

## INCREASING STUDENT RESPONSIBILITY THROUGH THE APPLICATION OF NUMBERED HEAD TOGETHER BASED ON STUDENT WORKSHEET

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**Abstract** : *Student responsibility is one of the attitudes that is expected to exist in students in carrying out learning. The attitude of responsibility will be seen in how students carry out their duties and obligations optimally the responsibility of students in learning is still a problem. In a study conducted on grade 8 students in a private school in the Tangerang area, it was found that student responsibility was low. This study uses a qualitative approach with a type of case study. The research results show that numbered head together model carries student-centered learning by applying 4 stages. The planning and numbering stage is the stage that supports the next stage. At the stage of thinking together, students have discussions in groups so that there is an increase in responsibility to be active in discussions. At this stage, students work on worksheets with focus and caution so that students' responsibilities in doing assignments carefully also increase. In the answering stage, students will be randomly selected based on the numbers on their respective worksheets so that students are ready to be called because students are already responsible for completing the assigned tasks on time. This research is expected to provide real solutions to the problem of student responsibility.*

**Keywords** : *Student Responsibility; Numbered Head Together; Student Worksheet.*

**Abstrak** : *Tanggung jawab siswa merupakan salah satu sikap yang diharapkan ada pada diri siswa dalam melaksanakan pembelajaran. Sikap tanggung jawab akan terlihat pada bagaimana siswa melaksanakan tugas dan kewajibannya dengan maksimal. Tanggung jawab siswa dalam belajar masih menjadi masalah. Dalam penelitian yang dilakukan pada siswa kelas 8 di sebuah sekolah swasta di wilayah Tangerang, ditemukan bahwa tanggung jawab siswa rendah. Penelitian ini menggunakan pendekatan kualitatif dengan jenis studi kasus. Hasil penelitian menunjukkan bahwa model numbered head together mengusung pembelajaran berpusat kepada siswa dengan menerapkan 4 tahap. Tahap perencanaan dan penomoran merupakan tahapan yang mendukung tahapan selanjutnya. Pada tahap berpikir bersama, siswa melakukan diskusi sehingga terjadi peningkatan tanggung jawab untuk aktif dalam diskusi. Pada tahap ini juga, siswa mengerjakan lembar kerja dengan fokus dan berhati-hati sehingga tanggung jawab siswa dalam mengerjakan tugas dengan cermat juga meningkat. Pada tahapan menjawab, siswa akan dipilih secara acak berdasarkan nomor pada lembar kerja masing-masing sehingga siswa sudah siap dipanggil karena siswa sudah bertanggung jawab dalam menyelesaikan tugas yang diberikan tepat waktu. Penelitian ini diharapkan memberikan solusi yang nyata atas permasalahan tanggung jawab siswa.*

**Kata Kunci** : *Tanggung Jawab Siswa; Numbered Head together; Lembar Kerja Siswa.*

## INTRODUCTION

The process of education for every human being is fundamental. Education aims to shape and bring people to individuals who are faithful, knowledgeable, creative, independent, have a noble character and have an attitude of responsibility as citizens (Haryanti et al., 2022; Pasani et al., 2017). Based on these goals, the purpose of education is not only to create cognitively capable human beings but also effectively and psychomotor. This is in line with the objectives of Indonesian education, namely developing abilities and forming dispositions to educate the nation's life and foster a dignified national attitude so that education in Indonesia tends to prioritize attitude formation and character transformation (Kerr et al., 2006; Sujana, 2019). The efforts applied in education to achieve this goal are through character education that will shape student attitudes. Character is a way of behaving towards God, others and towards oneself (Wibowo et al., 2022). In character education, the essential attitudes to be formed and held are devotion, responsibility, honesty, discipline, tolerance, creativity, hard work and love for the homeland (Fadilah, 2013). Through this, character education brings and accustoms students to have a good attitude in every aspect of life they do.

One of the attitudes that reflects a person having a good character is an attitude of responsibility (Sumiati et al., n.d.; Retnawati, 2019). Responsibility is an obligation in a person to complete the task optimally (Rahayu, 2016). In education, the attitude of responsibility of students is needed so that educational goals can be realized. Less than optimal results and lack of self-recognition are the result of a lack of responsibility in each student (Syafitri, 2017). Through this it is necessary to form student responsibilities continuously so that responsibility can be embedded in students.

Student responsibilities include responsibility towards themselves and to the surrounding environment. This is in line with the opinions of Maolia, Bramasta and Andriani (2020) who stated that student responsibilities include caring for themselves and others, performing obligations and contributing to the surrounding environment. Romadona, Amelia, & Sutisnawati (2021) aid that student responsibilities include making preparations, using time effectively, accuracy in questions, conducting discussions and doing personal tasks given by teacher. This is what should be seen in every student as a form of their responsibility in learning.

The reality is that students' attitude of responsibility is still a problem in learning (Namik Kemal University et al., 2017). Based on observations made by researchers in grade 8 at a private school in the Tangerang area. One of these schools is one of the research sites that fits the research theme because it is one of the schools that is easily accessible and has a heterogeneous variety of students, so it is suitable for researching this section. The responsibility of students can initially be seen that there are still many students who are less

responsible in learning. The facts obtained in the observation, the lack of responsibility of the student in using the allotted time to complete independent tasks. This can be seen from the analysis data carried out by teachers through one of the online learning platforms (Kerr et al., 2006). There were 10 out of 23 students who did not do the exercises requested by the teacher and the lack of accuracy of the students in doing the given questions. The accuracy of students in solving questions is still low, as can be seen from the students' mistakes in reading the questions given in learning so that they are wrong in choosing the answers that should be chosen. It can be seen in previous practice that students already understand the given concepts, but at the time of practice students are in a hurry which causes students' lack of accuracy in solving questions. In addition, it was found that 9 out of 23 students did not discuss when the teacher asked the students to discuss with friends. Based on the facts that have been presented, it can be identified that the low attitude of student responsibility can be seen from the lack of awareness of students to perform personal tasks, prepare before studying and conduct discussion activities with groups.

This responsibility problem also seems to be a real problem in education. Research conducted by Arbainah (2019) at a high school in Banjarmasin, he stated that the condition of student responsibility in learning is still low so that learning outcomes are less than optimal. In addition, another study conducted by Rahayu (2016) in one of the elementary schools in Panganjuran Kudus, he stated that the attitude that must be formed from education in the school is an attitude of responsibility because this attitude is still very low in students in the school. Based on previous research and observations made by researchers in this study, responsibility is very much needed in learning, but there is still a low responsibility of students in learning. Therefore, a teacher must be able to create meaningful learning by bringing a new learning model in learning, one of which is by using this numbered head together model.

The efforts made by researchers in this study to develop student responsibility attitudes by conducting Numbered head together (NHT) type cooperative learning. According to Bintari (2017) NHT is one of the learning alternatives or models that can be used by 7 teachers to involve students in learning and be student-centered. NHT brings students to problem solving in groups within a set time frame. Setiyana (2018) stated that this NHT learning model aims to train students to have an attitude of responsibility in doing the work given in solving problems seriously. This model gives each student the same agreement to build ideas together and discuss the most appropriate answer (Retnawati, 2019). This is unique about this model because it trains students to listen well, do questions appropriately and students can share information with other students so that students will be led to more productive learning than other learning. Based on this, it is hoped that the

application of this model can be used as a solution to the problem of student responsibility in the classroom so that students are able to be more responsible in learning. In addition, this study is expected to provide significance to educators so that they bring learning not monotonous but are able to bring student-centered learning by using this model with the advantage of giving the same responsibility in each student.

## **METHOD**

The approach used in this study is a qualitative approach with a type of case study. This approach is used to understand the phenomenon of applying numbered heads together (NHT) based on student worksheets. The research design is directed at an in-depth longitudinal examination of a situation or event regarding implementing the numbered head together (NHT) based on student worksheets to increase student responsibility. In this study, the researcher was a key instrument in collecting and analyzing data. The data used in this study are observation sheet data, learning implementation plans, student learning outcomes and worksheets used by students (Yusanto, 2020). This research begins with determining the phenomena to be researched in the classroom and determining the subject to be studied. Furthermore, the researcher collects the required data instruments and then analyzes them according to the facts contained in the data.

This study used data collection techniques in the form of direct observation by researchers in the classroom. The observations made in this study are experimental observations in which the researchers want to see how the influence of the student worksheet-based numbered head together model on increasing student responsibility. The data analysis technique used in this study is descriptive analysis. This analysis is carried out by looking at the differences in data shown before and after the study so that conclusions can be drawn in the study. The data that has been collected in this study is checked using reference adequacy techniques that support the data that has been collected by the researcher.

## **RESULT AND DISCUSSION**

Responsibility is a natural attitude in human life (S. P. Sari & Bermuli, 2021). This shows that every human being has an attitude of responsibility in his life naturally and essentially. Man is the only unique creation of God and has an attitude of responsibility within himself. It is important for students to have a good and correct responsibility to support learning success, namely smart, noble personality, and character. Based on table 1, it can be identified that the low attitude of responsibility of students can be seen from the lack of awareness of students to do personal tasks, prepare before learning and conduct discussion activities with groups.

**Table 1: Results of Observations Related to Student Responsibilities in Learning**

No	Aspects measured	indikator	Statement
1.	Student Responsibility	Be active in group discussions	There are 3 groups formed when the teacher gives directions to discuss. However, there are 9 out of 23 students who do not have a group and do not want to discuss even though the teacher has made an invitation to discuss in private.
		Do the Questions carefully	Students have not been able to do the questions carefully. This can be seen from the review using kahoot conducted by the teacher.
		Collect tasks on time	10 out of 23 students were late to collect independent exercises.

Learning in the classroom requires a good attitude from a student. Attitude is a state of feeling, thinking and acting within a student which can be in the form of acceptance or rejection of something (Mulyana et al., 2013). This is in line with the opinion of Riwahyudin (2015) who states that attitude is a person's ability to reject or accept an object based on the assessment of the object. Therefore, an attitude is an action that comes out of a person towards an object can be in the form of rejection or acceptance of the object. One example of a good attitude in learning is the attitude of responsibility.

Responsibility is the awareness of human beings in intentional or unintentional actions or behaviors and is the embodiment of awareness of their duties and obligations (Murtado, 2020). Student responsibility is the behavior or attitude of students in carrying out tasks and obligations that must be done both to God, others, and also to themselves (Susilawati & Zwastikawati, 2020). So, student responsibility is the attitude or behavior of students in carrying out their duties and obligations with maximum ability both to God, others, and themselves. Student responsibility becomes the embodiment of the obligation that exists in each student in learning.

To see the responsibility of students in learning can be used several benchmarks in learning. Indicators of students being responsible are (1) doing personal tasks well, (2) being responsible for all actions done, (3) being involved in working on group tasks with discussions, (4) and using every available time effectively (Melati et al., 2021). In addition to the above indicators, Rahayu (2016) mentioned that the indicators of student responsibility are (1) using the time given effectively, (2) conducting independent preparation before learning, (3) doing individual tasks well, (4) conducting discussions in groups, (5) and doing the given questions carefully. Based on the presentation of the theory above, the indicators of responsibility used in this study are (1) students are active in group discussions, (2) doing questions carefully, and (3) students on time in collecting assignments.

The NHT model is a learning model in which students are placed in the main or dominant position in learning with the numbering of students in group (Muliandari, 2019). NHT is a model that leads students to work together to solve problems in a group and each member in the group gets a number (Yenni, 2016). Based on the understanding of the NHT model according to the experts above, it can be concluded that NHT is one of the models in student-oriented cooperative learning by means of discussion or working together in a group and each group member gets a different number for each member in the group.

In the implementation of learning, there are many media or learning resources that can be used by teachers to support learning (Angrayeni et al., 2020). Falah, Hartono and Yulianti (2017) stated that student worksheet are learning media that usually contain practice questions or summaries of material. Worksheet is one of the learning media or resources that can be used by teachers in learning that contains problems or summaries of material and is given to students.

Based on the above. The numbered head together model based on student worksheet is one of the cooperative learning models where this learning emphasizes group discussions so that learning is student-oriented and uses worksheet as a medium used in group discussions. In its application NHT uses several implementation steps. The steps for implementing NHT according to Solikha and Nurtamam (2021) start from (1) the planning and preparation stages of things needed in the application of NHT such as lesson plan and worksheet (2) the implementation stage, the teacher divides the students into several discussion groups and is given a different number to each student then students are asked randomly to give group answers, (3) the closing stage, the teacher gives questions to each student to check the students' understanding.

This is in line with the opinion of Syarif (2022) who stated that the steps for implementing the NHT model are (1) the preparation stage, namely the teacher preparing the worksheet to be used, (2) group formation, namely the teacher divides students into several groups of 3-5 members and divides the numbers randomly in groups, (3) students choose learning resources or books to be used, (4) students discuss problems contained in worksheet which has been shared by the teacher, (5) randomly calling the group member number and continuing to give answers, (6) the student together with the teacher concludes the day's learning.

Based on the theory of the above experts, the NHT model can use the help of student worksheet in its implementation. Student worksheet become a tool in providing problems that will be answered together in groups. Based on the presentation of the implementation steps by the expert, the researcher concluded the steps in the application of the NHT model based on student worksheet, namely: (1) The planning stage, the teacher prepares worksheet that will be done by students and students prepare by studying the material. (2) The numbering stage, students are distributed in groups of 3-4 students and distribute worksheet that have been given different numbers to each member in the group. (3) The stage of thinking together, students have a discussion in groups to answer the questions given on the worksheet. (4) The answering stage, students are randomly selected based on

the numbers given from each group to answer the questions on the worksheet. The NHT model is not the only model that can be used but in previous studies it has proven that this model is effective in increasing student responsibility. Previous research stated that the NHT model is one of the solutions in increasing the attitude (Firmansyah et al., 2017; Pasani et al., 2017).

Researchers conducted research by applying the numbered head together model as a solution to increase student responsibility. Numbered head together is one of the models of student-centered cooperative learning that requires students to be responsible for solving problems by assigning different numbers to each group member (Yenni, 2016). Researchers apply this model with the help of student worksheet. Student worksheet are one of the learning media or resources that can be used in learning which contains a summary of the material or problems that must be solved by students (Falah et al., 2017; Nurdin et al., 2019). In its application, students are divided into several groups and solve the problems contained in worksheet in groups. Each student is given worksheet to work on and discuss in groups. Even though it is discussed in groups, students must work on and write down the results obtained on their respective worksheet as evidence that students do the assigned assignments well and are collected on time.

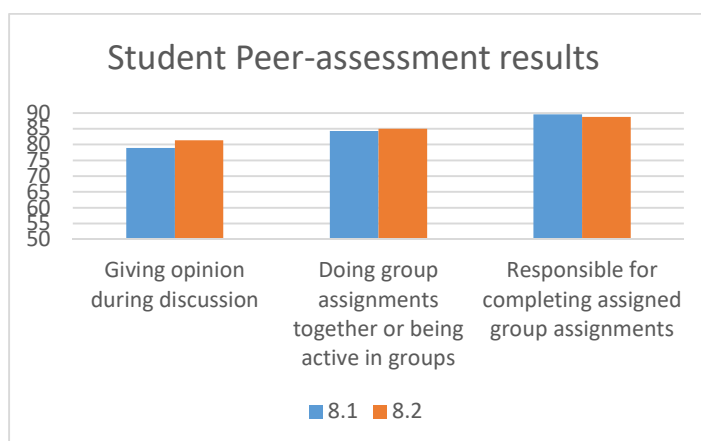
After the application of numbered head together carried out by researchers, it was found that student responsibility in learning increased. This can be seen from each stage of implementation in learning. The first stage that is carried out is the planning stage. At this stage, the teacher needs to design a worksheet that will be used by students. By designing teachers, they can create authentic worksheet and can be used in measuring students' abilities. As a teacher, it is important to plan and create media that helps achieve the goal of education. Authentic worksheet is a student worksheet that has gone through 4 stages, namely the stages of planning, development, evaluation and finally can be given to students (E. L. Sari et al., 2017). The worksheet created by the researcher has gone through these four stages and has been validated by validators so that it can be shared with students on learners.

The second stage is the numbering stage. At this stage, the teacher distributes worksheet that will be used by students. Giving numbers to students is done by distributing worksheet to students and in the previous stage, each worksheet that has been prepared has been given a number. The number in the worksheet becomes the number of each member of the group and the number is given differently for each member. Sumartono, Pasani and Sridevi (2017) stated that this stage the teacher gave a number to each member of the group with a different number. This step supports the achievement of indicators of conducting group discussions and the work on assignments by students because the worksheet will be used by students in discussions and the numbers obtained will be used in presentations that will be carried out randomly based on the selected number.



In the next stage, that is, the stage of thinking together. Students will discuss in groups to discuss problems on student worksheets. In this discussion process students are trained to have the responsibility to jointly complete group tasks and are also responsible for the whole group to understand what is being done. According to Sari and Bermulli (2021), discussion activities in groups become one activity that is a means for students to train their responsibilities. In the discussion process, students are already able to give opinions and be actively involved in the group. This is one of the manifestations of students' attitude of responsibility by being involved in group discussions. The involvement of students to be active in discussions can be seen directly based on the observations of the teacher. During the discussion process, the teacher observes the process carried out by walking around the classroom and visiting each group during the discussion. Based on the results of the teacher's observations, students have been able to actively discuss because students are able to discuss and discuss problems contained in student worksheets with a discussion time of only 10 minutes.

The increase in active indicators in the discussion is also supported by peer assessments carried out by students. Peer assessment is used by researchers as supporting data to assess the responsibility of students in the group because group members are responsible for assessing and are assessed by other group members. In addition, based on the chart above, students 8.1 and 8.2 can already be categorized both for the responsibility of carrying out group discussions according to peer assessments carried out in the group. Peer assessment is used by researchers to assess the responsibilities of students in a group because it is the members of the group who are responsible for assessing and being assessed by the rest of the group. This is in accordance with the statement of Sianipar and Irawati (2022) which states that peer assessment is an assessment that can be done to assess the learning process in groups and is one of the most effective techniques to shape the character of students.



**Figure 1: Diagram of Students Peer-assessment Result**

In addition to the active indicators in the group, the indicators of doing the questions carefully are also seen at the stage of thinking together. At this stage, students' study, and



work on student worksheet carefully so that the results obtained are in accordance with the expected completion. There is an increase in the accuracy of students before and after doing this stage. Before doing this stage, the accuracy of students in doing the questions was 49.29% and after doing this stage the accuracy of students increased to 95.74%. The increase in student accuracy can be seen based on the question work carried out by students at the given student worksheet. Every solution provided by students in student worksheet already shows accuracy, where students explain each step of student worksheet work in detail and in accordance with the instructions and directions requested at each student worksheet.

In the fourth stage, which is the answering stage, students have finished completing the discussion and filling out the worksheet independently. At this stage, students are randomly selected from each group to present the results of the discussions already carried out at the next stage. This random selection aims to make all students get the same responsibility in learning. Through random selection, students must be able to take responsibility for themselves and their fellow group friends to ensure that each group member understands the work that has been done. In this step, the indicators of students working on assignments on time can be achieved. All students present at the lesson have completed the worksheet given. The time given to students for 10 minutes is used well by students and this can be seen from the collection of student worksheet. Model Numbered head together can lead students to an increase in attitudes of responsibility. The 4 stages described above can be used as an effort to increase student responsibility in learning.

Other studies also state that the 4 steps in the numbered head together model can increase student responsibility. One of them is a study conducted by Hakim dan Yulia (2019) in one of the schools in the Parepare area. He concluded that the NHT model with the help of student worksheets is one of the cooperative learning models that brings students to the same responsibility and no student is more dominant in learning. Another research was also conducted by Wati and Suarni (2020) in one of the primary schools in the Buleleng area, she stated that the NHT model leads students to improve social attitudes, one of which is the attitude of student responsibility. This shows that based on the results of previous research and research conducted by researchers, the NHT based on student worksheet model can increase student responsibility in learning.

## **CONCLUSION**

Improving the attitude of student responsibility is one of the goals of developing attitudes in education. Students are expected to be able to have the responsibility to perform their obligations optimally in learning. One learning model is needed that can lead students to the improvement of learning models, one of which uses the numbered head together model. This model is effective in increasing student responsibility because this model gives students equal opportunities to learn and teach each other in learning and is responsible for

completing the learning process using student worksheets to the maximum. The implementation of this model using 4 stages can make learning meaningful so that increased student responsibility can occur. Each step in the numbered head together based student worksheet model is interrelated so that as an educator it is necessary to pay attention to every implementation in its stages. Based on this research, it is hoped that the numbered head together based on student worksheet model will be one of the real solutions that can be applied by educators in responding to the problem of responsibility in students.

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