THE EFFECTIVENESS OF THE USE OF SCIENCE TECHNOLOGY AND COMMUNITY METHODS IN DEVELOPING SOFT SKILLS OF STUDENTS AT SMP NEGERI 4 BANGSALSARI

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ABSTRACT
This study aims to obtain a soft skill profile after the implementation of the science technology and society learning method. This is an illustration of the effectiveness of a learning method, one of which is the method of science, technology and society. The use of this research method uses a qualitative method where this research produces information through observation by looking at the performance of the use of this research method using the subject of SMP Negeri 4 Bangsalsari students. So it can be seen that the method of science, technology and society has effectiveness in developing the soft skills of students at SMP Negeri 4 Bangsalsari Jember. In other words, varied learning such as learning models of science, technology and society can improve ways of thinking, working together and solving problems.

Keywords: Development, soft skills, Science Technology and Society

INTRODUCTION
Education is a series of human activities in the direction of better individuals, namely in terms of cognitive, affective, and psychomotor. These efforts present an overview of the very important position of education as a solution in the direction of a meaningful standard of living. This is an expectation of every nation, as explained through The Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System, namely Education is a meaningful means with the awareness of a person in realizing the learning atmosphere and learning process to develop various potentials in himself, society, nation, and state.

The achievement that students expect in achieving perfection is through learning. Learning is an ability achieved through a person's activities to cause growth in himself (Sulfemi, 2018). Growth in a person has the intensity of concepts and practices as a natural process. This process produces a variety of knowledge collected due to experience and practice. Therefore, the ability to respond upon receiving the information has a significant influence on expected learning outcomes.

Learning outcomes are a series of activities involving physical and mental involvement to improve the quality of a person. In addition, students also experience changes from before and
after participating in learning (Nurrita, 2018) In addition, the learning results also show their skill in him. To bring himself more meaningful in everything.

The development of education reform through the use of a learning method approach is very important, especially in facing the era of globalization. The current National education system wants the potential of teachers and students to develop as a whole. This means that as long as the teacher is in charge, he is expected to develop the potential of students by adjusting to environmental conditions. In other words, teachers provide empowerment in the form of developing students with character and value. Education problems that occur in Indonesia itself become a shared responsibility when the quality of education does not improve. One of them is the application of teaching that is less so that students tend to experience awkwardness in the learning process. So to learn better, educators explore the potential in students, namely through interactions created by a teacher and by the conditions of students.

Students are humans who have a central position in teaching and learning so the position of students has attention that is the focus of a teacher during learning activities. Therefore, students an emphasis on the success of a teacher during the learning process, so teachers need to choose the right learning model or approach to the learning process.

The learning method is a conceptual structure in which there is a systematic direction of procedures so that learning activities are effectively organized to achieve the goals to be achieved (Wati et al., 2020) So with the learning model gets used as a guide for a teacher and students also feel the benefits of a learning model that feels more efficient with its development.

Students must also have soft skills that will affect the learning process later. Especially in the management of oneself as well as others. This shows that soft skills can equip a person when experiencing a series of processes in his life, including in the field of education. So optimizing the implementation of learning methods is one solution to increase students' sensitivity to their position when facing a problem they face. Therefore, sensitivity in them is very important, especially in what soft skills they will develop. Because educational activities have practices and experiences that can be produced by a science technology and society.

Thus, the development of maximum learning can provide understanding and mastery of knowledge, so that optimal coaching during the learning process can balance student soft skills with the concept of learning. The high expectations of a country become very relevant to the objectives of the current curriculum content, so the development into cognitive, affective, and psychological domain tasks prepare quality human resources.

The development of soft skills is very important in the success of the learning process because there are many series of activities that can shape the character of children such as experts in solving problems and being able to work together. These skills become very easy for students to follow the learning process that activates activities in the classroom. The benefits of the learning
model applied by the teacher can be used as a basis for producing optimal learning outcomes with the needs of students (Kiki Wihartini, 2019) Where the model chosen by the teacher also influences student motivation and student achievement. One of the models or approaches in learning are the Science Technology and Society approach.

The Science Technology and Society approach is an approach whose application provides real-life efficiency that exists in society and is then connected with the use of science and technology (Lilis et al., 2021). Where this is a means and effort in improving the development of soft skills owned by students.

Soft skills are basic behavioral attitudes that show a person's skills in relating to others as well as to himself. Soft skills have equipment in a person that includes motivational values, behaviors, habits, character, and attitudes. This gives an idea to educators that every student has a variety of hidden soft skills, so an educator must be able to develop student soft skills.

The influence of someone who has soft skills tends to have a significant influence on society. Because a person's soft skills are the benchmark for their acceptance in society, soft skills include ethics, morals, how communicate, and emotional skills. The skills that students already have are advantages for them to be able to optimize their own potential.

Balancing the education process in schools is very important to develop their soft skills because usually the lack of educators' attention to the development of students' soft skills. Because students can only be seen from their academic scores without paying attention to the soft skills that students have. So students need to have soft skills in their lives. These soft skills include common sense and a positive adaptive attitude in relating to others and oneself (SULIANTA, 2018) Therefore, this is a shared responsibility in the realm of education.

Studying the development of soft skills in the classroom, it can be done through the use of learning methods in Science Technology, and Society. This illustrates how effective students are in demonstrating their soft skills, when students are in real-life sensitive situations so that students have the maximum opportunity to develop their soft skills.

THEORETICAL STUDIES

Definition of Effectiveness

Effectiveness is shown in seeing the extent of learning objectives achieved by students, which is a benchmark in seeing the development of students in understanding material that is then able to be applied in everyday life.

The factors that affect the effectiveness of learning, among others, include:

1) Internal Factors, factors derived from the student himself, such as:
   a) The psychological state of the child, such as intelligence, talents, interests, and motivation.
   b) Physiological conditions of the child, such as from the child's health.
2) External factors, which come from outside, such as:
   
a) Instrumental factors, such as teaching materials, educators, and facilities.
   
b) Milieu
   
The position of learning approach has a position as a benchmark during the learning process. In it there is a process, namely accommodating, strengthening, inspiring, and guiding methods to the scope of a particular concept. The approach can be seen from two sides, namely the first student-centered approach, and the second teacher-centered approach (Poedjiadi, 2005)

   If you look at the stages of bloom's taxonomy related to the purpose of education, then the purpose of human formation has a fairly high level, namely from cognitive, affective, and psychomotor.

   The description of the value provided by bloom taxonomy is related to the soft skills of students.

   a) Cognitive value

   The process at the education level tends to spend time thinking and digesting various information that is obtained. However, cognitive nature does not only absorb various information but also how students process the information so that it can be applied in everyday life.

   Thus the cognitive aspect does not only refer to the standard of thinking, but rather to the process of individual change that arises after undergoing the learning process.

   b) Affective values

   During education, students experience a series of memorable experiences, so the learning process that has been passed by students can express their conditions. Therefore the position of the teacher creates a pleasant and skilled climate to cultivate an optimal affective realm.

   a) Psychomotor value

   The contribution of education does not only refer to cognitive, but education involves the psychomotor development of learners. So the role of the teacher needs to manipulate an effective learning environment so that the psychomotor position of students arises naturally.
Awareness of the importance of applying learning methods in learning focused on the fact that most students are only at the stage of receiving information, even though the position of students becomes a learning companion for teachers. This means that students have the right to show their various potential in the classroom by giving urgency to their quality.

This gives the view that the field of education is currently focusing on the quality of its students. Namely through a learning process that activates the role of students to always be sensitive to issues that are happening.

**Definition of Soft skills**

Soft skill is a skill or ability of a person in relating to people. Soft skills are part of a person's behavioral competence and in the form of interpersonal character (Giri, 2021). Soft skills that a person has themselves refer to a person's attitudes such as emotions, value systems, and feelings, but do not only refer to attitudes but the realm of knowledge, for example, a person's attitude in solving problems, thinking creatively, and being skilled in making decisions. This shows the big picture that this soft skill is characterized by the emergence of new ideas in a person.

Meanwhile, in terminology, the term soft skill can be defined with various definitions, including:

a) Soft skills can be described as the skills that a person has in relating to others and is also able to manage himself so that his advantages can grow his abilities to the maximum. So it can be said that soft skills show a very important side in controlling a person's emotions toward others and themselves (Sinta et al., 2019)

b) Soft skills according to Goleman are skills that are inherent in a person such as relationships with others and himself. These soft skills include values embedded in him such as habits, character, motivation, and attitudes. However, everyone's soft skills have different doses, which can be followed by habitual patterns of thinking, acting, saying, and behaving. The most important thing about this soft skill can be developed depending on how the person concerned practices in getting used to a more meaningful stage (Amin et al., 2021)

c) Soft skills are attitudes and behaviors, high motivation, honesty, the ability to adapt to all existing changes. This shows a person's performance in living life (SUTIANAH, 2021)

d) Soft skills, according to Bancino and Zevalkink, are sociological terms that refer to the source of personality traits, social, language skills, harmony, and optimism of a person at various levels (Rusmulyani, 2021)
Based on the definition of soft skills above, it can be concluded that soft skills are skills inherent in a person, both skills in relating to others and a picture of a person's personality. The personality has existed since they were born or through practice or habits and learning. Therefore, personality has a very important position because it is a person's initial path in developing potential in himself. In addition, soft skills have two categories, namely:

1. Interpersonal skill, meaning skill in relating to others. Motivation skill, meaning the
   a. Leadership skill, the ability to organize others to achieve the goals achieved
   b. Negotiation skill, ability to build deal-related relationships between two or more parties.
   c. Presentation, the ability to convey information in front of a large audience.
   d. Communication, communication skills with others.
   e. Relationship building, the ability to build good relationships with banyal people.
   f. Public speaking, the ability to communicate in public.
   g. Self marketing, kemampuan memasarkan produk dengan efektif.

2. Intrapersonal skill, artinya keterampilan ketika mengatur dirinya sendiri
   a. Time management, ability to manage time well.
   b. Stress management, ability to control less favorable conditions.
   c. Change management, the ability to condition change by adapting.
   d. Transforming character, ability to control patterns of picer, behavior, and attitudes
   e. Creative thinking, one's thinking ability in creating.
   f. Accelerated learning technique, Effective learning techniques.

Based on these two categories, giving a big picture of a person's soft skills is very diverse. So with various existing skills, it can be a carrying capacity in maximizing one's potential.

Soft skills become a part of students who exist outside of technical and academic abilities, which focuses on interpersonal. Some forms of soft skills in them are being open, and thinking critically. The more they can manage their soft skills at the education level, the higher the potential for success in success. Managing soft skills within oneself is very difficult, because managing habits is not easy. After all, it requires determination, especially in the learning process.

The following are indicators of soft skills developed are self-concept (self-efficacy), among others (Rosana et al., 2014)

a. Self-ascribed epistemic authority, perception of a person derived from his knowledge in a particular topic,

b. Self-efficacy, a measure of self-perception, is the belief that a person has the ability and/or skill to complete a task.

c. Outcome expectancy, that when one completes in one step closer to the desired result
Meanwhile, technology is a person's skill because of the concept so that a technology appears. Therefore, with the existence of a technology, one needs to understand in advance the concepts of science.

d. The relationship of technology with society,

Individual creativity provides essential things related to the results of their creation in the form of technology. This can be seen from the socioeconomic influence of the community that offers all technological advances. And on the contrary, technology changes people's behavior, namely from lifestyle, politics, and welfare caused by technology.

e. The relationship of science to society

Science is a human guide regarding its contribution to creating the welfare of society.

**Science Technology and Society**

The learning method of science technology and society is a learning method that collaborates with the situation of daily life, where its application is through solving problems related to daily life (Ahmad, 2012). As for science, it is meant by science in general, which in this case is the science of the fields studied. Meanwhile, technology is the embodiment of scientific concepts that have been studied. These technology products are created by the community to increase efficiency in carrying out daily activities.

The learning method of science technology and society has several components in it, namely (Lilis et al., 2021)

1. The skills demonstrated through arguments and examples encourage scientific reasoning.
2. Increase student motivation in exploring emotional and values in the relationship of data and facts.
3. The strategies offered provide a real understanding of the thinking patterns of peers, and from others.
4. Using field studies, information media is able to provide stimulus to students to study the surrounding conditions.

The science technology model and society have advantages in its application, namely:

a) Students' science literacy increases in having attention to the existence of science and technology in society.

b) Improved understanding of science is better. Improve the ability to think critically, be an expert in solving problems creatively.

However, the existence of community science and technology learning methods must have weaknesses in application, including:

1. Lack of supporting facilities, because in some schools there are minimal facilities
2. The position of students who are in low grades, has not been able to operate the existing science technology.
3. The position of teachers who have not mastered the science of technology will have difficulties in conveying information.

4. The relationship between the three components is the relationship between science and technology, the relationship between technology and society, and the relationship between science and society (Nuryanto & Badaruddin, 2019)

5. The relationship of science to technology

The existence of science and technology has an important role, especially in the world of education. This can be seen by the existence of a scientific basis that explains the concept.

RESEARCH METHODS

This research is qualitative descriptive research. The design becomes a process of producing a description of words that describe facts, characteristics, and situations related to certain fields of the actors involved, namely a natural picture in the form of words related to the effectiveness of using science learning methods Technology and Society in developing student soft skills (Suryabrata, S. 2016). The implementation examines the forms of soft skills possessed by students. Data collection through observation, interviews, to find out the potential soft skills of students. The variables reached include: self-awareness, thinking skills, communication, and cooperation skills. Researchers took place at SMP Negeri 4 Bangsalsari Jember.

DISCUSSION

Overview of SMP Negeri 4 Bangsalsari

SMP Negeri 4 Bangsalsari Jember started from SMP Negeri Tugusari which was born in 2011 which is located on Jalan JA. Wattie No. 63 Tugusari. During the establishment of the SMP Negeri 4 Bangsalsari Jember Tugusari school pioneered from scratch. This means that during its journey as a formal educational institution experienced a fairly long process. This can be seen from the beginning of the existence of students who are still relatively small in number. However, during the passage of time SMP Negeri 4 Bangsalsari Jember has progressed due to cooperation between the administrators of the educational institution.

In 2016 the superior issued a decree, where one of the decisions was to change the name of SMP Negeri Tugusari Bangsalsari Jember to SMP Negeri 4 Bangsalsari Jember.

Adapun nama guru yang bertugas di SMP Negeri 4 Bangsalsari Jember, antara lain:

f. Dr. Muhammad Isroil M.Pd (Kepala Sekolah)
g. Bayu Prasetyo Utomo. S.Pd
h. Arynda pramita sari S.Pd
i. Muhammad Yusuf Habibi S.Pd
Susunan organisasi SMP Negeri 4 Bangsalsari, antara lain:

i. Kepala Sekolah
ii. Wakil Kepala Sekolah
iii. Bagian keuangan
iv. Staf administrasi
v. Wali kelas

Use of Community Science Technology Learning Methods

This research was conducted at SMP Negeri 4 Bangsalsari Jember by using community science and technology learning methods in the learning process. Where the application involves a teacher who has a teaching task. Several teachers in SMP Negeri 4 Bangsalsari schools who have used community science and technology learning methods in their learning process gave statements in the following interviews.

According to the teacher's statement, it stated "When I apply science technology, and community learning methods in the learning process, I find an increase in my students, both through their activities and from student involvement in responding. Then I felt that the use of people's science and technology learning methods had a significant influence on their learning outcomes. So I think this method is very appropriate to be used by teachers today. Because it fits the needs of my students, especially in our school."

Based on the informant's statement above, shows that during the learning process using the science and technology learning method, the community increasingly has a level of activity and the ability of students to further develop their soft skills to the fullest. Therefore, the author can understand that from the teacher there is a certain satisfaction with the use of community science and technology learning methods in improving student learning outcomes.

In addition, this research is further strengthened by the statements of some students about the condition or atmosphere of the class in that students have been participating in. Here's his statement "During this lesson, ma'am. Honestly, I feel bored when I take part in learning in that style like the teacher only does lectures in front after doing the questions and so on, mom. Because when I listen to the teacher's mother explain in front, I often experience unbearable sleepiness, mom. So I often don't understand what my teacher is saying. But there is my teacher, mom, which makes me not bored in the classroom because the teacher when teaching not only delivers material, mom but like telling stories, making games, and making groups, which makes me happy,
mom and has a different impression when I follow he's learning”.

The results of the student statement above, the author found information that there are still teachers at SMP Negeri 4 Bangsalsari who teach predominantly with the lecture method only. So that indirectly students often experience boredom in the classroom. But on the other hand, the students also feel enthusiastic when there are teachers who teach more to liven up learning activities and their responses in receiving the information submitted. In addition, the statement gives the idea that with the presentation of the learning method of science and technology, the community provides support for an increase in interest in learning and curiosity. Therefore, the creation of a learning climate is very important for a teacher so that students are better able to develop their soft skills and optimal learning outcomes during the learning process.

Then the observation results in this study, show learning outcomes that can highlight the soft skills of students. Where this is by using science technology and community learning methods that apply to the learning process and activities at SMP Negeri 4 Bangsalsari Jember. In the application of science and technology learning methods and the community teachers carry out a series of learning processes that can revive an effective learning climate.

Learning conditions when using science and technology learning methods and society become more lively, meaning that the position of students is allowed to play an active role by taking a stand. This can be seen during the process of asking and answering that students convey to their teachers. This becomes a stage of exploration as well as a concept. Based on the observation picture above, the results of the application of science and technology learning methods are obtained and the community has a maximum relationship to improving the soft skills of students through their activities.

1. Discussion

The Ability of Science Technology Methods And Society In Developing Soft Skills Based on the theory that has been outlined by the author can take a focal point in the use of science technology and society in developing student soft skills. Where there is continuity in the use of models in the learning process, namely the existence of a significant influence in realizing quality students in all fields.

The influence of student activities in the learning process with the use of technology and community science learning methods in SMP Negeri 4 Bangsalsari Jember schools is formed from the role of teachers in directing students and stimulating their knowledge, so that the role of thinking together, creativity funds in problem-solving will be more lively. This is the opinion (Fauziah et al., 2021) the influence of student activities is in the direction of the teacher, where the
teacher has directed students to do activities and solve a problem. this gives an overview of the objectives of the learning process, namely forming the cognitive, affective, and psychomotor realm of students.

In addition, the learning process activities use technologic science learning methods and the community can experience a series of processes in it such as asking opinions, asking questions, and completing tasks given by the teacher. So if it is associated with various abilities possessed by students, it will be a trigger for the formation of competent soft skills (Sari & Purwanta, 2021) Thus these soft skills can be developed through learning in the classroom.

The learning carried out is not only conveying information but students are processed as well as possible, namely from attitudes and values to foster self-confidence in themselves. So with this stage, the soft skills possessed by participants can be managed naturally. Meanwhile, the characteristics of a teacher are indispensable in the stages of the learning process, so that the teacher becomes a point of success in the learning process that refers to the formation of potential students.

Indications of the learning process have changed, especially in terms of delivery. Nowadays, teachers need to understand the character of their students. Especially in strengthening the soft skills of students, because the integration of quality education has an influence on the quality of students which is still not paid attention to by teachers.

One of the models that can develop the soft skills of students is the learning method of Science Technology and Society. Where this method becomes alternative learning with a combination of daily life which is then connected to existing concepts, namely technology that is very attached to people's lives.

The development of soft skills through the learning model of science and technology and society is an effort to shape a person's personality with a sustainability process. This sustainability process starts with building a concept that will be applied, including a focus on organizing learning with a climate that supports the student learning outcomes cycle (SUTIANAH, 2021). So all efforts to maintain learning strategies include the structure of science-technology learning models and society that offers all forms of learning that activate the role of learners to be more sensitive to their potential. The collaboration of science technology and community learning models is one of the things in the scope of education that suits current needs. This can be seen from the learning that activates the real-life stories experienced by students so that the ability to study the surrounding life will increase. Therefore, education is oriented to the expertise program that every student has. Thus, the task of the teacher to hone the abilities of his students is very necessary, including the emphasis on the cultivation of attitudes, behaviors, norms, customs ethics, and aesthetic values obtained through the learning process, which can integrate and internalize attitudes, behaviors,
values, adab to one human being with another. Internalization is carried out for a long time starting from coaching, learning, and guidance. The goal is that what is obtained and done is by wishes and expectations.

In essence, the development of student soft skills must be based on real life, student activities, applications, and high-level thinking. Because in receiving information, an effective stimulus from a student is needed, so the task of the teacher is to arouse the confidence of students in every student activity during the learning process.

The formation process in this way is gradually able to explain the formation of student soft skills. So the time required is not short, meaning that it takes consistency for every teacher. The learning model has the main peculiarities or characteristics, namely in the stages of complete, systematic, and continuous learning. To provide efficiency in its implementation (Hafidz et al., 2019) The application of the community science and technology learning model has several steps, including (Shoffan Shoffa et al., 2016)

a) The teacher delivers the subject matter in advance along with the practical benefits that will be obtained by the students.
b) Explore issues or problems
c) Students are able to connect new learning with previous learning.
d) Analyze issues in society related to the material discussed.
e) The teacher inserts questions related to the issue or problem through the question and answer method to see the student's level of understanding.
f) In groups of students looking for solutions that are able to answer these issues.

This reflects that in the learning model, there are skills from a teacher when constructing various information through the learning model of science technology, and society (Irwanto et al., 2022) Thus with the design of such a science-technology learning model, the teacher can achieve the expected competencies. Community science technology is a learning method that seeks to build thinking skills, and develop students’ science literacy completely and by the development of science.

As for the characteristics of the science and technology of society, among others:

a) Prepare people who can use science in the stage of improving their own lives and in facing the increasingly complex world of technology.
b) Prepare individuals who are able to face the issues of society or technology responsibly.
c) Providing appropriate and conscientious forum for learners in showing opportunities to
d) Preparing students’ mastery in studying science in order to be able to face the issues that are happening.

In achieving this goal, teachers are able to create collaboration with students in facing challenges and components of community science and technology that can attract attention and hone various critical thinking skills, which fosters creative thinking, so that soft skills can be maturely honed (Warul Walidin et al., 2015)

The teacher explains more in theory than the student does his activities. Students have not been able to actively participate during learning, so they have not been able to improve 5M skills, especially creative thinking in learning activities. In addition, students lack the opportunity to develop thinking skills and a bold and confident attitude during learning (Rosana et al., 2014)

After the application of the community science and technology learning model carried out in the classroom, it can be seen from several observations that show the development of soft skills of students, including:

a) Think critically

This can be seen from the participation of students in giving challenging questions. This shows that with the application of the science and technology learning model, the community can provoke a big question mark to students through the issues presented

b) Work together

In addition to their sensitivity in thinking, students are able to cooperate with a group. This can be seen when it helps to give its opinion on an issue.

c) Think creatively

Students’ creative thinking arises when faced with the issue or problem presented, so that students are unconsciously able to provide a solution to a problem.

Based on the results of research that has been carried out through the application of science technology and the community is feasible and able to be used in terms of developing soft skills. So with the results of the observations above, it is support for researchers that the learning model of science technology, and society can provide student effectiveness in developing student soft skills.

CONCLUSION

From the discussion above, it can be concluded that there is a concrete relationship between the use of science and technology methods and society with the development of soft skills of students at SMPN 4 Bangsalsari Jember. Where the use of the STM method in improving student
soft skills in the form of presenting issues tailored to the material discussed can create activities, responses, and attitude taken by students in studying various information presented by teachers. In addition, the use of community science and technology methods has accuracy in developing the soft skills of students at SMP Negeri 4 Bangsalsari Jember, which is illustrated by the active role in developing students' way of thinking, working together and thinking creatively when faced with any situation.

DAFTAR PUSTAKA


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