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The National Science Olympiad and Its Impact on Improving the Quality of Education

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ABSTRACT

This study aims to clearly describe the implementation of the National Science Olympiad organized by the Faculty of Mathematics and Natural Sciences, Pattimura University Ambon and its impact on improving the quality of education. The focus of the research is the process of organizing the national science olympiad, and its impact on improving the quality of education. This study uses qualitative research. The data collection methods are observation, interviews, and documentation. The results of the study show that the National Science Olympiad involves elementary, junior high, high school, and vocational school students throughout Maluku with a total of 3,323 participants. The region, which is dubbed as a sea-based archipelago province, is not a barrier for students to compete to be the best. As a result, when students excel in a competition, the quality of education will be better. The supporting factors for the implementation of the National Science Olympiad are internal and external factors. Internal factors come from within students, while external factors come from the school environment and family environment. The inhibiting factors are the cost and location of the competition. Some of the implications of this research: Education Policy Design; Curriculum development; Teacher Training and Development; Increasing Student Participation; and Extracurricular Program Development. Research at the National Science Olympiad has made significant contributions to the following aspects: Development of Academic Knowledge; Improvement of Educational Practices; Support for Policy Makers; Motivation for students; and Strengthening Research Networks.

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1. INTRODUCTION

The future of Indonesia urgently needs competitive and creative abilities among students to compete healthily in mastery of science and technology. One of the activity programs that supports efforts to direct students' competitive abilities and creativity in mastering science and technology is coaching and mentoring the National Science Olympiad (Maris Kurniati, 2014). The National Science Olympiad (OSN) aims to get and develop talented students (Ogi Danika Pranata, 2023). This OSN activity is a benchmark for the success of a school in the field of science. Where schools are tested to be a brilliant team, which is not just a collection of intelligent people, but can encourage everyone to work harder, think more carefully, and reach better conclusions, in addition to relying on individual abilities (Mauliddin, 2018).

The National Science Olympiad is a form of academic competence that can develop student competence. This activity began in 2003 as a forum for students at the lower and middle levels to participate in science competitions. This activity was carried out as a vehicle for students to increase the spirit of academic competition and urge the courage to compete in a healthy manner while improving their expertise in the field of science (Department of Learning and Culture, Directorate General of Lower Learning, 2014). The goal is to acquire and improve talented students with character with international achievements. It is hoped that they will be able to contribute as pioneers of development through science and technology and to realize a superior nation. Furthermore, he explained, OSN is an event that allows students to be able to explore expertise in the field of science, where this competency consists of several fields, such as Mathematics, Physics, Chemistry, Informatics/Computers, Biology, Astronomy, Economics, and various other disciplines (Puspresnas, 2022).

The National Science Olympiad (OSN) has become a prestigious and strategic competition in increasing students' interest and abilities in the field of science. Organized by the Faculty of Mathematics and Natural Sciences Unpatti, OSN aims to explore the best potential of students and spur them to achieve achievements at the national and international levels. However, so far, there are still gaps in literature and research on the concrete impact of OSN on the quality of education in Indonesia. Although OSN has been running for several years and involves thousands of students in Maluku Province, in-depth research on the long-term effects of these competitions on the quality of education is still limited. Some research gaps to look out for include: Lack of Longitudinal Studies: Many existing studies focus solely on students' immediate outcomes or academic achievement after taking the OSN. However, there are very few studies examining the long-term impact of OSN on participants' academic development, careers, and contributions in society. Furthermore, research on how OSN affects teaching methods, teacher motivation, and curriculum development in schools is also still minimal. In fact, this influence is very important to understand how OSN can contribute systemically to improving the quality of education. The third thing is that the social and psychological impacts of participation in OSN on students, such as increased self-confidence, social skills, and learning motivation, have not been widely explored in research.

This research is important for several main reasons: First, Improving the Quality of Education: Understanding how OSN can contribute to improving the quality of education will help the government and other stakeholders in designing more effective policies for the development of science education in Indonesia. Second, Talent Development and Development: By researching the impact of OSN, better strategies can be found in fostering and developing students' talents in the field of science, so that the best potential of the younger generation can be optimized. Third, Systemic Influence: This research will also provide insight into how competitions such as OSN can affect the entire education system, including teaching methods, curriculum development, and teacher motivation, so as to create a more conducive and quality learning environment. Fourth, Policy Making: The results of this study can be used as a basis for decision-making and education policies, both at the school, regional, and national levels, to support more effective and sustainable education programs.

For UNICEF, the quality of learning includes 5 quality measures: learners, areas, content, processes and outcomes. There are several requirements to achieve the quality of learning: students must have good health and nutrition; teachers must be well trained and new compulsory education methods; educational facilities and modules must be sufficient; the curriculum must be relevant and depend on the expertise, knowledge, and experience of teachers and students; The area must be healthy and comfortable to encourage education. Not only that, family support for learning is very significant and the evaluation of educational outcomes must be accurately defined. In learning, a large level of quality means a large level of academic achievement among people. For Heyneman and Loxley, the quality of learning is a meaningful input from school achievement (Biltagy, 2013). The quality of the school is closely related to the achievements obtained by its students. Achievements here include academic and non-academic achievements (Faturohman & Afriansyah, 2020). The learning provided is in accordance with the growth of the 21st century, which is signaled by the emergence of data technology that is growing very quickly (Aslamiah et al, 2021). Skills that students must understand in the 21st century include critical thinking, problem solving, communication, cooperation, creativity and innovation. 21st century learning is more urgent in activities to train students' skills in educational activities (Mardhiyah et al, 2021). The ability of science and technology with great integrity values is one of the main provisions for the progress of a nation. Welcoming the period of globalization and leading to a new Indonesian order, the availability of quality Human Resources (HR) is needed, so that the Indonesian nation can compete in the world arena. The quality of Human Resources can only be improved through learning. Students as Human Resources learning products want to be of great quality if education is handled reliably, including a pattern of love and nurturing that is suitable for the guidance of the growth of science and technology (IPTEK). In order to produce a quality educational process in achieving optimal student competition and learning outcomes, students are obliged to constantly improve themselves in exploring various academic competitions (I Made Surat, et al 2023).

The Faculty of Mathematics and Natural Sciences (MIPA) of Pattimura University annually holds the National Science Olympiad (OSN) at the Provincial level which includes students at the Lower School, Junior High School, High School and Vocational High School levels. This research is interesting, because Maluku Province, which is known as an island-based archipelago province with a very long range of control from one region to another, does not dampen the enthusiasm and motivation for schools to participate in the implementation of the Olympics. For example, a State High School in Southwest Maluku requires a journey of 3 (three) to 4 (four) days to arrive at the race location. This matter is interesting, because for the sake of improving the quality of learning, schools in Maluku Province work hard and instill the spirit of struggle as the main capital.

Two previous studies that have been conducted are the National Science Olympiad at SD Muhammadiyah 9 Banjarmasin which revealed that the school's strategy in improving student competence through the science olympiad in elementary school is tried with 3 (three) methods, namely: selection and school selection for students who excel in grades 4 to 5; the coaching system is tried by scheduling on a certain day according to the set time and getting used to the agenda race; and the Science Olympiad coaching module familiarizes with each of the existing research fields, the module is universal from grade 4 to grade 6 (Elsa Yanti et al, 2023). The next research was at SD Negara 102 / Sei Kerjan Muaro Bango Regency showing that the results obtained by students increased significantly by the method of solving problems and analyzing problems (Tri Wiyoko et al, 2019). Previous research in the field of the National Science Olympiad has made a significant contribution in understanding how the position of the school community is the principal, teachers, students and parents so that it can improve the quality of learning. Research first looks at the process of coaching the national science olympiad. On the contrary, this research is different because the author directly looks at the implementation of the national science olympiad carried out by the Faculty of Mathematics and Natural Sciences, Pattimura University Ambon in 2024. As a result, the National Science Olympiad can improve the quality of education.

This article is important, interestingly this competition is open to all schools in Maluku Province from the elementary, junior high and high school levels. The number of participants who participated in this activity was 3,323 participants. Schools that are far from the competition location and have to travel for three to four days do not dampen the enthusiasm of students to be involved in the competition. Meanwhile, the previous writings only focused on the coaching process in preparation for the implementation of the National Science Olympiad. Thus, the focus of this research is to describe the implementation of the national science olympiad and its impact on improving the quality of education.

2. METHOD

This study uses a qualitative approach to explore and deeply understand the impact of the National Science Olympiad (OSN) on improving the quality of education in Indonesia. The qualitative method was chosen because it allows researchers to explore the phenomenon comprehensively and in-depth, as well as understand the perspectives, experiences, and views of participants, teachers, and related stakeholders.

This study uses a case study design to understand the OSN phenomenon in depth. Case studies allow researchers to collect data from multiple sources and investigate the impact of OSNs in specific contexts. The research participants consisted of OSN students, supervisors, and the OSN organizing committee. The selection of participants was carried out by purposive sampling, which is to select individuals who are considered to have rich and relevant information related to the research topic. The data collection technique was carried out by the researcher conducting an In-depth Interview: The researcher conducted a semi-structured interview with OSN participating students, supervisors, and the OSN Implementation Committee. This interview aims to explore participants' experiences, views, and perceptions regarding the impact of OSN on the quality of education. Furthermore, non-Participatory Observation: the researcher observes the participant without directly interacting with him. Furthermore, this documentation is used to complete the data from interviews and observations

3. FINDINGS AND DISCUSSION

Implementation of the National Science Olympiad

In the development of Science and Technology (IPTEK) which is very rapid globally, it also has an impact on the mastery of science sciences such as Mathematics, Physics, Chemistry and Biology. Thus, the celebration of the 26th Anniversary raised the theme of FMIPA Transformation: Superior, Character and Synergy with Alumni. One of the programs currently held is the 2024 Science Olympiad for elementary, junior high/MTs and high school/MA students throughout Maluku. The main objectives of OSN include: (1) a means of mapping students according to the field of science they are interested in; (2) a means to find outstanding students or superior seeds at the district/city, provincial, and national levels; 3) giving awards to students; 4) develop students' ability to think critically, creatively, innovatively, and be able to think at a high level; and 5) instilling the nature of competition, not easily despairing, and daring to try to students (INDONESIAN TALENT DEVELOPMENT CENTER, 2023). The National Science Olympiad carried out by the Faculty of Mathematics, Natural Sciences, Pattimura University is an annual program whose implementation is integrated with the celebration of the Anniversary of the Faculty of Mathematics and Natural Sciences in 2024. The activity was held on March 5-8, 2024. This activity is a forum to accommodate programs and events that support the implementation of the Tridarma of Higher Education. This is a manifestation of the concern of the Faculty of Mathematics and Natural Sciences, Pattimura University to increase the potential of the young generation in Maluku Province by carrying out Olympic activities. The fields that are contested for each level of education are as follows: elementary school level (Mathematics and Science), junior high school level (Mathematics, Physics and Biology), high school level (Mathematics, Physics, Chemistry, Biology, Statistics, Computer, Astronomy and Earth), with a total of 3,323 registered participants covering 9 districts and 2 cities throughout Maluku" (Interview with Mrs. Ivonne Telussa, March 5, 2024). This is in line with what was conveyed by the Acting Officer of FMIPA Unpatti that

"One form of implementing the tridharma of higher education is community service. The National Science Olympiad is an annual routine activity of FMIPA Unpatti. This activity is part of the implementation of the Tridarma of Higher Education. This activity is a manifestation of FMIPA in order to improve the quality of the young generation in the Maluku region. In addition, participants will get a good experience and also become a benchmark for schools to evaluate learning so that it is of higher quality and has an impact on improving the quality of education (Interview with Mr. H. J. Wattimanela, March 5, 2024).

Furthermore, it was said by the principal and teachers who accompanied the students in the implementation of the Olympics. The principal of Christian Masohi Elementary School stated , "This Olympics, we sent 10 elementary school students to compete. This activity is very good because from an early age children have learned to participate in competitions, one of which is the science olympiad. In previous years we have also participated and this time there were a lot of participants. The Faculty of Mathematics and Natural Sciences as the organizing committee conducts events whose impact on improving the quality of children in the teaching and learning process and the quality of education also increases" (Interview with Mr. Abraham Siahuta, March 5, 2024). The same thing was conveyed by the principal of SMP Negeri 2 Ambon that "In 2024 the Faculty of Mathematics and Natural Sciences will hold the national science olympiad at the Maluku Province level is very extraordinary because the number of participants is increasing from previous years. Our school sends 12 people to participate in the competition according to the subjects being contested. Then, from 11 city districts, all were involved because they were trying to show the best of the children. This activity is very motivating for children to take part in prestigious events. Hopefully, the Faculty of Mathematics and Natural Sciences Unpatti can continue to hold the Olympics" (Interview with Mrs. Siti Aripa Lessy, March 5, 2024).

The same thing was conveyed by a teacher of SMA Negeri 16 Central Maluku that "The national science olympiad organized by the Faculty of Mathematics and Natural Sciences in 2024, we sent 8 students for 8 subjects in the competition. For this reason, we are very grateful to the Faculty of Mathematics and Natural Sciences who have consistently maintained this event so that the implementation is routine every year. This activity has a great impact on improving the quality and quality of children's education in Maluku" (Interview with Mr. Kemil Latupono, March 5, 2024). The same thing was conveyed by the Principal of SMA Negeri 1 Southwest Maluku "The activities carried out by the Faculty of Mathematics and Natural Sciences Unpatti are very good. The implementation has an impact on students because it can spur students to improve their knowledge in the 21st century because students have additional hours outside school hours. This is due to the level of difficulty in the OSN questions. In addition, students can manage their study time as effectively as possible. This activity will have an impact on improving the quality and quality of education in the Maluku region" (Interview with Mr. Soleman Frans, March 5, 2024). The same thing was explained by one of the parents of the participants, namely "The implementation of the science olympiad organized by the Faculty of Mathematics and Natural Sciences in 2024 is very good. It can automatically improve students' thinking skills, students are more creative, and spur students' enthusiasm to learn both in groups and independently. This activity is also for the sake of improving the quality of education and the quality of education in the Maluku region. Moreover, the development of science and technology is very fast in the 21st century, so schools must have high competitiveness and be strong in facing today's educational developments" (Interview with Mr. Rishard Sinay, March 5, 2024).

From the explanation above, it can be concluded that the implementation of the national science olympiad organized by the Faculty of Mathematics and Natural Sciences Unpatti in 2024 is a form of implementation of one of the tri dharma of higher education, namely community service. This activity is routinely carried out by the Faculty of Mathematics and Natural Sciences Unpatti and provides space for all schools from the elementary, junior high/MTs and high school levels in Maluku Province to be involved in these activities. The development of science and technology in the 21st century is accelerating and requires mastery of science subjects to be prioritized. The Faculty of Mathematics and Natural Sciences Unpatti does this by competing in 8 (eight) types of subjects for elementary, junior

high/junior high and high school levels. When schools get champions, the quality of education also increases. The quality of education in Maluku will be better because of outstanding students. In the future, students in Maluku can improve and prepare students to compete at the national and international levels.

Figure 1. Race Process

Figure 2. Race Process

Supporting and Inhibiting Factors for the Implementation of the National Science Olympiad

In every competition, of course, there are supporting and inhibiting factors for its implementation. The supporting factors for the implementation of the national science olympiad of the Faculty of Mathematics and Natural Sciences Unpatti based on information from informants, namely "The main supporting factor is internal factors. The internal factors referred to here are from within the students themselves. Because students who are participants in the competition must be prepared as best as possible so that student awareness in learning is very important. We motivate students to study regularly if they want to give good results" (Interview with Mrs. Melani Tubalawony, March 5, 2024). The same thing was conveyed by the principal of SMA Negeri 1 Southwest Maluku that "For the

supporting factor in the implementation of the national science olympiad, the most important is the students who are involved in the competition. As a leader at the school, I always give directions to students to prepare themselves well, because everything that is done with seriousness will have an impact on good results as well" (Interview with Mr. Soleman Frans, March 5, 2024).

Supporting Factors	Inhibiting Factors
1. Internal Factors; From within the student Because students who are participants in the competition must be prepared as best as possible so that student awareness in learning is very important. Students continue to be motivated to study regularly if they want to provide good results. Thus, students are always given directions to prepare themselves well, because everything done with seriousness will have an impact on good results 2. External Factors; Teachers and Parents. Accompanying teachers play an important role in supporting the national science olympiad. Student success is the success of teachers who provide training for the field of study that is being contested. In addition, support from parents is very important. Teachers, provide training in schools for only a few hours, so students have a lot of time with their parents. The task of parents at home is to guide children so that they can study hard.	1. Control Range; This problem is caused by Maluku Province as an archipelagic province so that the range of control between one region and region has a great impact on the location of the national science olympiad. The center of the implementation of the national science olympiad is in the capital of Maluku province (Ambon city). For this reason, participants who are in the Southwest Maluku Regency, Tanimbar Islands Regency, Tual City, Southeast Maluku, Aru Islands Regency, Eastern Seram Regency, need 2-3 days to arrive at the location of the national science olympiad.

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As the results of interviews, observations and document studies, it can be concluded that with real motivation to learn, it will increase the potential of students. The quality of children is determined by the extent to which children can compete and get good results. The 2024 National Science Olympiad of the Faculty of Mathematics and Natural Sciences Unpatti is a place to prove the success of Maluku students who remain committed to learning and have a love for science. Encouragement from within and from outside students is a good motivation so that students continue to learn and develop so that they get good results. This is reinforced by the theory that "motivation is a physiological and psychological condition contained in a person that encourages him to do certain activities to achieve a goal in learning. Learning motivation can arise from within or from outside the individual. A person must have strong motivation, so that the achievement of the goals that have been set can be achieved optimally" (N. Setiani, et al, 2018: 17). The same thing was conveyed by other researchers, namely There are factors that affect student achievement. The supporting factors can come from external factors, namely first, the school, if the school has a place, school building, quality of teachers, educational instrument devices and the school environment affects comfortable learning activities, then student achievement will increase. Second, the family, the family is very influential on the success of the child. Parental education, economic status, residential home, percentage of parental relationships, words, and parental guidance, affect children's learning outcomes (Fara Hamdana and Alhamdu, 2015: 4).

Discussion

The National Science Olympiad and Its Impact on Improving the Quality of Education

The National Science Olympiad (OSN) is an annual competition organized by the Ministry of Education and Culture of the Republic of Indonesia for students at the elementary, junior high, and high school levels. The goal is to foster students' interest and talent in the field of science as well as improve their intellectual abilities and skills in solving scientific problems. This competition has begun to be developed by regions in the Province, City Regency and even universities. The Faculty of Mathematics and Natural Sciences, Pattimura University Ambon, is part of the implementation of this competition. Unusually, this competition was attended by all districts/cities in Maluku province. Its implementation has an impact on the quality of education both nationally and locally.

The impact of OSN on Improving the Quality of Education is:

1. High Learning Motivation

OSN carried out by the Faculty of Mathematics and Natural Sciences Unpatti provides motivation for students to study more actively and explore science material. This competition encourages students to not only understand theory, but also apply their knowledge in a practical context. As a result, students become more motivated to achieve higher academic achievement. Motivation is one of the factors that affect student success. One of the factors that affect student achievement is motivation. This is emphasized by Mc Donald in Kompri (2016:229) that motivation is a change in energy in a person's personality which is characterized by the emergence of affective (feelings) and reactions to achieve goals. With motivation, students will study harder, tenacious, diligent and have full concentration in the learning process. Motivation in learning is one of the things that needs to be aroused in learning efforts in schools (Hamdu & Agustina, 2011). According to Rahman (2021), a person will get the desired results in learning if there is a desire to learn in him. Motivation can serve as a driver for achieving good results. A person will do an activity because there is motivation in him. The existence of high motivation in learning will achieve optimal results. Thus, the implementation of OSN provides an opportunity for teachers to play an important role in increasing student learning motivation. Teachers not only teach, but are also able to provide motivation and guidance to their students (Huda, 2017). For teachers, knowing the motivation to learn from students is very necessary to maintain and increase students' enthusiasm for learning (Arianti, 2018).

2. Development of Critical and Analytical Thinking Skills

Through participation in OSN, students in Maluku Province are trained to think critically and analytically in solving complex problems. They learn to evaluate information, analyze data, and draw conclusions based on existing evidence. Critical thinking is the ability to analyze situations based on facts and evidence so that a conclusion is obtained (Agnafia, 2019). These skills are essential for success in higher education and future professional careers. According to Ennis (2011), critical thinking is a reflective thinking ability that focuses on decision-making patterns about what to believe, do and be accountable for. Critical thinking skills are indispensable because a person who thinks critically will be able to think logically, answer problems well and be able to make rational decisions about what to do or what to believe. Critical thinking is a high-level thinking skill that has the potential to increase students' critical analytical power (Susilawati et al, 2020). Therefore, developing students' critical thinking skills in learning is an effort to improve student learning outcomes. Because, Purwati et al (2016) stated that critical thinking is a process, aiming to make reasonable decisions about what to believe and what to do. Thus, the national science olympiad provides an opportunity for students to think critically in answering questions quickly and precisely. According to Asih & Hasanah (2021), through science, students are able to show their ability to continue to think and reflect on what events occur in the daily world. That way, science can direct and encourage children to become creative, systematic, critical and initiative students.

3. Improving Educational Standards

With the OSN, educational standards in schools in Maluku have increased because teachers and educational institutions are trying to prepare students as best as possible. A special training and preparation program is organized to support students in facing this competition, which overall improves the quality of teaching and learning in schools. Curriculum, learning, technology must be mastered by teachers and even students. The goal is that in order for schools to quickly adapt to the development of educational technology, especially in administration and learning processes (Reza & Syahrani, 2021), of course, it needs standardized educators (Yanti & Syahrani, 2021) who master (Aspi & Syahrani, 2022) the content standards and standards of the educational curriculum process in Indonesia without mastering teaching technology, it feels like intensive coaching (Syahrani et al., 2022) carried out by educators in the context of developing the skills of their students have a chance to not be maximized (Rahmatullah et al., 2022), even educator standards should also lead to digital mastery (Ahmadi & Syahrani, 2022), because everything that is internet-based feels greater (Syahrani, 2021), internet-adaptive learning is currently considered a modern institution (Syahrani, 2022) is considered more advanced in terms of facilities, skills and management (Syahrani, 2022) because agencies with this model (Alhairi & Syahrani, 2021) look better prepared to face the times (Syahrani, 2022) and are considered ready to compete with the outside world (Shaleha et al., 2022), because they are used to and adaptive to information technology that continues to develop (Syahrani, 2018). In addition, to improve the standard of education, the principal plays an important role in providing opportunities for students to be involved in competitions. The leader who leads a school is called the principal who coordinates all residents, namely teachers, education staff, and students in the school, with the goal of improving the quality of the school (Latifah, 2022). Talking about improving educational standards, it is inseparable from the quality of schools. OSN will have an impact on the quality of the school, where in the process of implementation, the activities that must be carried out are developing extracurricular materials and activities (Gustini & Mauly, 2019).

4. Talent Identification and Coaching

Talent is a person's capacity from birth, which also means the latent ability that a person has as the basis of his or her real ability (Asaribab & Siswantoyo, 2015). OSN also serves as a means to identify students who have exceptional talent in the field of science. Therefore, it is necessary to know the characteristics in a person or individual in order to obtain a maximum achievement (Arifin et al, 2017). These students can then be further fostered to develop their potential to the fullest, both through special programs and educational scholarships. According to Magdalena et.al (2020), the main task of schools is to educate their students and not arbitrarily make them smart and skilled, but must also be able to grow and develop students into better individuals and be responsible for their existence. Personality development facilities are not only structured learning in the curriculum, but also extracurricular activities which are learning activities that are held outside of class hours. With extracurricular activities such as OSN, it will have an impact on channeling students' talents in the field of science and being seen by teachers at school.

5. Network Development and Cooperation

OSN also allows students to meet their peers from different regions, build networks, and learn from each other. This creates a healthy and collaborative competitive environment, which is crucial for students' academic and social development. According to Fuadi (2020) Communication and cooperation with external parties as well as cooperation networks are carried out in the field of school management, school quality development, habbit, *culture*, and in the context of improving student achievement. Therefore, the success factor of the Olympics not only includes the competencies and abilities of students, but also the role of the school that contributes to the success of the Olympics by establishing cooperation with various parties (Rahmawaty & Krismayani, 2023).

Overall, the National Science Olympiad has a very positive impact on improving the quality of education in Indonesia. By increasing learning motivation, developing critical and analytical thinking skills, raising educational standards, identifying talents, and developing networks and collaborations, OSN plays an important role in preparing Indonesia's young generation to face future global challenges. Thus, the novelty of this research lies in a multidimensional approach, focusing on talent identification and development, integration of character development and academics, the use of empirical data and quantitative analysis, practical recommendations for policymakers and education, as well as strategies to increase participation and accessibility. These aspects of novelty make a significant contribution to the understanding and development of science education in Indonesia.

4. CONCLUSION

Thus, the national science olympiad held by the Faculty of Mathematics and Natural Sciences Unpatti aims to improve the quality of education. One of the indicators of improving the quality of education is the achievement of students at school. Students at the elementary, junior high/junior high school and high school levels in Maluku prove it by participating in the Olympic competition. This event also prepares students to be involved in science competitions both nationally and internationally. Improving the quality at a level of education is seen from the ability of students both regarding the substance of the lesson and developing the creativity, reasoning, attitude, and ethics of the students. The subject Olympiad is a competition or competition to improve the ability of students needs to be held for all regions so that the enthusiasm and commitment of education practitioners in the regions are maintained and allow them to always strive to develop the educational process. Research on the National Science Olympiad (OSN) provides various important implications for various stakeholders in the world of education. The following are some of the implications of this research: Education Policy Design; Curriculum Development; Teacher Training and Development; Increase Student Participation; and Extracurricular Program Development. Research on the National Science Olympiad has made significant contributions in the following aspects: Development of Academic Knowledge; Improvement of Educational Practices; Support for Policy Makers; Motivation for Students; and Strengthening the Research Network.

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