learners think more independently and learn from themselves beside textbooks is a great challenge/effort (Djiwandono, 2013). Combine critical thinking into education could help learners to deal with social and environmental issues (Djiwandono, 2013).

Critical" is from the Greek word "*krisis*", which means "to separate". Without critical thinking one might not be able to separate himself from the crisis which sucks into the damage, even he or she might block his or her pathways to success. Non-traditional thinking, grounded in traditional, logical idea, allows us to determine exactly what the crisis is and how to move out of it (Caroselli, 2009). Paul (1995) says, "Critical thinking is thinking about your thinking while you are thinking in order to make your thinking better".

According to Fahim (2010), critical thinking is learning how to ask and answer questions of analysis, synthesis, and evaluation. In detail, Facione (2015) defined the core critical thinking skills into two categories, cognitive and disposition skills.

Cognitive skills are meant being in the very core of critical thinking. It involves six skills namely: interpretation, analysis, evaluation, inference, explanation, and self-regulation. Facione (2015) explains, *interpretation* is to comprehend and express the meaning or significance of a wide variety of "experiences, situations, data, events, judgments, conventions, beliefs, rules, procedures, or criteria" (p: 15). The *categorization*, decoding significance, and clarifying meaning is considered the sub-skills of interpretation (Facione, 2015). The *analysis* is considered as an ability to identify the intended and real inferential relationships between statements, questions, concepts, descriptions, or other forms of representation. The experts infer examining ideas, detecting arguments, and analyzing arguments as sub-skills of analysis (Facione, 2015). The *evaluation* is judging about the arguments whether it is reliable and rational based on the logic and evidence given. The *inference* is the ability to identify, to decide what to believe, to draw reasonable conclusions based on strong logic, to form assumptions and hypotheses and to grasp relevant information or consequences of this decision. The experts involve querying evidence, conjecturing alternatives, and drawing conclusions as sub-skills of inference (Facione, 2015). The *explanation* is the ability to communicate and present in a cogent and coherent way. The sub-skills under clarification are describing methods and outcome, giving a reason on procedures, proposing and stand up for with good reasons one's factual and theoretical explanations of events or points of view, and come with full and well-

reasoned, arguments in the context of findings the best comprehension possible (Facione, 2015). The *self-regulation* is one's the ability to monitor his or her own thinking, being conscious in cognitive activities. Two sub-skills were defined by experts in self-regulation: self-examination and self-correction. Which means one has the ability to monitor and correct flaws in logic (Facione, 2015).

The disposition is,

> … the ideal critical thinker who is habitually curious, well-literate, trustful of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results which are as precise as the subject and the circumstances of inquiry permit (Facione, 2015:15).

The ability to think critically, however, will not ensure unless one has a strong intention and initiative to combine in the process relevant to it. In addition, besides the ability to enhance in cognitive skills, good critical thinkers need to have strong intention to identify the significance of good thinking and have the creativity to seek better judgment (Shirkhani & Fahim, 2011).

Engaging critical thinking into the language learning processes or activities is considered as one of the language teachers' innovation because the students will expand their learning experience and will learn the language meaningfully. The learners' good performance indicates that they have good critical thinking skills (Pinter, 2017). Some studies have confirmed that critical thinking skills improve EFL writing ability language proficiency, oral communication ability, and so forth (Alharbi, 2015; Hawks, Turner, Derouin, Hueckel, Leonardelli, & Oermann, 2016; Indah, 2013; Samanhudi, & Sampurna, 2010; and Shirkhani & Fahim, 2011).

Language skills cannot be separated from cognitive or critical thinking. Teaching critical thinking skills includes transferring the facts or information or concepts (Krathwohl, & Anderson, 2009). Critical thinking is focused on deciding what to believe or to do (Norris & Ennis, 1996).

Language learners who have critical thinking skills are more creative and capable than those who haven't to achieve the goals of the curriculum. Shirkhani & Fahim (2011:3) mentions,

> Learners with critical thinking skills are capable of thinking critically and creatively; capable of making decisions and solving problems; capable of using their thinking skills, and of understanding language or its contents; capable of treating thinking skills as lifelong learning; and finally they are intellectually, physically, emotionally and spiritually well-balanced.

According to Brown (1999), notwithstanding that the communicative approach cannot develop critical thinking among learners, the learners still have an ability to think critically. However, the activities that engage the learners to challenge, to solve the real-life tasks, through technology as a tool for learning, communication, and collaboration, would provide learners with occasions to view problems from a diversity of perspectives, that let the learners to cooperate and negotiate answers to the problems, and examine those answers within a real-world context (Bransford, Brown, & Cocking, 2000; and Hannafin et al. 1999 in Lee & Hannafin, 2016). It means that technology which provides real-life activities could foster the learners' 4C (collaborative, communicative, critical-thinking and creative-thinking) skills and motivate them to increase their interest and involve them to think critically and creatively.

Considering the definitions discussed above, the strategy preferred in this research to cultivate learners' critical thinking skills was - "short-videos". Short-video is a video that the longitude is less than the length of a traditional television program (Rundell, 2002) or it is unlike any other videos differ with its longitude or length. Richards, Willy, and Renandya (2002) have mentioned that video is a medium which incorporates a variety of visual elements and a sizable range of audio practices in it. The statement was supported by Salomon, Lowther, Russell, 2007) that video sections can illustrate a case or a procedure so that learners feel as though they are indeed there. Further, Harmer (2001) also marked the integration of video into the process of teaching and learning has great advantages for observing the language-in-use such as comprehension since students are able to see general meanings and moods that are conveyed through expression, gestures, and visual clues. It can be seen that video as motion pictures can deliver the messages. Solomon, as quoted in Pratiwi (2012), confirmed that videos can be arranged as effective interactive media as long as the teacher has a strategy in implementing it into the classroom. There are

some people who think that videos with a length of more than three or four minutes will lead learners to get easily bored. Consequently, short-video sequences of between one and four minutes can involve the number of cognitive exercises, (example: demonstrate the satisfying range of cognition language that can be highly motivating; engaging and keeping learners to stay focused) (Harmer, 2001).

Previous research. There have been done several studies related to this study. Hidayat, Rukmini, & Bharati (2019) conducted research on developing a problem-solving based assessment to stimulate critical thinking and creativity of students' writing skill. They developed the problem-solving writing module collaboratively with the teacher of X MIPA 6 at SMA Sultan Agung 1 Semarang in the academic year of 2017/2018. They used pre-post-tests to measure the students' writing skill, critical thinking skill, and creativity skill. They found significant improvement after implementing the designed module. The mean score of writing skill was 47.83 and improved up to 70.83, critical thinking and creativity skills were 42.67 and improved up to 60.13. The problem-solving based assessment implemented by researchers was applicable to stimulate the critical thinking and creativity of the students' writing skill.

Another research was conducted by Setyarini (2019) on critical thinking. She examined how storytelling could be used to instigate higher order thinking skills (HOTS) practices between young English learners through communicative skills and possible defies teachers might find while implementing critical thinking skills. She obtained the data through observation, interviews, and by analyzing the lesson plans. In her research open-ended questions such as, "*what"*, "*why"*, "*how"*, "*if*", "*how about"*, and "*if you were-were"* used to enable the student to practice their speaking. The purpose of using open-ended questions was to know the learners' opinion, comments, imagination (while analyzing and evaluating the story), and critics about the implemented stories in the classroom. She found that students find difficulties in creating their own stories since they had limited language competence and unaccustomedness with the story context. The students' HOTS was still in a developing position and didn't reach the highest level of creating.

In 2012 Yang and Wu conducted quasi-experimental research with senior high school students in Taiwan. They used digital story-telling to enhance student academic achievement, critical thinking, and learning motivation. The independent variable of the study was information-technology-integrated instruction (ITII) on two various levels and digital storytelling (DST) as experimental participants. Their findings indicated that DST students of experimental class performed better than those compared class students. The participants in all terms or English achievement, critical thinking, and learning motivation achieved very well.

Familiar research was conducted by Fadhillah (2017) on critical thinking. Her research under the title "Embedding critical thinking through critical reading in teaching a narrative text to junior high school students" reported whether the critical reading strategy could improve the students' critical thinking skills. The results of her research after treatment indicated that only 18 students (or 51%) made a high improvement in their critical thinking skills. The critical reading strategy was effective in fostering the students' critical thinking skills, especially using previewing, outlining and summarizing, reflecting and evaluating had a good impact. She explored the scores from the most evident to the least evident, which include mainly 1. reasoning, 2. predicting, 3. recognizing context, and 4. questioning. Consequently, 'reasoning' was the most frequent critical thinking skill performed by the students. The second common was 'predicting' where the students got the chance to relate their prior knowledge to the current one. The third 'recognizing context' where the students trained to judge the things objectively. The students met the criteria of being critical thinkers, they started being open to the new opinion and ideas. However, the research couldn't support well to achieve the students' 'questioning' ability. The students almost never asked the logical questions during the process or the asked questions were irrelevant to the study.

The study on modeling the relationship among prior English level, self-efficacy, critical thinking, and strategies in reading performance was conducted by Chou (2017) who says that critical thinking and metacognition had a positive correlation with surface preceding strategies in English reading.

Navaie, Saeedi & Khatami (2018) assumed that other variables had effects on critical thinking or they might play a role in this regard. They conducted correlational research to find out whether there was any relation between critical thinking and mindfulness of Iranian EFL learners. However, the results of their study showed that there wasn't a significant relationship between critical thinking and mindfulness and even there wasn't any interaction between the sub-constructs of critical thinking and sub-constructs of

mindfulness. They also stated that learners' critical thinking skills depended more on their own abilities in learning. Learners needed to encourage themselves to learn the language, they needed to think about the practical benefits of learning the foreign language. Researchers suggested that learning materials and activities should stimulate learners' thinking process. Teachers needed to involve, motivate and build curiosity in the students to learn things by themselves. In the learning process, teachers needed to make the learners conscious, so that they could absorb the language deliberately.

Ilyas (2018) argue that "critical thinking is almost impossible to be taught to the students in non-Western countries since Western and non-Western countries have different cultural background". The students of non-Western countries could improve their English proficiency however, they will still be at the same level in critical thinking, because the educational system has not fully supported it well.

Singh & Shaari (2019) also support that, in order to achieve the standard of High Order Thinking Skills (HOTs) of English examination papers in schools need some revisions which have become part of the new curriculum of the 21st century.

The case study was conducted by Omar & Albakri (2016) in the ESL classroom. The purpose of their study was to examine the teachers' implementation of the thinking maps promoted CT during the teaching of literature in the ESL classroom. They came up with the result that teachers could implement and engage the students to think critically using the particular strategy. The results were significant or it had a good impact on learners' critical thinking since the used strategy included powerful instruction which called the students to think differently.

Masduqi (2011) believes that students' critical thinking skills will be improved if the English lessons involve the meaning of the things the students learn. Moreover, he considers critical thinking and meaning could be implemented through collaborative activities (teacher with students). The thinking process and meaning negotiation of the students could change their point of view because when the students learn things consciously the realization could be productive. Those two important elements only could be achieved when the teachers do collaborative activities. Teachers' responsibilities were to provide the learners with adequate exposure to the thinking process and meaning negotiation.

Different studies showed different results. However, they have the implication that EFL students at Primary, Junior or Senior High School have not been able to reach a good level of critical thinking skills (Setyarini, 2019). They cannot make a reasonable decision on a particular problem as their proposed solutions have no scientific explanation or lack of logical reason (Fadhillah, 2017 and Navaie, Saeedi & Khatami, 2018). To think critically means to evaluate the correctness, the merit, and the validity of claims or arguments (Ruggiero, 2012).

Method. The most widely used at the moment are integrated lessons using multimedia tools (Kassymova, G. K., Arpentieva, M. R., Kosherbayeva, A. N., Triyono, M. B., Sangilbayev S. O., Kenzhaliyev B. K., 2019). It is considered when students possess too much information or they do not understand the video well, it will cause them stress. Under stress cognitive skills do not develop well. However, there are many stress coping methods such as the physiological, behavioral, social and psychological methods to deal with stress (to its prevention and coping). Authors (Kassymova, G. K., Kosherbayeva, A. N., Sangilbayev, O. S., Schachl, H., Cox, N., 2018; Kassymova, K. G., Tyumaseva, Z. I., Valeeva, G. V., Lavrinenko, S. V., Arpentieva, M. R., Kenzhaliyev, B. K., Kosherbayeva, A. N., Kosov, A. V., Duvalina, O.N., Dossayeva S. K., 2019) outline and suggest stress management techniques, which are easy to practice for students and teachers even during the lesson and in special activities. This research uses the rubrics of critical thinking skills (CTSs) developed by Facione (2015) to indicate the level of students' CTSs. The subjects in this study were 130 students in grade 9 (5 classes) of State Junior High School students 1 (*SMP Negeri 1*) Sedayu, Yogyakarta selected through purposive sampling technique. The data were obtained from the analysis of student answers. After coding each student's answers and scoring them, then they were categorized into several score levels excellent, good, average, fair, poor, or very poor in term of students' interpretation, analysis, evaluation, inference, explanation, and self-regulation skills. The Facione's critical thinking rubrics can be seen in table 1 and 2 as the following.

Additionally, the short-video used in this research was based on the “TED ED RIDDLES”. It was obtained from YouTube Channel along with this https://www.youtube.com/watch?v=9uZ-jeZS8d0&t=70s. The allocation time was about 03.24 minutes. The tittle of the video was in line with the given topic that was “Can you solve the jail break riddle” by Dan Finkle. The format of the video was mp.4. After all, the researchers tried out to the students for the first time without giving a pause on it.

Table 1 – Rubric for rating the critical thinking (Facione, 2015. p: 9)

Skill / category	Core critical thinking skills Experts' Consensus Description	Subskill / elements	Score
Interpretation	"To comprehend and express the meaning or significance of a wide variety of experiences, situations, data, events, judgments, conventions, beliefs, rules, procedures, or criteria"	Categorize Decode significance Clarify meaning	Excellent - 18-20 Good - 13-17 Average - 10-12 Fair - 7-9 Poor - 5-6 Very poor- 0-5
Analysis	"To identify the intended and actual inferential relationships among statements, questions, concepts, descriptions, or other forms of representation intended to express belief, judgment, experiences, reasons, information, or opinions"	Examine ideas Identify arguments Identify reasons and claims	Excellent - 18-20 Good - 13-17 Average - 10-12 Fair - 7-9 Poor - 5-6 Very poor - 0-5
Inference	"To identify and secure elements needed to draw reasonable conclusions; to form conjectures and hypotheses; to consider relevant information and to reduce the consequences flowing from data, statements, principles, evidence, judgments, beliefs, opinions, concepts, descriptions, questions, or other forms of representation"	Query evidence Conjecture alternatives Draw logically valid or justified conclusions	Excellent - 18-20 Good - 13-17 Average - 10-12 Fair - 7-9 Poor - 5-6 Very poor - 0-5
Evaluation	"To assess the credibility of statements or other representations that are accounts or descriptions of a person's perception, experience, situation, judgment, belief, or opinion; and to assess the logical strength of the actual or intended inferential relationships among statements, descriptions, questions, or other forms of representation"	Assess credibility of claims Assess quality of arguments that were made using inductive or deductive reasoning	Excellent - 18-20 Good - 13-17 Average - 10-12 Fair - 7-9 Poor - 5-6 Very poor - 0-5
Explanation	"To state and to justify that reasoning in terms of the evidential, conceptual, methodological, criteriological, and contextual considerations upon which one's results were based; and to present one's reasoning in the form of cogent arguments"	State results Justify procedures Present arguments	Excellent- 9-10 Good - 7-8 Average - 5-6 Fair - 3-4 Poor - 1-2 Very poor/Fail- 0
Self-Regulation	"Self-consciously to monitor one's cognitive activities, the elements used in those activities, and the results educed, particularly by applying skills in analysis, and evaluation to one's own inferential judgments with a view toward questioning, confirming, validating, or correcting either one's reasoning or one's results"	Self-monitor Self-correct	Excellent - 9-10 Good - 7-8 Average - 5-6 Fair - 3-4 Poor- 1-2 Very poor/Fail - 0

Table 2 – Critical Thinking category and its score

Category	Score
1. Interpretation	20
2. Analysis	20
3. Inference	20
4. Evaluation	20
5. Explanation	10
6. Self-Regulation	10
Total	**100**

Results and discussion. To cultivate students' critical thinking skills by using a short-video, the researchers used pair discussion forum in which the students work in a pair of two and keep giving and asking for opinions. Among the questions are; (1) what do you think about the video?, (2) why do you think so?, (3) what is your knowledge based upon the video?, (4) what does it implies and presuppose?, (5) what explains it, connects to it, leads from it?, (6) how are you viewing it?, (7) should it be viewed from different perspective?, and additional questions students could create by using (8) "*if*", "*how about*", and "*if you were-were*". The students have a very limited answer and most of them cannot explain the reasons.

From those questions, the students, actually, are expected to perform the 4C skills: communicative.1) by responding to the questions (they will achieve communicative skill); collaborative. 2) by working in pairs (they will collaborate); critical thinking and problem-solving. 3) by thinking about the hidden part of the shown videos (they will think critically, and will try to solve the problem logically based on their own perspectives); and creative and innovative. 4) by relating the short-video to their own life activities (they will improve their creativity and innovation to solve any kind of problem that might appear in their life activities).

After the researchers turned the video for one to four minutes with a pause in the middle or in the required minutes, the students have to guess what will happen or the students have to answer the related questions and explain it with good reason(s). After watching the whole part of the short-video, they have to start thinking critically, evaluate the problem, and try to give logical answers for the questions by connecting the video to their real life.

Students' critical thinking skills. The researcher after implementing the short-videos with junior high school students she analyzed the collected data using Facione (2015) rubric which includes six objectives of critical thinking skills, interpretation, analysis, inference, evaluation, explanation, and self-regulation. The analyzed data didn't display good results. It can be clearly seen in the following table;

Table 3 – Scoring critical thinking skills of students' based Facione (2015) cognitive skills

No	Category	Excellent (18-20)	Good (13-17)	Average (10-12)	Fair (7-9)	Poor (5-6)	Very poor (0-5)
1	Interpretation	0st / 130st	4st / 130st	10st / 130st		12st / 130st	4st / 130st
2	Analysis	2st / 130st	2st / 130st		32st / 130st	12st / 130st	4st / 130st
3	Inference	8st / 130st	24st / 130st		6st / 130st	2st / 130st	2st / 130st
4	Evaluation	2st / 130st	2st /130st	28st /130st		8st /130st	2st /130st
No	**Category**	**Excellent (9-10)**	**Good (7-8)**	**Average (5-6)**	**Fair (3-4)**	**Poor (1-2)**	**Very poor (0)**
5	Explanation	8st / 130st	26st / 130st		6st / 130st	4st / 130st	0st / 130st
6	Self-regulation	4st / 130st	4st / 130st		38st / 130st	4st / 130st	0st / 130st

st = students 2st = 1 pair / = out of

Since the researchers used the pair work in their teaching process, the data also obtained from pairs and the students' respond accepted directly based on two students' discussions. The results of their response show that they were still on average and fair levels. The majority of the students barely on in fair level performed the meaning, situations, data, events, judgments, conventions, beliefs, rules, or procedures, which are belong to the category of interpretation. Only 2 pairs from 5 classes (130 students) performed better than others. There were 5 pairs responded in average level, and the rest pairs almost couldn't respond anything or they performed poorly and very poorly.

The students watching the short-video are also asked to analyze by examining the ideas, identifying the arguments, and identifying the reasons and claims. However, they admitted that they didn't understand the narrator's speech in the video and couldn't identify what was actually going in the video. As a result, the majority of the students' response only showed the average level of critical thinking.

The same problem happened when the students were doing the evaluation. They weren't really sure with their answers and were expecting the exact answers from the instructor. They made very weak conclusions. The students respond to what they see from the video but they still were far to do the logical evaluation. Only 2 pairs could give good examples. Those students linked the played video with their life experience and it was clear that those 2 pairs had developed their thinking skills even before this treatment-video was implemented to them. They had good logical reasons with examples and the answers were suitable to the questions.

The self-regulation also was at an average level since the students mostly were learning the language using digital translators and they weren't even aware that they were making mistakes while speaking in English. However, there were many students who used the phrases ***"I mean", "how to say", "how to explain"***. That self-monitor still was accepted at an average level. Only 2-3 pairs were clearly aware of their mistakes, for example, instead of saying ***"she says that"*** they said ***"she say that", "there is"*** instead of ***"there are",*** or ***"how many"*** instead of ***"how much"***. However, they asked for apologizing by saying ***"sorry"*** and directly corrected themselves using the correct tenses and words. There were students even didn't know the meaning of the words, and they made funny answers for the questions. Some answers were unclear until they used their first language.

The next step that students needed to do were to explain, or after each short-video, they had to state the results, justify procedures, and present arguments based on their point of view. Since they got some information while doing an evaluation, it wasn't that hard for them to do an explanation later on. However, most of the students' results still showed the average level of critical thinking skills. Despite the fact, while applying the explanation step, the researchers realized that the students more preferred memorizing the information than arguing with logical viewpoints.

The same results were obtained from students' inference skill. They couldn't make logically valid or justified conclusions. The same repetition appeared in their responses to the questions. The researcher also found that most students almost never asked questions. The reasons most probably the students were shy, or indeed didn't understand the topic, or they didn't have any interest in learning the English language, or they were afraid to make mistakes while asking questions. Nevertheless, they couldn't hide how happy they were when the classes become a competitive environment. Even though they couldn't debate with logical reasons, they still supported their pairs to answer the questions well and accurate.

Overall results tell us that the students' critical thinking skills couldn't be improved significantly after gaining the video-treatment. Their critical thinking levels were still in fairly average categories. The students' critical thinking skills also presented in the form of percentages in the following chart.

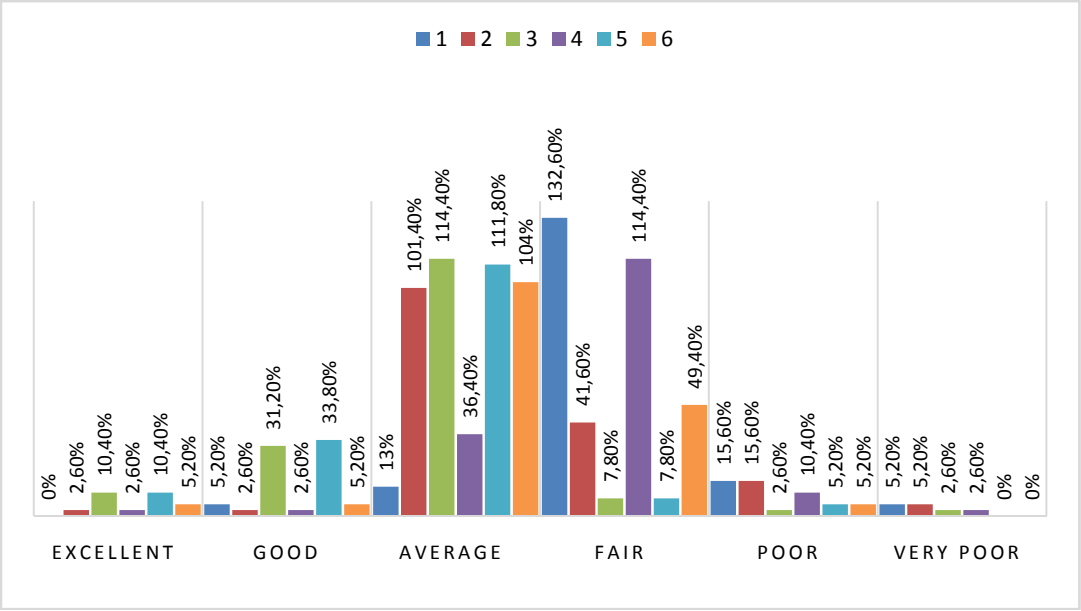

Figure 1 – The students' CT results in percentage

The findings are similar to the previous research which indicated a low level of students' critical thinking in English as Foreign Language (EFL) (Setyarini, 2019). Such low level to some extent can be affected by a lack of ideas, topic familiarity, lack of vocabularies to express the ideas, prior knowledge (Fadhillah, 2017 and Navaie, Saeedi & Khatami, 2018), or classrooms tradition which rely heavily on instructor, or the transfer of information directly from teacher to student. As mentioned by Piker & Foster (1996), those traditional ways of teaching, which involved repetition and memorization of previously taught materials did not lead the students to critical thinking.

In general, the results indicate the students' interpretation skills were fair with the score of 9 out of 20; analytical skill was 12 out of 20; evaluation skill was 9 out of 20; self-regulation was in average criterion with the score of 5 out of 10 and in good level of explanatory's skill with the score 6 out of 10, while 12 for inferences (average level). It can be also seen in following graphic.

Figure 2 – 130 Students' critical thinking skill results

The researchers do aware of fostering students' critical thinking, whole-class dialogue strategies will shift the development of ideas towards the student to create an opportunity for practice in analyzing and evaluating information. The teachers should begin the class discussion before the students watch the video.

Students' 4C (communicative, collaborative, critical and creative thinking) skills. In order to cultivate students' critical thinking skills, integrating 4C skills and using technology in teaching and learning process might be real advantage (Dwyer, 2019). In this research, the researchers integrated 4C skills practically. Since the main focus of this study is on cultivating critical thinking skills to the students, the 4C skill information of the students they collected generally. The students' results presented in the following table.

Table 3 – Students' 4C skills

Objectives	Excellent	Good	Average	Fair	Poor	Very poor
Communicative skills			√			
Collaborative skills	√					
Critical thinking and Problem solving skills			√			
Creative and Innovative skills			√			

The table above presents the students' 4C ability in English subject. The results showed that, majority of the students were in average level at communicative skills, critical thinking and problem solving skills, and creative and innovative skills. However, the students had excellent collaborative skills. They really supported, assisted, respected, loved, listened and brought out the best of each other. They worked, solved

the problems, made decisions, and responded to the questions together with fellows, and there was not any problem with their collaborative skills.

According to studies about students' writing ability, which is connected with the cognition, author (Atayeva M. et al., 2019) recommends students to read as much as possible because reading improves students' critical thingking skills.

Conclusion. This research involved 130 State Junior High School students (*SMP Negeri* 1 Sedayu, Yogyakarta) with grade IX. The Facione's critical thinking rubrics were used to point out the level of their critical thinking in the forms of interpretation, analysis, evaluation, inference, explanation, and self-regulation skill of a short-video. The researchers believed that using technology can assist students to foster their critical-thinking skills. However, in this study the results are still considered important with notes. The researchers find that the students' answers towards the questions given pertinent to the short-video expound their critical thinking skills which are categorized as fair level. This means that the short-video used in this case does not have a significant influence on their critical thinking skills. Furthermore, their critical thinking levels are still in fairly average categories indeed. In other words, the students of grade IX of Junior High School 1 Sedayu, Yogyakarta, need to practice more on enhancing their critical thinking through utilizing any similar video.

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АҒЫЛШЫН ТІЛІ САБАҒЫНДА ҚЫСҚА БЕЙНЕ МАТЕРИАЛДЫ ҚОЛДАНА ОТЫРЫП, ОРТА МЕКТЕП ОҚУШЫЛАРЫНЫҢ СЫНИ ОЙЛАУ ҚАБІЛЕТТЕРІН ДАМЫТУ

Аннотация. Индонезиядағы орта мектеп оқушыларының сыни ойлау қабілеттерін дамыту үшін оқытудың тиімді әдісі өте қажет, өйткені олардың сыни ойлау қабілеті әлі де төмен. Бұл зерттеу қысқаша бейне материалды қолдану арқылы оқушылардың сыни ойлауын дамытуға бағытталған сипаттамалық зерттеу болып табылады, өйткені технология студенттерді оқуға және сабаққа қызығушылықтарын арттыруға, тиімді оқу әрекетін қамтамасыз етуге итермелейді деген пікір қалыптасқан. Олардан сыни және шығармашылық ойлауды талап ету қажет. Бұл зерттеу жұмысына Ягьякарта қаласындағы мемлекеттік жас-өспірімдер орта мектебінің IX сыныптың 130 оқушысы қатысты (бұдан әрі Sedayu NMP N 1). Студенттер жасына, экономикалық және әлеуметтік жағдайына, сондай-ақ ағылшын тіліне сәйкес біртекті болды. Фасионың сыни ойлауды дамыту айдары студенттердің қысқа бейнені түсіндіру, талдау, бағалау, тұжырымдау, түсіндіру және өзін-өзі басқару шеберлігі тұрғысынан сыни тұрғыдан ойлау деңгейін көрсету үшін пайдаланылды. Тестке дейінгі сыни ойлау дағдыларындағы барлық заттардың орташа баллы 20-дан 9-ы бойынша әділетті деңгейде бағаланды. Нәтижелер оқушылардың түсіндіру дағдылары 20-дан 9-ға дейін әділ болды; аналитикалық шеберлік 20-дан 12-ге жетті; бағалау шеберлігі 20-дан 9-ы; өзін-өзі реттеу әділ критерий бойынша 10-нан 5-ке және түсіндіру шеберлігінің деңгейі 10-нан 6-ға, ал нәтижелер үшін 12-ге ие болды. Осылайша, Sedayu N 1 SMP IX сынып оқушыларының сындарлы ойлау қабілеті әділетті деңгейіне байланысты қанағаттанарлықсыз деп қорытынды жасауға болады. Қысқа бейнені құрал ретінде пайдалану олардың сыни ойлау қабілеттерін жетілдіре алмайды. Сондықтан студенттерге кез келген ұқсас құралды қолдана отырып, сыни тұрғыдан ойлауға көбірек машықтану ұсынылады.

Түйін сөздер: сыни тұрғыдан ойлау, танымдық дағдылар, қысқа бейнефильмдер, орта мектеп, оқыту әдісі, оқушылар.

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ВОСПИТАНИЕ НАВЫКОВ КРИТИЧЕСКОГО МЫШЛЕНИЯ УЧАЩИХСЯ МЛАДШИХ КЛАССОВ СРЕДНЕЙ ШКОЛЫ С ПОМОЩЬЮ КОРОТКОГО ВИДЕО В КЛАССЕ АНГЛИЙСКОГО ЯЗЫКА

Аннотация. Эффективный метод обучения для развития навыков критического мышления учащихся младших классов средней школы в Индонезии очень необходим, так как их способность критического мышления все еще остается низкой. Это исследование является описательным исследованием, целью которого является развитие критического мышления учащихся с помощью короткого видео, поскольку считается, что технологии могут мотивировать учащихся учиться, повышать их интерес, привлекать их к уроку, обеспечивать эффективную учебную деятельность и требовать от них критического и творческого мышления. Предметами этого исследования были 130 учеников IX класса Государственной младшей средней школы (далее Sedayu SMP N 1) в г. Джокьякарта. Студенты были однородны с точки зрения возраста, экономического и социального происхождения, а также по баллам английского языка. Рубрики критического мышления Facione использовались, чтобы указать уровень критического мышления студентов с точки зрения их интерпретации, анализа, оценки, умозаключений, объяснений и навыков саморегуляции короткого видео. Средний балл по всем предметам в навыках критического мышления перед тестированием находился на удовлетворительном уровне с показателем 9 из 20. Результаты показали, что навыки устного перевода учащихся были удовлетворительными с показателем 9 из 20; аналитический навык был 12 из 20; оценка навыка составила 9 из 20; Саморегуляция была в справедливом критерии с оценкой 5 из 10 и хорошим уровнем навыка объяснения с оценкой 6 из 10, а 12 для умозаключений. Таким образом, можно сделать вывод, что навыки критического мышления учеников IX класса Sedayu SMP N 1 Джокьякарта, все еще были неудовлетворительными из-за их удовлетворительного уровня. Использование короткого видео в качестве инструмента не может улучшить их навыки критического мышления. Поэтому рекомендуется практиковать более относящиеся к критическому мышлению для студентов, используя любой подобный инструмент.

Ключевые слова: критическое мышление, когнитивные навыки, короткие видеоролики, средняя школа, методика обучения, ученики.

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