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The Analysis of the Honesty and Responsibility Characters of Chemistry Students during Exams in Chemistry Education Study Program

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Abstract

Honesty and Responsibility should be a principle held by students. But there are still problems of dishonesty and irresponsibility of students during exams. This study aimed to analyze the honesty and responsibility character of chemistry students during exams. The research samples were 39 students. Data were collected by observation and interviews technique using observation and questionnaires sheets. Data were analyzed by using descriptive statistics. The results showed that the honesty and responsibility of chemistry students were in the excellent category, where the percentage of honesty and responsibility of students based on the observation sheets was 43.6% and 49.0%, respectively. While the questionnaire responsibility students were 46.2% and 43.6%, respectively.

Keywords: Honesty, responsibility, test

Introduction

Education is an effort to realize the aspirations of an individual or even the ideals of a nation; education starts from early childhood. Early childhood education aims to instill character values brought to adulthood, children's character education. So important because an individual's character can be formed from an early age (Hidayah, 2019). Education and character building are essential things in a person's life because the surface is one of the determinants of success (Utami, 2015).

Learning is a conscious effort made by individuals to acquire various abilities, skills, and attitudes through a series of learning processes and is expected to result in behavioral changes in each individual (Asriani et al., 2020). Especially in the context of education in higher education, students are expected to show reasonable diligence. Moral learning behavior in every educational process they take so that they can become qualified students and are ready to face the challenges of the times (Uyun, 2018) so that character education in higher education can complement the character that has been formed in students who were obtained at the previous educational level, but this has not been running as it should be, however, universities in Indonesia must take place in implementing character education in students (Susanti, 2013). In addition, lack of self-confidence and dishonesty are still common in solving exam questions (Suprapto, 2016)

Students should get knowledge transfer during the educational process and get an excellent and inadequate understanding of right and wrong (Dewi et al., 2018). Even every material in a subject needs to be integrated with character education (Bahri, 2015). Important characters possessed by students include having honesty and integrity. Honest is to admit, say, or provide accurate and truthful information. Ethical behavior can also be understood in the right words and can be seen from the correct behavior or actions such as obeying applicable regulations (Buchori et al., 2016).

The character of honesty and responsibility in students can be seen when chemistry students take the exam. For example, students cannot do the exam questions, so students prefer to leave the answers to questions that cannot be done then choose to cheat, even though they see some of their friends cheating, copying from books, and looking at their handphones. Students who uphold the value of honesty and have a sense of responsibility choose not to follow the behavior of their friends. Students feel satisfied with the test scores from their hard work results. This means that students can provide rewards for honest conduct of themselves, as stated by Bucciol & Piovesan (2011). Even at a trim level, internal compensation affects a person's behavior honesty—religious factors such as fear of sinning when cheating also appears in a small proportion. One of the characteristics of students that influence students to cheat or not is religion.

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Exams are one way to evaluate the learning process. Students can determine the extent of their ability to understand the course material being taken. If the results are not optimal, the learning process must be increased both in intensity and quality (Friyatmi, 2011). As happened to chemistry students in semester one during the exam. Students stated that chemistry subjects were complex and challenging to understand. This was proven where their scores on the exam were not satisfactory. This shows that students' mastery of the material is still lacking, especially in chemistry subjects. Because unsatisfactory results make students (Mustapa, 2018) react negatively because they see failure as a constant ability, and failure is evidence of their weakness.

Chemistry is a science that seeks answers to the what, why, and how of natural phenomena related to substances' composition, structure, and properties, change, dynamics, and energy. Mustapa (2009) states that the purpose of teaching chemistry is to gain a long-lasting understanding of various facts, the ability to think, the ability to recognize and solve problems, have skills in using laboratory tools and materials, and have a scientific attitude that can be displayed in everyday reality. Chemistry solves problems and studies descriptions of chemical facts, specific terms, and rules of chemical rules.

The mastery of the material and unsatisfactory grades causes students to commit cheating during exams to get back a lousy rate. Ngadiyono et al. (2016) stated that many problems arise from dishonesty, then lies appear, tricks, tricks that result in no transparency in all actions. Honesty is part of a positive character that needs to be developed in oneself—students in taking lectures. By creating honesty, cheating behavior and its adverse effects can be avoided. Students will apply honesty in lecture activities and daily life, developing into honest adult individuals (Sukmawati, 2016). The value of honesty is significant to occupy the fifth choice, after religious values (Gunawan, 2020).

Based on the results of observations and interviews with several semester one chemistry students of class A 2019, the honesty and responsibility of students at the time of the exam were still low, which caused them to commit fraud. Some students cheat because they do not understand the material, do not study before the exam, join friends who cheat, and the supervisor is less strict.

This paper intends to describe the character of honesty and responsibility of chemistry students during exams in the Chemistry Education Study Program.

Methods

The method used is the descriptive quantitative method. The reason researchers used quantitative descriptive research was because the researcher wanted to describe or describe the facts or circumstances that occurred during the exam conducted by the 1st-semester chemistry students of 2019. Researchers wanted to define and describe the forms of honesty and responsibility carried out by students during exams based on visible or facts.

The population in this study was 130 chemistry students in the Chemistry Education Study Program semester 1, 2019, with three classes registered in the 2019/2020 school year. At the same time, the sample in this study was the first-semester chemistry students of class A 2019 with 39 students.

This study was determined using a random sampling technique, namely, taking members of the sample from the population randomly without paying attention to the strata in the population (Sugiyono, 2016). The data in this study were primary data obtained through observing student activity during the exam in the form of an observation sheet that has been modified with eight indicators, of which four are on the aspect of honesty, and four are on the element of responsibility. An expert has validated the observation sheet to determine the validity category of each component of the observation sheet. It has been declared fit for use to identify the honesty and responsibility of students during the exam.

Research instruments
1. Observation Sheet

The observation sheet used by the researcher is an observation sheet consisting of indicators of honesty and responsibility. The hands are f honesty comprised of 4 needles, and the indicators of commitment are four indicators taken when the exam is in progress and observed by several observers.
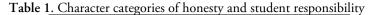
2. Questionnaire

The questionnaire used by the researcher was a questionnaire consisting of several questions/statements about honesty and responsibility that were carried out or not carried out by students during the exam.

Data analysis technique

The data analysis conducted in this research is quantitative descriptive analysis. Data was obtained and collected through the results of observation sheets and questionnaires that have been filled out. Data analysis will be known how many students are honest and responsible at the exam. From the data that has been collected, then a descriptive data analysis is carried out by explaining the situation in the field objectively. By finding the percentage of each criterion using the formula:

$$Average = \frac{acquisition\ score}{maximum\ score} x\ 100$$

The percentage results obtained are categorized in the converse guidelines for the average percentage of honesty and student responsibility according to (Sugiyono, 2016) which can be seen in **Table 1**.

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Table 1. Character categories of honesty and student responsibility

Percentage (%)	Category
81 – 100	Very Good
61 – 80	Good
41 – 60	Sufficient
0 – 40	Less

Descriptive analysis was used to calculate the percentage of student honesty and responsibility at exam time. The measurement of student honesty and responsibility is illustrated by the student's answers to the completed questionnaires. The data obtained were then analyzed with the following percentage formula (Sugiyono, 2016).

$$NP = \frac{R}{SM} x 100\%$$

Information :
NP : The value% sought or expected
R : The raw score obtained by students
SM : Maximum score

Results and Discussion

This research is a quantitative descriptive study. The writer conducts research directly to the location to obtain the required data. To get data is to observe student activities through observation sheets during exams conducted on class A chemistry students class 2019 semester 1. The scores obtained through the observation sheets are processed in the form of an average of each indicator then converted into a percent value (%). The score can be categorized as honesty and responsibility of chemistry students based on the score obtained.

There are three subjects observed: Introduction to Education, Basic Mathematics, and Basic Chemistry. Each subject was observed once using three observers.

The concept of honesty that must be instilled is honed, themself and the environment, and the social community. If people's lives are not based on honesty's values, then the meaning of life will be dry and barren from all deals because honesty is essentially a source and an essential element of all matters (Mansur & Tafsir, 2016). Apart from honesty, responsibility is also important to instill in a person. Responsibility is a person's attitude and behavior to carry out his duties and obligations that he should do for himself, society, the environment (natural, social, and cultural), the State, and God Almighty (Purwanti, 2016).

Results of student observation sheets

The data from this study were obtained from observing student activity during exams conducted by three observers by assessing four indicators of honesty and four indicators of responsibility. The data analysis results showed that the students' openness and responsibility at each meeting based on the indicators were in an excellent category. The results of student honesty and responsibility observations during the exam can be seen in **Tables 2 and 3**.

Table 2. Observations on the honesty of chemistry students at the time of the exam

Meetings	Student amount	Amount of students in honesty category	Honesty Presentation (%)
1st	39	19	48.4
2nd	39	23	44.6
3rd	39	15	38.0
Average	39	19	43.6

The highest percentage score for the honesty aspect of students is in the introductory education course (48.3%). The element of student honesty decreased for basic mathematics (44.5%) and introductory chemistry (38%). Based on the results of student observation sheets at each meeting, the average value of the honesty of chemistry students at the time of the exam was 43.6% in the excellent category.

Table 3. The results of observations of the responsibility of chemistry students during the exam

Meetings	Student amount	Amount of students in category responsibility	Responsibility Presentation (%)
1st	39	21	54.0
2nd	39	28	52.9
3rd	39	16	40.2
Average	39	22	49.0

Based on **Table 3**, the observation of student responsibility at the time of the exam had the highest percentage at the first meeting (Introduction to Education) with a rate of 54%. In comparison, at the second meeting (basic mathematics), the percentage of student responsibility decreased with a percentage value of 52.9%, and the lowest rate was at the third meeting (essential chemistry) at 40.2%. The average value of student responsibility at each session based on the observation sheet was 49%, with a good category. This is because students ignore the learning process, causing them not to understand the material given. Students also do not repeat the material that has been obtained on campus so that the material they receive only they remember on that day. The mastery factor of the material is one of the main factors that cause students to cheat during exams. Students want to get high scores but do not understand the questions given, so dishonesty is one way students can keep getting high and underserved scores—Supervision during the exam.

This is by research by Masada & Dachmiati (2016), which states that the learning process and understanding of teaching material also affect learning outcomes during the material evaluation test. It does not achieve specific and general learning objectives. This aligns with Friyatmi's (2011) research, which states that students put forward when the supervisor catches them cheating because they do not understand the material. The mastery factor of the material is a determining factor for the first cheating behavior that has a more significant influence than other factors. At the same time, the second factor that determines cheating behavior is the learning method factor. Mastery of material and learning methods are internal factors that significantly influence a person's behavior.

The results of the analysis of the chemistry student honesty questionnaire at the time of the exam

The data from this study were also obtained from a questionnaire on the character of honesty and responsibility of chemistry students during the exam. The results of the questionnaire analysis on the honesty and commitment of chemistry students during the exam can be seen in **Tables 4** and **5**.

Table 4. The results of the analysis of the chemistry student honesty questionnaire at the time of the

Score Interval	Frequency	Categories	Percentage (%)
46. 00 – 54. 00	3	Less	7.7
55. 00 – 63. 00	18	Moderate	46.2
64. 00 – 72. 00	16	Good	41.0
73. 00 – 81. 00	2	Very Good	5.1
Amount	39		100

Based on **Table 4**, it is necessary to consider the Likert scale assessment to analyze the honest behavior of students. The results obtained indicate that the student's honesty at the exam is included in the Enough category with a percentage value of 46.2%.

Table 5. The results of the analysis of the questionnaire
on the responsibility of chemistry students during the exam

Score Interval	Frequency	Categories	Percentage (%)
47. 00 – 53. 00	5	Less	12.8
54. 00 – 60. 00	17	Moderate	43.6
61. 00 – 67. 00	12	Good	30.8
68. 00 – 74. 00	5	Very Good	12.8
Amount	39		100

Based on **Table 5**, data has been obtained that students responsible for the exam are still lacking, where the percentage value obtained is only 43.6% in the excellent category. Based on the questionnaire results on the honesty and responsibility of chemistry students at the time of the exam, the results of this questionnaire are by the results of the observation sheet of student observations during the exam. This can occur due to supervisors who are less assertive at the time of the exam, students who do not prepare before the exam, because they want to get high scores but do not study before the test, the high level of laziness possessed by students, the divided student focus with the courses to be is tested on the same day, and does not repeat the material that has been obtained during the lecture process. This is in line with the research of Pujianti & Lestari (2010), which states that cheating behavior is carried out by those who do not want to study hard, are less diligent, and feel less confident about their abilities, but want to get high scores on exams. Cheating can also be driven by concerns about not getting high or not graduating grades, wanting to graduate quickly, and improving rates to make parents happy. A supportive environment, namely cheating friends and the lax behavior of supervisors during exams, is also an incentive for students to cheat.

But not all students commit fraud; some students are still loyal to their attitudes and convictions, such as students who have made notes from home to see the answers on these notes when they cannot answer exam questions but do not open or cheat. The message is that they are afraid of cheating and still believe in the character of honesty they have. The reason for behaving honestly is that he wants to know how far self-competence is mastered in the academic field, get good grades, and understand the material to answer the exam correctly according to his competence without cheating. Some chemistry students also show the character of responsibility during exams, such as reporting to the supervisor when they see a friend who is cheating, taking the test calmly and not causing a fuss on the exam, and doing the exam on time. This behavior is carried out by students who uphold the values of responsibility.

Finding honest people is getting more complex nowadays. The values of honesty are no longer the essence and guide of a person's life but have become a tool to fight for various narrow interests. In other words, honesty, which should be an ethical value that colors our lives, has been reduced to being a lip-sweetener in people's lives, while their behavior and actions are far from the importance of honesty (Sujadi, 2017).

Semester 1 students are students at the age of 19 years or are in the adolescent phase. A person is mature enough physically and mentally to reach maturity at this age. So that various matters related to fraud can be avoided and resolved by themselves. Based on the results of the research that has been done, it was found that there are still students who are unable to face the exam situation with the maturity they have by showing dishonesty and being unable to take responsibility during the exam. These findings are by Budiningsih's (2004) opinion, which explains that adolescents have behaved according to conscience so that guilt will become a person's moral decision. Then the research results of Jensen et al. (2001) shows that high school students are more tolerant of academic dishonesty and are more inclined to commit cheating than students in tertiary institutions. This indicates that the higher the level of education, the higher the behavior of honesty in academics is enforced.

Based on the description above, it can be seen that the level of honesty and responsibility of chemistry students at the time of the exam is in a suitable category. This is shown by students who still commit various cheating during exams. For example, exchanging answers with friends by exchanging answer sheets, browsing answers on the internet, asking for answers via the Whatsapp group, and opening notes brought from home. This shows that the honesty and responsibility of students must be further enhanced by maximizing teaching programs on campus related to character education (in this case, the values of honesty and responsibility) such as religious education and moral education on campus, besides that it also provides sanctions against students who act dishonestly and are not responsible when the exam is in progress. Messi & Harapan (2017) states that maximizing roles and responsibilities require a willingness to invite stakeholders in the world of education to take responsibility to form a character with a character and commitment.

Conclusion

Based on the research results obtained, it can be concluded that the honesty and responsibility of

chemistry students are in the "sufficient" category with percentage values of 43.6 and 49%. The factors that cause the honesty and commitment of chemistry students are in a suitable category due to the lack of self-awareness of the students themselves, lack of student curiosity about the material given, not studying before exams, lazy to study, because they want to get high scores, unfocus with other courses that will be tested on the same day.

Acknowledgment

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