The Influence of The Two Stay Two Stray Learning Model on The Responsible Character of Fourth-Grade Elementary School Students in Science Learning

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Abstract. The character of responsibility is an essential behavior for someone, including elementary school students, so they have this excellent character at school and outside school. This study aims to understand the influence of the two stay two stray learning models on the responsible character of fourth-grade elementary school students in science learning. This literature study was developed through various sources such as books, journals, and other literature related to the characters and learning models studied. In the two-stay-two-stray learning model, students must be responsible and active in every learning activity. This learning method can increase student communication in socializing and make the class atmosphere more lively. Apart from Increasing students' responsibility in carrying out their assignments so that their responsible character is also embedded in their daily lives, students can practice making assignment reports. In carrying out this model, the tributes different tasks to each group, where students must carry out the tasks well and correctly according to the teacher's order.'

INTRODUCTION

The character of responsibility possessed by elementary school students is still very lacking, which is indicated by students not wanting to be active and not being serious about doing their assignments. Bacon (Widiyasanti & Ayriza, 2018). He said that the character of student responsibility in schools is still low, which can be seen from the low student learning outcomes, lack of student activity, students often not carrying out their assignments, students not keeping their promises, even brawls or acts of bullying at school, so that achieving the expected learning goals is very difficult (Patmawati, 2018). The character of responsibility is considered very important for students, especially elementary school students, because it forms good character for their future lives. Working on questions and participating in learning are characteristics of responsibility that students must carry out. In current learning, the average student is not optimal in completing school assignments. This could be because they cannot focus on learning. After all, they are always thinking about gadgets at home, making them ignore the tasks given by the teacher. (Chasanah et. al: 2022).

Many learning models can be used to provide an engaging, enjoyable learning atmosphere, and are considered to be able to develop students' responsibility character, including the snowball throwing learning model, Team Games Tournament (TGT), Number Hand Together (NHT), Two Stay Two Stray (TSTS), Problem-Based Learning (PBL), Project Based Learning (PJBL), and many other learning models that can be used to support learning. In research (Septianicha et al., 2022), the weakness of the research has been revealed, namely that the responsible character of students is still low. This can be seen, among other things: 1) students are still not optimal in doing homework; 2) students do not complete the assigned tasks well; 3) students do not picket well. 4) Still always complaining about requesting a quick break and going home while the lesson progresses. Based on these problems, efforts are needed to improve the responsible character of students. Therefore, the author intends to conduct a literature review using a learning model that has previously been studied to cover the problems that occur, namely by using the two stay two stray learning model in science learning on the responsible character of fourth-grade elementary

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school students. One of the advantages of the two stay two stray models, which can increase student responsibility, is that students are formed in groups, and each group has different tasks. It will increase the students' cohesiveness and sense of responsibility for the tasks that have been directed (Suharyana, 2012). This literature review aims to determine the increase in the responsible character of elementary school students when the two stay two stray model has been implemented in the science learning process.

LITERATURE REVIEW
Two Stay Two Stray
The two stay two stray learning model is a group learning model that can influence the character of student responsibility because in this model, all students are required to be active and responsible for their respective tasks in learning to work together. The following explains several things about the two stay two stray learning model:

Understanding
The Two Stay Two Stray cooperative learning model is a learning model that provides opportunities for each group to share work results and information with other groups. Herawai (Sunbanu et al., 2019). Then, the two stay two stray type learning model can also be interpreted as a group learning system with the aim that students can work together, be responsible, help each other solve problems, and encourage each other to excel (Dhevi et al., 2019). The two stay two stray learning model is a group learning model where students are divided into several groups, each group consisting of 4 people, and each group is further divided into two, with the rule that two people stay in the group who are tasked with explaining the information or answers to the tasks given. The teacher to 2 guests who came from another group, while two people visited another group to find information on the assignment the teacher gave. This model can make students more responsible, work together, and be active in learning (Fitriyaningrum & Zuhdi, 2018).

Februeny (2014) says that Two Stay Two Stray (TSTS) is a cooperative learning model that allows groups to share results and knowledge with other groups. The TSTS is a group learning model that aims to ensure students have good teamwork skills, help solve problems together, and motivate other friends to succeed and be responsible. The TSTS learning model can be applied to all subjects so that the system is two at-home and two guests (Firman et al., 2020). So, it can be concluded that the two-stay-two-stay learning model is a group learning model where students are divided into several groups, each consisting of 4 people. Then, each group is divided into two, where two people are tasked with explaining information or answers to assignments given by the teacher, while two people visit another group to find information on the assignment given by the teacher. This model can make students more responsible for their respective tasks, work together, and be active in learning. The characteristics of this technique are: 1) students work in groups cooperatively to complete the learning materials; 2) the group is formed from students who have high ability, moderate, and low; 3) if possible, group members come from different races, cultures, tribes, and gender, 4) awards are more group-oriented than individuals (Rasdiana et al., 2018).

Steps for the Two Stay Two Stray Learning Model
In carrying out a plan or something, we need what are called steps so that the thing we are aiming for is in line with what we are targeting. Based on opinion Hendrawan(dalam Rahayu et al., 2020), The steps of the two stay two stray learning model include the following: (1) students work together in groups of four as they can; (2) after completion, two people from each group will leave the group and each group will leave the group and each visit the other group; (3) two students who live in the group are tasked with sharing their work and information with their guests; (4) guests excuse themselves and return to their group and report their findings from other groups; (5) groups match and discuss the results of their work.

According to Istarani (in Sunbanu et al., 2019) the steps for the two stay two stray learning model are as follows: 1) Students are grouped into several groups, each group consisting of 4 students; 2) The teacher gives different problems to each group and students discuss with group

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members the material that has been given; 3) After all groups have completed their assignments, two people from each group visit another group to listen to the results of the other group's work groups aree with their group; 4) Two people who live in the group are tasked with sharing work results and information from other groups who come to visit their group; 5) Guests return to their original group to report the results they got from other groups; 6) Groups discuss and discuss the results of their work. Besides that, (Hasanah& Himami, 2021) said that the steps in the two stay two stray learning model are: 1) Students work in groups of four people; 2) Once finished, two people from each group become guests of the other group; 3) Two people living in the group are tasked with sharing work results and information with their guests; 4) Guests excuse themselves and return to their groups and report their findings from other groups; 5) Groups compare and discuss the results of their work; 6) Conclusion.

Whereas Huda (in Indriasari & Fasha, 2022)expressed his opinion that the two stay two stray model has the following steps: 1) The learning process carried out by teachers and students, especially in the two stay two stray learning model, which is an action given to research problems, in the two stay two learning model activities These strays usually divide students into groups, namely 4-5 groups. The teacher's task in dividing groups is to be able to divide students heterogeneously or into one group consisting of students with high, medium, and low abilities; 2) The teacher's next task is that after dividing the students into 4-5 groups, the teacher then gives each group sub-topics that will be discussed by each group which will be discussed together in their respective groups which the previous teacher has distributed; 3) Students who have been given sub-topics, together with their respective groups are allowed by the teacher to discuss the sub-topics that have been distributed, students are required to be actively involved in the discussion. There are no students who appear dominant in the group. When students discuss, the teacher only supervises the activities of students in their group because, during the collaboration process carried out by students, it is the same as allowing students to think about solving the sub-subjects given to them. 4) After each group discusses the sub-topic given by the teacher, each student in the group is given their assignment. In the division of tasks, some students stay, and some students serve as guests. Students who serve as guests aim to get information from other groups regarding sub-topics that other groups have discussed; 5) Students who stay on duty aim to receive guests from other groups, and students who stay on duty share or provide information regarding the sub-subjects previously obtained.

Therefore, it can be concluded that the steps of the two stay two stray learning model consist of 1) The teacher divides students into several groups, each group consisting of 4 people, divided heterogeneously; 2) The teacher gives different tasks or problems to each group to be discussed in their respective groups; 3) Each group discusses the assignment given by the teacher; 4) After completing the discussion, each group is divided into 2, two people are tasked with visiting other groups to find information and two people are tasked with explaining the results of the discussion to the visiting group; 5) The visiting students ask themselves to return to their original groups to report the results they found; 6) The group discusses the results of its last discussion.

Strengths and Weaknesses of the Two Stay Two Stray Learning Model

Shoimin (in Dhevi et al., 2019) stated that the advantages of the two stay two stray learning model are as follows: 1) Easy to divide into pairs; 2) More tasks can be done; 3) Teachers can easily monitor; 4) Can be applied to all classes or levels; 5) The tendency for student learning to become more meaningful; 6) More activity oriented; 7) It is hoped that students will dare to express their opinions; 8) Increase student cohesiveness and sense of responsibility; 9) Students' skills can be improved; 10) Helps increase interest and learning achievement. The weaknesses of the Two Stay Two Stray learning model are: 1) This model requires a long time; 2) Students often do not like studying in groups; 3) Teachers need much preparation in terms of materials, funds, and personnel; 4) Teachers often have difficulty processing class (Sunbanu et al., 2019).

The advantages of the TSTS (Two Stay Two Stray) Model consist of 1) This learning model can be used for all subjects and all low and high classes; 2) This learning model gives freedom to one group to work together with other groups; 3) The results of thoughts from other groups will help students complete group assignments given by the teacher; 4) The TSTS method is very

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effective in the learning process because learning interactions between students continue as long as the group assignment has not been completed; 5) Increase student participation (activeness); 6) Strengthening unity or harmony; 7) Establishing Cooperation; 8) Train courage; 9) Train responsibility and independence. Meanwhile, the weaknesses of the two stay two stray models are as follows: 1) It takes a long time; 2) Students tend not to want to study in groups; 3) Because they are not used to it, they feel strange and difficult to work with; 4) For teachers, it requires much preparation; 5) Students who are clever control the course of the discussion, so that less clever students have fewer opportunities to express their opinions (Novitasari, 2018).

The advantages of the two stay two stray models are as follows: 1) applicable to all classes or levels, 2) students' learning tendencies become more meaningful, 3) familiarize students to be open to friends, 4) provide an opportunity for students to create creativity in communicating with friends of his group, 5) more oriented to students' thinking activeness, 6) increase student's motivation and learning outcomes, 7) provide opportunities for students to define their concepts by solving problems, 8) it is expected that students will dare to express their opinions, 9) increased cohesiveness and student confidence, 10) students' speaking ability can be improved, 11) helps increase interest and learning achievement. The disadvantages of the two stay two stray models are as follows: 1) it takes a long time, 2) students tend not to learn in groups. Those who are not accustomed to learning groups will feel alien and find it difficult to cooperate; 3) teachers require a lot of preparation (materials, funds, and labor); 4) teachers tend to have difficulties in classroom management; 5) like an ordinary group, students are good at mastering the course of the discussion, so the less able students have little opportunity to express their opinions (Rasdiana et al., 2018).

From the opinions above, the author concludes that the advantages and disadvantages of the Two Stay Two Stray learning model are as follows: Advantages of the Two Stay Two Stray learning model: 1) Can be used for all classes or levels and all subjects; 2) Students are brave in expressing opinions; 3) Improving learning achievement; 4) Increase self-confidence and responsibility in groups; 5) Can improve students' speaking skills; 6) The task can be done well. Meanwhile, the weaknesses of the two stay two stray learning models are: 1) It takes a long time; 2) The teacher will have difficulty dividing groups; 3) There is a lot that teachers have to prepare. Based on these advantages and disadvantages, learning can be done by covering these shortcomings with advantages and using them according to the situation, character, and conditions of the students at the school.

Responsible Character
Understanding

The character of responsibility is a person's attitude and behavior to carry out the duties and obligations that he should carry out towards himself, society, the environment (natural, social, and cultural), the country, and God Almighty. Daryanto and Darmiatun (in Patmawati, 2018). (Widita & Nurihsan, 2019a) Say that responsibility is the attitude and behavior of a person to carry out the duties and obligations he was supposed to do against himself and others and the surrounding environment. Lickona (in Yulianto et al., 2018) argues that "responsibility" literally means the ability to respond or answer.". That means "responsibility is oriented towards other people, providing a form of attention, and actively responding to what they want.

According to (Pratiwi et al., 2020), responsibility is an act of human attitude and behavior to complete the tasks and obligations that must be carried out towards oneself, society, and the surrounding environment. Responsibility is human awareness of intentional or unintentional behavior or actions that are natural, meaning that it has become part of human life that every human being is burdened with responsibility (Haris, 2017). Magdalena (in Elisah et al., 2018) describes responsibility as an action to be ready to bear everything that arises from doing a particular activity. The character of student responsibility can be formed through character education, which is carried out holistically and integrated through providing motivation, class rules, subject matter, group discussions, and reflection activities. Chiba(in Hajariah et al., 2022). So, the character of responsibility is the attitude/behavior of students in carrying out their duties

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and obligations towards God Almighty, themselves, friends, society, and the surrounding environment.

Responsibility Indicators

Responsibility has several indicators. According to Daryanto and Darmiatun (in Patmawati, 2018), Responsibility indicators are: 1) Making reports on each work carried out in the oral and written form; 2) Carrying out tasks without being asked; 3) Showing initiative to find out about problems within the immediate scope; 4) Avoid fraud in carrying out tasks; 5) Carrying out picket duties regularly; 6) Active participation in school activities; and 7) Proposing problem-solving. The indicators of responsibility include the following: 1) Effectively completing tasks and homework; 2) Assuming accountability for one's actions) Adhering to a planned timetable; and 4) Collaborating on group tasks. Several indicators can be used to assess an individual's level of responsibility (Widita & Nurihsan, 2019b).

According to Resti (In Purwati et al., 2023), these indicators include: 1) consistently choosing a morally upright path; 2) actively seeking personal growth and development; 3) upholding one's identity and reputation; 4) remaining vigilant and attentive to one's responsibilities; 5) demonstrating a strong commitment to fulfilling one's duties is executing tasks with high standards and quality; 7) taking complete accountability for one's actions) honoring commitments and promises made, and 9) displaying the courage to accept and face the potential risks of one's actions and words. Apart from that, responsibility indicators can be stated as follows: 1) Carrying out individual tasks well; 2) Accept the risks and actions taken; 3) Do not blame or accuse others without definite evidence; 4) Return borrowed items; 5) Admit and apologize for the mistakes made; 6) Keep promises; 7) Do not blame others for your own mistakes; and 8) Carry out what has been said without being told or asked. Kurniasih and Sani (In Patmawati, 2018).

Therefore, the indicators of responsibility are: 1) Can carry out tasks well; 2) Responsible for everything that has been promised or assigned; 3) Admit the mistakes made; 4) Bear the risks that occur due to their actions; 4) Dare to accept and face risks; 5) Stick to rules and commitments.

Science Learning

Science is an integrated content studied at all levels of education on an ongoing basis, as well as a collection of knowledge about natural phenomena that occur and are systematic. (Dewi & Negara, 2020). Science has three components, namely, as a product, process, and scientific attitude. Science as a product, what is mean in this case are facts, principles, theories, and laws. Science is a process. What is meant in this case is the procedures for solving problems using scientific methods, starting from formulating hypotheses to concluding. Science as a scientific attitude, what is meant in this case, is a scientific attitude that includes curiosity about natural phenomena, objects, and living creatures, as well as cause and effect relationships that can give rise to new problems and can be solved with the proper steps (Suja, 2014).

Science learning cannot be learned passively or simply by listening to the teacher explain learning concepts without active experimentation, observation, and testing to increase students' experience and activeness. Science is one of the main subjects at the elementary school level. Science learning includes knowledge in the form of facts, concepts, and principles obtained from experience, as well as the result of a series of processes through investigation, preparation, and presentation of ideas. (Fitrianingrum & Zuhdi, 2018). In other words, it means that science learning in elementary schools is one of the subjects given to students at the elementary school level. Science learning has a role in the educational process and technological developments. Science learning in elementary schools is expected to be a vehicle for students to learn about themselves and their natural surroundings in a broader context, especially everyday life (Dhevi et al., 2019a).

Mohan In (Jumriani & Prasetyo, 2022) explains that there are three essences of science learning: a body of knowledge, a way of investigation, and a way of thinking to understand nature. So, science learning is one of the lessons found in elementary school where the discussion of the

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material contains natural knowledge in the form of facts such as the state of living things, natural phenomena, the properties of objects, and so on.

In this literature review, the science material discussed is about various styles. Various styles are often encountered in everyday life. Examples include magnetic force, gravitational force, friction force, muscle force, and so on. By using the two-stay, two-stay, two-stray learning model, students can discuss the material with their respective groups and share information with other groups so they can master all kinds of styles in a short time. Students are free to express their opinions to each other in groups and are required to be responsible for the results of their answers. So, learning is not only done using conventional methods (lecture method) and is not only focused on the teacher. Students have more freedom to express opinions, are more confident, and are more responsible for their role as students or pupils.

DISCUSSION

A fundamental character that must be applied to students is the character of responsibility. Working on questions and participating in learning are characteristics of responsibility that students must carry out. Currently, the average student is not optimal in carrying out the assignments given by the teacher, and they cannot focus because they are thinking about gadgets at home, which makes them neglect the assignment. Responsibility is an educational activity in building human resources carried out by humans to educate and have a noble character for students. This character-building is to make students better themselves. Everyone has responsibilities from early to adulthood (Chasanah et al., 2022).

The relationship between the two stay two stray model and responsibility is that in learning using the two stay two stray learning model, students are required to have responsibility and be active in every learning activity (Marlina, 2018a). This learning model can be used to increase student learning responsibility in the learning process because each group is responsible for conveying information to guests. It can be used for all subjects and classes, and students are more enthusiastic about completing their assignments (Marlina, 2018b). The relationship between Two Stay Two Stray and the character of responsibility can be seen in the TS-TS (Two Stay-Two Stray) type cooperative learning model, which emphasizes students being actively involved in specific cognitive and social tasks. Apart from emphasizing student success in their academic skills, this learning model also emphasizes students' social skills. This learning model upholds social values, including students' responsible attitudes (Chasanah et al., 2016). Based on the advantages and disadvantages that occur during the learning process related to advantages and disadvantages, the advantages of TSTS are that student learning is more meaningful, increases student motivation and learning outcomes, provides opportunities for students to create creativity in communicating with their group friends, and increases student self-confidence (Nyoman et al., 2021). It can be concluded that the relationship between Two Stay Two Stray and the character of responsibility is that there is a burden of learning on students to carry out sharing and seeking learning by dividing groups so that it is hoped that students can carry out the responsibilities given to them. Continuous implementation will create a habit in students so that responsibility can become a character in individual students. Several activities that can be carried out in the application of Two Stay Two Stray to achieve the character of responsibility in students can be seen in Figure 1.
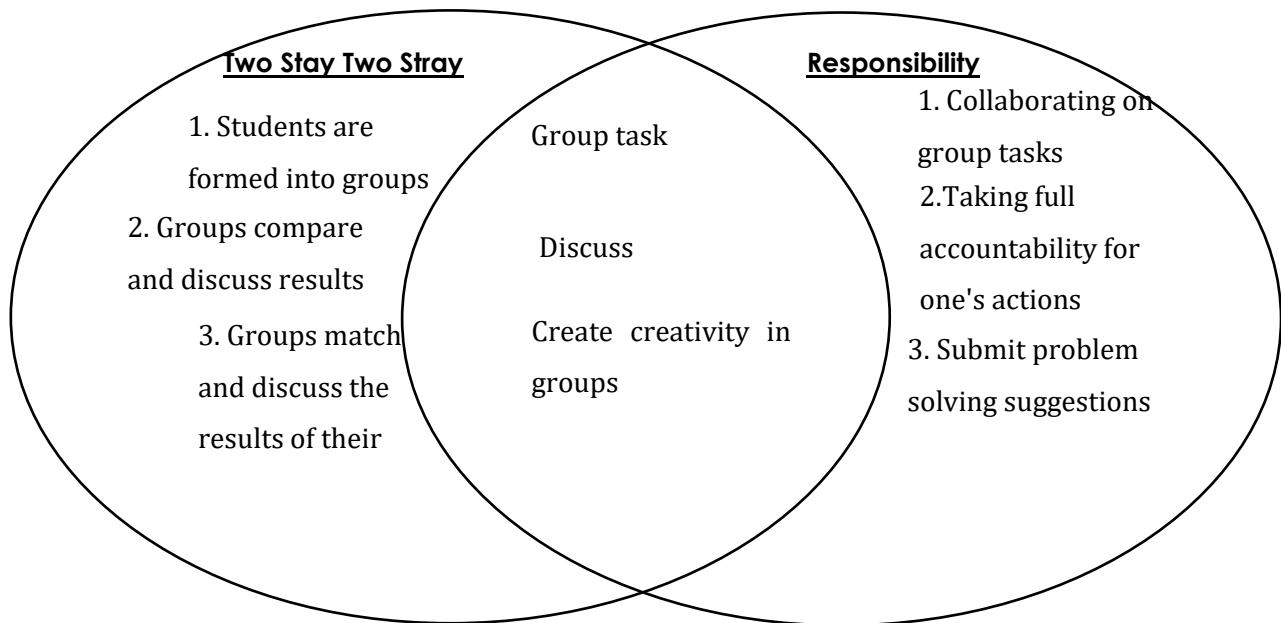
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Figure 1. Activities in the Application of Two Stay Two Stray Learning to Improve Responsible Character

CONCLUSION

The two stay two stray learning model is group learning which is very appropriate in improving the responsible character of students because in this model, students are required to be responsible for their respective tasks, with the aim that the results of the work of group members are attached to the assignment report and can be accounted for. Answer through the presentation. One indicator of responsibility that can fulfill the steps in the two stay two stray learning model is taking risks and having the courage to take responsibility for the actions taken in carrying out the tasks given by the teacher.

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