Abstract
The times are progressing rapidly so that the need for critical thinking is increasing. Some experts argue that those who think critically are able to solve problems responsively. Therefore, education practitioners take various ways to create nowadays critical generation, as well as the Aceh Documentary (ADC) Foundation in Banda Aceh. The documentary film production training which is conducted annually by the ADC Foundation is believed to be able to improve the critical thinking of the participants. This study aims to determine the perceptions of four participants of Aceh Documentary Foundation about improving their mindset after attending the documentary film production training. This is a qualitative research. The data for this study was collected from early June to August 2019, which the Data collection techniques used in the research were interview and FGD. The data analysis stage was carried out on September 2019 after the documentary film training was completed. The data analysis is carried out by using the Miles & Hubermen style, in which activities in the analysis include data reduction, data display, and conclusion drawing / verification. From this research, it can be concluded that the use of documentary films as a learning medium can improve the participants’ critical thinking, even though the level of criticism obtained by each individual is different.

Keywords: Critical Thinking, Film Documentary, Aceh documentary

INTRODUCTION

Critical thinking is a skill that potential employers expect all graduates to possess (Bandyopadhyay & Szostek, 2018). It has been recognized that critical thinking is one of the most important skills and one of the most important indicators of the quality of student learning (Alsaleh, 2020). Nowadays, critical thinking is a necessary think to have in facing many kind of problems in our daily life. This is because there are so many problems that arise in the world of work that require us to solve them agile (Rodzalan & Saat, 2014). This is where someone who has a critical thinking proves that he or she is able to decide whether a case is right or wrong (More & Parker, 2009), so that problems can be resolved quickly and correctly.

Spector (2019) argued that critical thinking is an activity involving a series of cumulative and related abilities, as well as dispositions and other variables; for example,
motivation, criteria, context, knowledge. This approach comes from experience; for example observing something out of the ordinary, and then into various forms of inquiry, investigation, examination of evidence, exploration of alternatives, argumentation, testing of conclusions, rethinking assumptions, and reflecting on the whole process. The ability to think critically was stated to be the most important pillar among the goals for a new knowledge–based economy (Jones & Pimdee, 2017). There for, according to Sulaiman, Rahman, and Dzulkifli (2008) in Changwong, Sukkamart, and Sisan (2018), many university professionals are currently competing to prepare students to be able to think critically, because critical thinking is also a quality that most university graduate employers are looking for.

With these various demands, education is expected to facilitate students so that they are able to face and solve various problems agile (Soleimani, Rahimi, & Sadeghi, 2015). This critical thinking attitude must be accustomed and instilled since someone is in education so that it can become a culture, therefore this activity must always be created in the learning process (Nushur & Astutie, 2019). The learning approach taken must also be able to facilitate students with teaching materials related to their lives, experiences, and interests, so that they can relate them to real life (Martelli & Watson, 2016). Besides, according to the research by Bassham, Irwin, Nardone, and Wallace (2013) which showed that higher education has the responsibility for developing critical thinking skills which will lead to higher-order thinking. The same thing is also expressed by Costa & Kallick (2014) in Kraisuth & Panjakajornsak, (2017) which states that critical thinking skills are consistently part of the list of important things behind college and career readiness.

The more mature a student is, the richer and more complex the assessment can be given (Carless, 2015). However, this did not escape the learning process that was received. A student who is not sharpened in the thinking will have a weak mindset. This critical thinking is not necessarily shared by every individual. Humans are not just destined to decide something, but are given thoughts so they can consider the right or wrong of a decision (Soleimani, Rahimi, & Sadeghi, 2015). Critical thinking is a skill that must be practiced continuously. The more often someone trains it, the better the analysis given. This shows that critical thinking patterns are not a set of thoughts that can be used at any time in any context, but require regular practice in order to be successful (Willingham, 2007). Lack of a critical mindset can result in wrong reasoning and wrong decision making, so that eventually you have to face serious consequences (Heijltjes, Gog, & Paas, 2014).

Documentary films themselves are one of several types of films that are most suitable for adoption as a medium or form of learning, because in the production process, they raise
facts without changing the issues in social life (Rikarno, 2015). Through this documentary film, students will carry out several stages of learning, namely determining basic questions (essential), designing project planning, compiling schedules, monitoring project progress, testing learning processes and outcomes, and finally evaluating learning experiences (Delisle, 1997). Through this learning process, it is hoped that it can hone and improve students' critical thinking.

This study aims to improve students' critical thinking through documentary film production. Through this approach, learning is carried out in teams where students are required to be able to carry out steps consisting of: Determining basic questions, designing project planning, compiling schedules, monitoring project progress, testing learning processes and outcomes, and evaluating project experiences or experience learning activities.

Several studies that have used film as a learning medium have been carried out before, including research with the title “The use of documentary film as media to improve student's thinking ability in social science learning (classroom action research in class viii-6 of smp negeri 9 bandung city)” (Mulyana, 2016),”The development of documentary film learning media to improve student learning enthusiastic of vocational senior high school pgri 1 sentolo grade x on accounting trading company” (Riza, 2016), "Documentary film as a student learning medium" (Rikarno, 2015) and "The effectiveness of documentary films as a learning media to write arguments in class X SMA Tiga Maret Sleman Yogyakarta" (Nurlaelah, 2014). From these studies, it can be seen that documentary films are often used as a medium of learning, but the use of documentary films as a tool to improve student's critical thinking is rarely found, even though the stages of documentary film development themselves require a fundamental and in-depth analysis, so that students get used to think and analyze the situations they face.

**RESEARCH METHOD**

The method used in this research is qualitative research methods. According to Miles & Hubermen (1984), activities in analyzing qualitative data occur interactively and continuously during the research process so that no new information is found in the data, or the data becomes saturated. In obtaining the data of this research, the methods used in this study consisted of interviews and FGD.

Interviews were carried out before and after the research was carried out to measure the level of criticality in the mindset of students who were as the learning participants. Data collection by interview was done twice, namely before the training program was
implemented; at the time of selecting proposals for documentary film work, and after the documentary film production program is completed. There were 5 questions consisted in the first interview and 7 questions in the second one. The interviews focused on participants who passed the selection for the documentary film training program. There are two groups selected, each of which consists of two participants. The first group raised the title "Minor" and the second raised the title "Klinik nenek". In this study each participant will be named P1, P2, P3, and P4.

Then the FGD was held on September after the learning process was carried out. From the results of the analysis, it will be known to what extent the documentary film was successful in improving students' critical thinking. the FGD was participated by four participants who got awardee for Aceh Documentary training in 2019, a delegation of Aceh Documentary organizer, and two alumnus of Aceh Documentary Training.

The target population in this study is the Aceh Documentary (ADC) Foundation Banda Aceh, the population focused is participants of the training of documentary films production in 2019. This study used purposive sampling technique with certain criteria, namely: participants of the training were those students who at the level of higher education, participating in the documentary film production program at the Aceh Documenter Foundation, and passing documentary film theme selection in 2019. The data collected during the research process will be analyzed in accordance with the method of analyzing data in qualitative research. The data analysis model used is Miles & Hubermen's (1984) qualitative data analysis, in which activities in the analysis include data reduction, data display, and conclusion drawing / verification. First, all data that has been collected through observation, interview and FGD in the research process will be sorted and decided on which data is considered important and which is not, then the data deemed unnecessary was reduced. Next, the previously sorted data will be presented in narrative form. Then finally the data results that have been presented will be summarized and verified so that the conclusions obtained are considered credible.

RESULTS AND DISCUSSION

Interview I

This interview was carried out at the time of selection for receiving training proposals for documentary film work in 2019. There were several questions that was answered by the participants in the interview I. The answers were given based on the groups of each
participant, the four participants who were selected consisting of the two groups gave the
following answers.

1. What do you think of documentaries film?
Answer:
Group 1: Minor film (P1 and P2)
A documentary film is an attempt to retell what is in real life based on facts and data which are
reproduced in a visual form.
Group 2: Klinik nenek film (P3 and P4)
Documentary films are films that tell true stories or facts about an event.

2. Have you ever watched a documentary film? If so, what films and stories are they about?
Answer:
Group 1: Minor film (P1 and P2)
Yes, a film entitled “sexy killer” tells about coal mining, where mining is practically carried out in a
very unwise manner and even has many negative impacts on the community, for example; village water
that has started to be polluted, people's gardens have begun to become infertile, and the impact of
pollution from factory dust is slowly torturing the lives of the local people who feel it firsthand.
Group 2: Klinik nenek film (P3 and P4)
Yes, sexy killer films. This film tells about the arbitrary actions of coal entrepreneurs, which have a
negative impact on society; some even claimed lives.

3. What idea for the documentary film you submitted
Answer:
Group 1: Minor (P1 and P2)
The story idea that we are going to raise is about minorities living in Aceh, where they are
unwittingly discriminated against, even though it is not too obvious.
Group 2: Klinik nenek film (P3 and P4)
The film we picked up entitled Klinik nenek, it tells about the story of alternative or traditional
medicine that is beginning to be forgotten and abandoned in the society, even though this traditional
medicine is no less effective than medical treatment in hospitals.

4. How important is the story idea? if it is important, please try to explain briefly!
Answer:
Group 1: Minor (P1 and P2)
We think this issue needs to be raised considering that the issue of minority discrimination is a sensitive issue, so it is important to be studied and can open people’s minds to the importance of mutual respect even for trivial matters.

Group 2: Klinik nenek (P3 and P4)

This topic is important to raise because it can provide knowledge and open up the knowledge of the community, especially Aceh, about the availability of traditional or alternative clinics that also have effective medicine as well as modern or medical medicine. In addition, this traditional clinic is worth preserving.

5. What is your motivation to turn the story idea you submitted into a documentary film? Explain!

Answer:

Group 1: Minor (P1 and P2)

This story is a personally experience of one of us, one of which is a non-Muslim (Christian), so the desire to raise this issue into a documentary film is very strong. In addition, we want the Acehnese in particular to be able to respect minorities more and be able to act fairly and not differentiate.

Group 2: Klinik nenek (P3 and P4)

We want to remind people of the importance of preserving alternative or traditional medicine, so that our society is aware that medical treatment is not the only option, traditional medicine is no less good than modern or medical medicine.

Interview II

This interview was conducted after the program was completed and ADC had produced a documentary film for the participants. When conducting this interview, the participants had passed every stage of the documentary film development held by ADC. Here are the questions asked and the answer collected;

Question 1: What was the theme given when you joined the ADC program? And what title do you guys submit?

P1: Geunulam, the title was minor.

P2: Geunulam, minor.

P3: The theme for ADC in 2019 is Geunulam, and the title of the documentary that we proposed was Klinik nenek.

P4: The theme is Geunulam, the title was Klinik nenek.
Question 2: What do you think about the selection process for ADC participants?
P1: joining the ADC scholarship program really makes us more sensitive to what’s going on around us. Some of the activities while joining this program were actually a bit beyond what we imagined. We thought that the process of making this documentary film taught more about the technicalities of filmmaking, it turned out that not only that, but also formed our mindset to question everything deeply and fundamentally.
P2: joining the ADC program was a bit tiring actually, but what we learned during the training made us more critical. Because ADC was not only taught how to make films technically, but also taught us to question everything in detail.
P3: Following the training program scholarship selection process held by ADC has its own impression, the fatigue we got during the training paid off with the knowledge we got afterwards. ADC teaches us to be more critical and to question everything in detail and fundamentals. For example, in the production of a documentary film that we adopt, we must know why the film is feasible to produce and what are the benefits if the film is picked up and watched by the public. We even had to have a reason for every scene that we present in the film, for example why the scene should be included and how important it is if the scene is shown. It’s tiring, yes, but it pays off with the knowledge we get.
P4: My opinion during the selection was tired, interesting, and very insightful. Because each stage always makes us think deeper. Apart from that, this training also made us more courageous to argue or give opinions. Overall, the training process from selection to completion was very interesting and made us more critical.

Question 3: Why are you interested in joining the ADC program?
P1: To learn more about how to be a filmmaker and documentary filmmaker in particular
P2: because it can tell a true story that maybe people don’t know yet, even something that is taboo to publish.
P3: I am interested in joining the ADC program because I feel I have an interest in the audio visual field and I want to hone my skills by joining this program. By joining this program, I know a lot about short films, documentaries, and others.
P4: because we want to know and learn how a film is produced.

Question 4: What is your reason for raising the title you are proposing?
P1: Because the issue of religious diversity between minorities and the majority in Aceh is still very taboo and has never been raised through documentary films, especially in Aceh. The reason is because the issue is very sensitive, so there are many perspectives that emerge, but the existence of the film can open the eyes a little and become a medium for discussion.
P2: Because it describes the content of the film that we want to show as a minority, because in Aceh we can take the religious minority side from the point of view of non-Muslim families.

P3: Our interest in choosing that title arises from our sense of anxiety that today many people have neglected traditional medicine. Actually, traditional medicine is no less good than modern medicine. Just because modern medicine is more hygienic doesn’t mean traditional medicine is unclean. So in that film we wanted to show the public that traditional medicine is also good because this was a ancient system of medicine. This does not mean that we are abandoning treatments that are sometimes more effective than modern medicine.

P4: because the title describes a grandmother who is able to heal people using traditional medicine.

Question 5: Has your original idea changed after going through the reviewing and editing process? If so, explain the extent of the changes.

P1: It was slightly switched paths, but didn't change the idea. Our film was still flawed and imperfect like our imaginations, but they still bring out the best of our work

P2: No.

P3: Our basic idea doesn't change after going through several stages, it's just that we change our main subject. Honestly, I am not satisfied with the films that we produce because of the many flaws in our films.

P4: It doesn’t change the whole idea, but there were some parts that change but our film was still well presented.

Question 6: What message do you want to convey to the public through the documentary film that you were working on?

P1: There are personal unrest from the minority of the Muslim majority in Aceh.

P2: would like to convey that in Aceh it is not only Muslim, but also other religions that can coexist although not in all respects. As well as showing a side of life for the religious minorities in Aceh that the Acehnese might not know.

P3: We want to show people that traditional medicine still exists. Why should we ignore it, because this treatment is also effective in curing diseases. So, let's together we preserve our medicine since long before the existence of modern medicine.

P4: We would like to convey that traditional medicine that has been used since a long time ago is still being maintained and developed.
Question 7: Do you think that after following each stage of the ADC annual program, has there been a change in your mindset? Be specific.

P1: Yes, because after participating in the ADC program, I am personally more open and more detailed in studying a documentary idea. This also makes me more critical in exploring a basic idea from a subject or topic for a documentary film that I will produce. At ADC for the first time, I got to know about documentaries and how to be a film maker in the real world of film production and research, such as like investigating cases. Especially for my mindset, starting from what I got in ADC in 2019 until now, it slowly shapes me to be better in the way how I think. It of course supported by many factors, and the learning process in ADC was also an influential journey or me that make me become more critical in respond to a concept or idea. I appreciate the process.

Q2: Yes, I prefer to give an overview to the people closest to me about stories or information that they may only know in advance, and so that people around me can be more open minded to things that are difficult to accept.

P3: After joining the ADC program I gained a lot of knowledge, especially in the field of making a good and correct film. The change in the way how I think after participating in this activity was quite increasing. I am more sensitive to the environment around me with the added insight, then it makes me think more about planning something.

Q4: Yes, I feel that after I attended ADC I was more critical in thinking

FGD

The Forum Group Discussion (FGD) process was carried out on September after all the training activities and the production of selected films had been produced. During the FGD, the participants looked enthusiastic and the discussion became more and more interesting on each opinion given. Of the four participants who took part in the FGD, two participants, namely P1 and P3, were more prominent in giving arguments. This can be influenced by the idea of the story that was adopted into the film from them, while P2 and P4 are those who accompany or are invited to participate in the success of the production of the films they have produced.

According to P1, this documentary film training has really made them more sensitive to what is happening around them. The 10 days training made them more critical because they were trained to question everything in detail and fundamentally. Several times they felt overwhelmed, but each process became very interesting, sometimes they had to give two presentations a day. Every argument they give must have a basic reason. The answer to the "why" and "how" of a statement seems to be obligatory for them.
Just like P1, P2 also said that they were overwhelmed by the series of activities they had to go through during the training process so that they felt like giving up, but because they work in a team, they can support each other when one of them falters. The training activities carried out by Aceh Documentary really drained their energy and minds, but all the fatigue of course produced sweet results, because in the end they became accustomed to think more deeply and fundamentally when dealing with problems encountered in the field. Even today, when the filming is finished, the way of thinking as applied to the training is still carried over in their daily lives.

P3 also agreed with the opinions given by his friends, according to him, the training activity was very natural to make them tired because every science of film, from planning to make a film to the final editing process, they learned in ten days. According to him, the ten days was a very short time to study the whole science of the documentary film. Their minds and bodies were suddenly forced into intense activities that they had never done before. This of course shocked their bodies. P3 added that their bodies and minds are used to being too relaxed and inattentive to become lazy in moving and thinking. Therefore, when they are faced with a situation that requires them to be physically active and think, they will feel exhausted and overwhelmed. The tired feeling of thinking critically will disappear over time if we continue to apply this critical thinking in our daily life, so that critical thinking is no longer a requirement but an habit. She was very grateful to Aceh Documentary for the learning opportunity provided through this documentary film training scholarship program. P4 also agrees with his other colleagues, it's just that according to him, the basic training process on the theory of film cultivation for ten days can be increased to 15 days or more. The learning process that is rushed and under the pressure of deadlines is certainly less effective than the learning atmosphere which is more relaxed. Especially for those who are beginners. However, of course the learning process has been able to shape the alumni to be more critical in thinking. The habits of questioning everything fundamentally and in detail carried over in their daily lives. According to him, this ability will disappear if it is not continuously sharpened.

Discussion

Based on the results of interview I and interview II, it can be seen that the participants' mindset has improved; they be more critical in thinking. In the first interview that was conducted before the documentary film training process was carried out, the answers given by the participants were still rather superficial, so it could be concluded that their critical thinking was still very low. However, after following the documentary film-making process...
from start to finish, it turned out that not all participants had drastically improved in the way they thought, although there was still an increase in their mindset. This could be caused by several factors. One of them is because the cultivation of this documentary film is done in groups so that one of them may be less active or one of the others is more dominant in making the film. In addition, psychological factors also have an effect, where not everyone has the same information absorption and intelligence. However, of course, to get maximum results they have to routinely do exercises in making other documentary films so that their abilities are increasingly honed. Below will explain the improvement in the participants' mindset in detail.

P1 and P2: In the first interview they gave similar answers because they were in the same group and were conducting the interview stage simultaneously. They presented the idea of making “Minor” films with questions in accordance with what they described. In addition to the core questions as a guide, the interviewers also expanded their questions according to the explanation given by the participants, so that the information obtained from the participants could be more detailed. It can also sharpen their critical mindset by thinking more deeply about the answers given to the questions posed.

P3 and P4: Similar to P1 and P2, P3 and P4 also conducted the first interview simultaneously. They are required to be able to present the film that they will adopt. However, even if conducting the interview simultaneously in a group, the interviewers will still ask some questions personally, even though some other questions are asked for both of them so that anyone of them can answer the questions. As was also experienced by P1 and P2, the interviewers also gave personal questions according to the explanation they gave, although core questions were still thrown for both of them so that anyone between them could answer. Each question posed by the interviewers has the aim of obtaining information to determine the feasibility of the film they are proposing to work on is declared feasible.

Then, from the results of the FGD that was carried out, it can be seen that the application of the critical mindset they had learned during the documentary film training carried out by Aceh Documentary has become a habit in their daily lives, so this habit makes them a critical figure. Their critical mindset will continue to improve if practice after practice continues. The discussion process during the FGD became exciting and deep because the opinions they gave sounded simple but heavy. They also sounded more courageous in expressing their opinions.

In determining the basic questions (essential), the participants have applied them since the beginning they filled out the registration form to get the scholarship for the film. On the
registration form, there are some basic questions that they must describe, it's just that at that
time they were still following the stimulation of questions from the ADC, and had not yet
reflexively questioned the conditions they raised.

For the design stage of the project questions, the participants did it in basic training
activities, where before designing the project they were also taught about the basics of making
the documentary film. At the end of the activity, the participants were asked to prepare
questions, do the plan, and schedule for the documentary film that they will work on.

The monitoring progress of the project was carried out while the documentary film
was being produced. This activity was supervised by the activity committee who are the
alumni and administrators of ADC (Aceh Documentary). The activity supervisors will
continue to accompany each group of participants during film production; including during
film editing, so that you can continue to provide input for maximum results.
Testing process and learning outcomes was carried out when the participants were ready to
present their work. The film that had been worked on was screened and judged by the judges,
and the best film was given an award. Each participant was given input as a learning
evaluation, however, they will also got appreciation for the results of their hard work.

CONCLUSION

According to research that has been done at the Aceh Documentary Foundation Banda
Aceh, it can be concluded that the production of documentary films can increase the critical
thinking of students who are participants in the documentary film production training which
is held annually. The participants who were selected as recipients of the training for film
production underwent various test stages conducted by the ADC, where at each stage of the
test, the participants had indirectly applied critical thinking training process, namely by
determining basic questions (essential), designing project planning, compiling schedules,
monitoring project progress, testing learning processes and outcomes, and finally evaluating
learning experiences.

After going through the various series of activities, it can be seen through interviews
and FGDs that their critical thinking has improved quite significantly, even though each
individual gets different results. The level of this critical thinking is also seen from the
intelligence abilities possessed by each individual, as well as their different backgrounds.
However, the finding of this study have to be seen in light of some limitations. Firstly, the
project based learning method used in this study focused on specific purpose namely
producing documentary film training in order to improve students' critical thinking. On the
other hand this kind of method can also be applied in other learning subjects to make students more active and feel enjoy in participating the learning activities, at the end it can improve their level thinking as well. Secondly, because it is a kind of qualitative research, the minim objects existed. the choosen objects of this research were only four participants as the represent of the study that make it needs other similar researches as the strengthener. According to the limittions mentioned above, the following studies about project based learning as the tool to improve critical thinking is suggested to be conducted.

However, according to the results of this study, the result of this learning method can be said to be quite satisfying and as expected. This is the reason what supports this article is worth reading and understanding, so that the learning process of students is enjoyable and can be more interesting with satisfying results. The learning process must also be provided by following the times.

Based on the above conclusions, the author would like to convey the suggestion for other researchers who have the same interest in the the way how to improve critical thinking in students, that is to examine other learning approaches that can be applied to improve students’ critical thinking, because critical thinking is something that students must have for their readiness to face the world of work and social life in the future.
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