ANALYSIS OF IPAS LEARNING PROBLEMS IN THE MERDEKA CURRICULUM AT GRADE V

Iftakhul Kalimatul Jannah^{a*)}, Hayuni Retno Widarti^{a)}, Candra Utama^{a)}

^{a)} Universitas Negeri Malang, Malang, Indonesia

^{*)}Corresponding Author: iftakhul.kalimatul.2221038@students.um.ac.id

Article history: received 13 June 2024; revised 21 June 2024; accepted 20 July 2024

DOI: https://doi.org/10.33751/jhss.v8i2.9461

Abstract. The implementation of the Merdeka Curriculum in Indonesia marked a fundamental change in the approach to learn, gave teachers and students more freedom with an emphasis on practice, projects and differentiation of learning. This research revealed a number of challenges in implementing the Merdeka Curriculum, especially in the context of IPAS subjects. Although the Merdeka Curriculum provided freedom, teachers were faced with obstacles such as difficulties in preparing learning tools and determining the right methods. The implementation of formative assessment as an integral part of the curriculum also showed its own complexities. Although efforts had been made to overcome the barriers, this study concluded that further evaluation was needed to measure the positive impact of Merdeka Curriculum on IPAS learning and assessed the extent to which this curriculum was able to increasing student engagement and understanding at the primary school level. IPAS learning combined Natural Science and Social Science, it required teachers who were able to integrate complex concepts, prepared teaching materials and methods that were suitable for IPAS Class V.

Keywords: problematic; IPAS; merdeka curiculum

I. INTRODUCTION

The Merdeka learning curriculum is different from the previous curriculum used in Indonesia. Merdeka Curriculum concentrates on practical activities, such as projects that aim to raise the profile of Pancasila learners and create a fun learning environment. Anggraini (2023) says that the Merdeka Curriculum policy prioritizes creativity, problem solving, and learning based on the needs of the world of work. Learning in the Merdeka Curriculum is also carried out in a differentiated manner, which means that learning is carried out by considering the various needs, talents, and interests of students. This includes the formation of the Pancasila learner profile with the aim of producing graduates with good character (Ardianti & Amalia, 2022).

The Merdeka Curriculum, initiated by the Ministry of Education, Culture, Research and Technology (Mendikbud ristek), is a new milestone in the development of the education system in Indonesia. The Merdeka Curriculum aims to improve the quality of learning by giving more freedom to teachers and students. Mendikbud ristek tells that curriculum 2013 has monoton subject, there is minimum technology to combine with learning activities. This step was taken as an effort to respond to the dynamics of changing times, the needs of students, and the demands of society for relevant and innovative education. In the era of information technology, integrating technology is key to taking learning to the next level. Hanipah (2023) say that the learning paradigm has changed, and students should be encouraged to be innovative, critical, collaborative, creative, and technology savvy. They should also be equipped with skills and abilities relevant to the modern world. This analysis can uncover the extent to which teachers and students can utilize technology as an effective learning tool. Improving digital literacy and utilizing online resources become an integral part of cutting-edge learning. Given Indonesia's diverse cultural and geographical context, it is important to ensure that learning materials are appropriate and relevant to students' backgrounds, so that learning becomes more meaningful and contextualized.

One of the important components of the Merdeka Curriculum is the learning of Natural and Social Sciences (NSP). IPAS subjects are a combination of two fields of science, namely science and social studies. The merger is based on the fact that elementary school-age children see things more as a whole, so that in its application, students in elementary school age can describe and develop holistic thinking related to the natural and social environment. Another thing stated by Dyaning (2023) that the purpose of this change is to organize learning between one level and the next. In grade V, students begin to be introduced to more complex concepts, which form the basis of their understanding of the world. IPAS learning at this level not only provides factual knowledge, but also involves critical thinking skills, creativity, and the application of scientific concepts in everyday life. Merdeka curriculum allow teacher and students to do project learning, problem learning and other methods that support exploration learning Nadiah (2023). Improving IPAS learning in grade V requires a curriculum that is not only flexible but also responsive to



scientific developments and student needs. Analysis of these problems can be a foothold for assessing the extent to which the Merdeka Curriculum has the ability to adjust to scientific advances and provide space for teachers to create relevant learning programs.

While the Merdeka Curriculum is designed to provide more freedom, challenges arise when detailing its implementation, especially in IPAS subjects. Effective implementation requires teachers and students who are able to integrate learning freedom with the achievement of competencies and learning objectives. As the learning objectives in the Merdeka Curriculum conveyed by Ainia (2020) that with freedom of learning, teachers and students are expected to utilize their own freedom of thought, so that teachers can innovate in the way they teach students. In addition, freedom of learning makes it easier for students to be creative and innovative. Therefore, an in-depth understanding of the barriers and problems that may arise during the IPAS learning process in grade V is required. Education at the primary level, especially grade V, is the foundation for students' academic journey. A good understanding of the IPAS materials at this level forms the basis for further learning. Therefore, it is important to evaluate and improve the implementation of the Merdeka Curriculum on IPAS learning to ensure students are ready for the challenges at the next level of education.

The Merdeka curriculum has been implemented at SDIT Ahmad Yani Malang, namely with changing independent criteria. This was conveyed by the coordinator of the curriculum field of SDIT Ahmad Yani Malang. In general, the government has socialized the Merdeka Curriculum through various sources of information, especially the internet. In addition, the government has provided certain websites and applications, such as the Merdeka Mengajar Platform, which can be used by educational institutions to support the education process. However, the government's efforts to socialize the Merdeka Curriculum to educational institutions throughout Indonesia are still considered insufficient.

The implementation of this Merdeka Curriculum causes many problems for all schools, including SDIT Ahmad Yani Malang. Depending on the educational institution, the obstacles that occur vary and are influenced by the school's readiness to implement the Merdeka Curriculum at the elementary, middle and high school levels. Some educational institutions face challenges in implementing the Merdeka Curriculum. Wuwur (2023) said that many things cause difficulties in implementing the Merdeka Curriculum, one of which is the teachers' limitations in learning, understanding, and implementing the Merdeka Curriculum.

Analysing the problems of IPAS learning in the Merdeka Curriculum is a crucial step in improving the effectiveness of the curriculum. By understanding the obstacles faced by teachers and students, solutions and strategies can be formulated that support the achievement of national education goals, namely producing students who have a deep understanding, skills, and attitudes related to scientific advances and community needs. Analysing the problems of IPAS learning in the Merdeka Curriculum is not just an evaluation, but also a strategic step in directing education towards deeper meaning. Meaningful learning ensures that the knowledge students acquire is not only factual, but also related to the context of everyday life and is able to have a positive impact in various situations. In line with Ariyani (2019) that creating meaningfulness in learning is very important because meaningful learning means linking new information with related ideas in the cognitive structure. The ability of teachers and the availability of resources at school are determining factors in the successful implementation of the Merdeka Curriculum in IPAS learning in grade V. This problematic analysis can provide insight into the extent to which schools and teachers are ready to face the demands of the new curriculum.

Based on the background above, the purpose of this study is to analyse and understand the challenges teachers face when implementing the Merdeka Curriculum. This research will further study the problems faced by teachers and provide a better understanding of the implementation of the Merdeka Curriculum.

II. RESEARCH METHODS

This study uses a qualitative methodology with a phenomenological approach. The Merdeka Curriculum is currently a very popular phenomenon and a platform prioritized by the Ministry of Education. Qualitative research is a type of research in which the main focus is to find meaning, understanding, concepts, characteristics, symptoms, symbols, and descriptions of phenomena. In simple terms, the purpose of qualitative research is to find answers to certain questions or phenomena through the proactive application of various methods, prioritizing quality, and presented in a narrative manner. This research was conducted at SDIT Ahmad Yani Malang, and the subjects were grade V students, classroom teachers, curriculum coordinators, and principals. Observation, interviews, and documentation were used in collecting data. The data obtained is then analysed, the purpose of data analysis is to interpret the data collected through a series of observations, documentation, and in-depth interviews. In this study, observation, interview, and documentation methods were used. Three workflows were used to analyse the data: collection, reduction, presentation, and conclusion drawing.

III. RESULT AND DISCUSSION

A. Result

The results of research on the application of the Merdeka Curriculum in IPAS subjects at SDIT Ahmad Yani Malang show that although this Curriculum is still not fully implemented at the elementary school, it currently used is the type of Merdeka Curriculum that is independently changing. Classes that have implemented the Merdeka Curriculum are grades I, II, IV, and grade V. The following are some of the data collected by researchers:

B. Teacher



The Merdeka Curriculum gives principals, teachers and students the opportunity to make changes to the curriculum, learning and other issues that arise from the activities, creativity and potentials available. The results of observations and interviews show that almost all teachers at SD Malang have participated in various seminars, workshops and training on the new curriculum. At the beginning of implementing this curriculum, teachers felt difficult and confused in implementing it. However, in the process teachers continue to participate in various trainings and programs organized by the government regarding the Merdeka Curriculum.

Learning activities in the Merdeka Curriculum at SDIT Ahmad Yani Malang run well. The observation results show that there is a two-way interaction between educators and students during the learning process in the classroom. It can be seen from the teacher's readiness before class starts, compiling teaching materials, including CP, TP, ATP, annual programs, semester programs and Teaching Modules. In addition, teachers also make additional preparations before delivering subject matter in class. This is done to ensure teaching and learning activities remain concentrated and in accordance with the objectives to be achieved. Teachers' learning activities are based on the curriculum, and during the learning process, teachers are oriented towards curriculum objectives, and learning tasks require teachers to understand the curriculum (Fatmawati, 2021; Kiki Yestiani & Zahwa, 2020).

C. Textbook

A teacher cannot be separated from books during the learning process to be used as sources and materials in learning. Therefore, books are very important for the teaching and learning process so that learning outcomes are better. At SDIT Ahmad Yani Malang, there is no suitable package book available. To overcome this problem, some teachers use the IPAS package book published by the Ministry of Education and Culture and also try to buy relevant books as references or guides in the teaching process. Books play an important role in the educational process, so they function as media and learning resources to support the achievement of competencies (Mutiara et al., 2022). The following Table 1 presents the scope and material in IPAS learning.

 TABLE I

 SCOPE OF IPAS MATERIALS IN PHASE C

Scope	Material		
Living Things and Life	a.	Structure, function, and work	
Processes		process of the main organs of the	
		digestive system.	
	b.	The structure, function and	
		workings of the respiratory	
		organs.	
	с.	Circulatory system.	
	d.	Human organ system.	
	e.	Human organ systems and	
		prevention efforts.	
	f.	Adaptation of living things in an	
		ecosystem.	
	g.	The role and reciprocal	
	-	relationship between elements in	
		the ecosystem in the surrounding	
		environment.	
Energy and its Changes	a.	Preservation of ecosystems in	
		the environment.	
	b.	Types of sound and light energy	
		and their benefits.	

	с.	Renewable and non-renewable
		energy sources according to their characteristics.
	d.	Energy use at home and at school.
	e.	Causes and impacts of the
		energy crisis in their environment.
Earth and Universe	a. b.	Solar system member planets. Motion of the earth, moon and sum.
	c.	As a result of the earth's motion, the moon circles the sun.
Geography	a.	Latitude and longitude
		coordinates of the region on the map.
	b.	The influence of natural
	2.	conditions on the economic
		activities of surrounding
		communities.
Sociology	a.	Changes in natural conditions
		that occur in the vicinity.
	b.	Mitigation and adaptation to
		disasters caused by changes in natural conditions.
History	a.	Factors causing and influencing
nistory	u.	different cultures, religions and
		languages in Indonesia today.
	b.	The struggle of the Indonesian
		people to proclaim
		independence.
	с.	The attitude of national heroes
	r,	applied in daily life.
	d.	Values of struggle from independence heroes
	e.	The role of figures in the
	с.	proclamation of independence.
	f.	The meaning of the
		proclamation of independence
		for the Indonesian people.
Economy	a.	The influence of natural
		conditions on the economic activities of surrounding
		communities.
	b.	The wealth of natural resources
		in the environment that
		includes goods, services, and
		time that have economic value.
	с.	Economically valuable
		surrounding natural resources
	d.	Surrounding natural resources
		that promote local wisdom and
		economic value.

According to teachers, the implementation of science learning in primary schools is still separate from social studies learning. The book provided does contain science material at the beginning and social studies at the end, science is taught during the odd semester, and social studies is taught during the even semester. As a result, the implementation of the Merdeka Curriculum in science learning has not been fully integrated with social studies materials.

D. Learning Media

In IPAS lessons at SDIT Ahmad Yani, LCD projectors are used for teaching. By using the LCD projector, students can see, watch and listen to videos, pictures and writings about the lesson. The use of media makes it possible for students to participate more actively in the learning process and improve their understanding of the subject matter and have the ability to apply the knowledge in their lives. Learning media is important for successful learning because having it allows students to think concretely and reduces verbalism in learners. (Rejekil et al., 2020). The presence of learning media can help explain the material presented.

E. Learners

Learners at SDIT Ahmad Yani have different conditions, depending on their family environment, economic conditions and geographical location. There are learners who come from within the Malangarea, outside the area, or even from outside East Java. These different backgrounds affect their way of thinking. Therefore, teachers must use good teaching methods and learning media that suit the needs and conditions of the learners. Thus, learners with below- average abilities are not left behind from students with higher abilities. The implementation of the Merdeka Curriculum makes learners experience many changes, including changes in their attitudes and knowledge. In addition, they gain greater confidence in learning and can apply it in their daily lives.

F. Assessment of Learner Learning Outcomes

The diverse backgrounds of learners have affected their cognitive and psychomotor equality. Therefore, if the results of a learner's evaluation or assessment show that one of them is lacking or below the standard, the teacher must provide remediation either verbally or in writing. In the Merdeka Curriculum, assessment uses authentic values, so teachers must be thorough and creative.

An Merdeka Curriculum depends on the sincerity, skill, creativity and perseverance of the teacher. Teachers must have the ability to compile, select, and carry out evaluations to evaluate learning outcomes or learner development to find out how effective the implementation is during the learning process, as is the case with learners. Learners are not only expected to understand educational materials or skills taught at school, but are also expected to be able to apply that knowledge to everyday life according to their abilities. Learning outcomes are defined as what students achieve as learning achievements, which include knowledge, attitudes, and skills. (Mustika et al., 2021). Learning outcomes can help learners change behaviour in accordance with the basic abilities and materials learned.

Problematics of Implementing Merdeka Curriculum in IPAS **Subjects**

The interview results show that various factors contribute to the difficulties faced by teachers at SDIT Ahmad Yani when implementing Merdeka Curriculum in IPAS learning. These factors are diverse, also providing an overview of the main problems that need to be fixed in order to make the process of implementing this new curriculum smoother. The contributing factors include:

A. Teacher problems in preparing learning tools

From the interviews, it was found that teachers face challenges in making lesson plans. In the Merdeka Curriculum, the existing lesson plans have changes in words or sentences that are considered by the teachers to be new and need to adjust to the previous lesson plans. This is mainly related to evaluating the learning outcomes that students will achieve. This is an obstacle for teachers because they have been involved in various existing educational, polemics, such

as compiling syllabuses, annual programme, semester programme, lesson plans, portfolios, evaluations, and so on. This planning is then made in the form of Learning Objectives (TP), which are then included in the Flow of Learning Objectives (ATP). In addition, teachers who are not proficient in using technology will face difficulties when compiling teaching modules, difficulties in finding the right learning strategies and methods to make learning active and fun.

Lesson planning is a general description of the actions that will be taken by a teacher in the classroom to achieve predetermined goals. Therefore, as a learning designer, teachers are responsible for designing learning programs, which include organizing teaching materials, presentation, and evaluation, all in accordance with predetermined learning objectives. Learning planning is basically determining the most effective learning methods to achieve the desired learning outcomes.

В. Teachers' problems in determining methods and techniques in learning

The success of the curriculum depends not only on the lesson plans, but also on how the lessons are implemented in accordance with the lesson plans. Being a teacher who has the responsibility of teaching does not mean just teaching; teaching students requires careful preparation, teachers must have strong abilities, and teachers must also be able to keep up with developments in the world of education. Learning methods are one of the many other elements that teachers need to prepare for teaching. In addition, the interviews also found that teachers face a number of problems in the learning process. These problems include textbooks that only consist of student books, teachers' lack of ability and readiness to use learning media, teaching materials that are too broad, and lack of learning methods. It is very important to use methods and techniques in learning, because in addition to making the classroom atmosphere more enjoyable, the use of methods and techniques in the learning process will also have many other benefits. Learning methods can help students stay focused and understand what the teacher is saying, and can also help students' cognitive development constructively.

Different assessment С.

In the Merdeka Curriculum, teachers are expected to concentrate more on formative assessment than summative assessment, and use the results of formative assessment to improve learning. However, these assessments have not been used by teachers as feedback in learning improvement. In formative implementation, things that must be considered are that formative assessment must be carried out continuously throughout the learning process, using various assessment methods that are in accordance with the intended learning objectives, providing feedback to both learners and educators, and oriented towards change rather than just fulfilling the number of grades given.

One of the things that must be considered when using summative is that teachers conduct summative tests at a certain period, such as the end of the material stage, the end of the semester, or the end of the level. The results of this test will be used as material for processing student learning



outcome reports. Although the outcome measurement data has been obtained and used, feedback is still provided.

The results of interviews with the principal, curriculum coordinator, and teachers found that efforts to overcome problems and difficulties in implementing the Merdeka Curriculum. Steps taken in overcoming problems in the learning process: (a) using the independent teaching platform, to download and print learning materials according to meeting needs, this shows independence in utilizing available resources and technology. (b) Maximizing the use of LCDs and computers that have been provided in all classes, this shows that teachers work together to maximize the benefits of the facilities. (c) Teachers' involvement in cooperating among cluster-level schools, receiving training related to the implementation of the independent curriculum, and participating in workshops to gain additional knowledge. (d) teachers are motivated to participate in various programs organized by the government in an effort to improve the Merdeka Curriculum such as, penggerak teachers, and also penggerak schools.

IV. CONCLUSION

Based on the analysis of the learning problems of Natural and Social Sciences (IPAS), it can be concluded that the implementation of the Merdeka Curriculum has brought significant changes in the learning approach at SDIT Ahmad Yani. The Merdeka Curriculum emphasizes practice, projects, and differentiation of learning, giving more freedom to teachers and students. Nonetheless, challenges arise especially in the context of IPAS subjects. IPAS learning combines Natural and Social Sciences, requiring teachers who are able to integrate complex concepts. While this curriculum provides freedom, teachers are faced with obstacles such as difficulties in developing learning tools and determining appropriate learning methods. In addition, the change in assessment approach from summative to formative is also a challenge. Although efforts have been made to address these issues, further research is needed to evaluate the extent to which Merdeka Curriculum can positively impact IPAS learning and improve student engagement and understanding at the primary school level

REFERENCES

- [1] Ainia, D. K. (2020). Merdeka Belajar in Ki Hadjar Dewantara's View and its Relevance for Character Education Development. Indonesian Journal of Philosophy.
- [2] Anggraini, D., & Anisa, N. (2023). Implementation of the P5 Program in the Merdeka Belajar Curriculum in the Formation of Student Character at SMAN 2 Bengkalis. Al- Kifayah Journal: Tarbiyah and Keguruan Science, 2, 163-174.

http://ejournal.stit-

alkifayahriau.ac.id/index.php/alkifayahS. Zhang, C. Zhu, J. K. O. Sin, and P. K. T. Mok, "A novel ultrathin elevated channel low-temperature poly-Si TFT," *IEEE Electron Device Lett.*, vol. 20, pp. 569–571, Nov. 1999.

- [3] Ardianti, Y., & Amalia, N. (2022). Merdeka Curriculum: The Meaning of Merdeka in Learning Planning in Elementary Schools. Journal of Educational Research and Development, 6(3), 399-407. https://doi.org/10.23887/jppp.v6i3.55749.
- [4] Ariyani, I. D. (2019). The Role of Educators in Providing Meaningful Learning Using the Ethnomathematics Approach. 2(1), 77-84.
- [5] Dyaning, W. I., & Ekantini, A. (2023). *Implementation* of Merdeka Curriculum in MI / SD IPAS Learning. Pendas: Scientific Journal of Basic Education.
- [6] Fatmawati, I. (2021). *The Role of Teachers in Curriculum Development and Learning*.http://ejournal-revorma.sch.id.
- [7] Hanipah, S. (2023). Analysis of the Merdeka Belajar Curriculum in Facilitating 21st Century Learning in Senior High School Students. In Jurnal Bintang Pendidikan Indonesia (JUBPI) (Vol. 1, Number 2).
- [8] Kivunja, C. (2014). Teaching students to learn and to work well with 21st Century skills: Unpacking the career and life skills domain of the new learning paradigm. International Journal of Higher Education, 4(1), 1–11. https://doi.org/10.5430/ijhe.v4n1p1.
- [9] Kiki Yestiani, D., & Zahwa, N. (2020). The role of teachers in learning in elementary school students. In Journal of Basic Education (Vol. 4, Number 1). https://ejournal.stitpn.ac.id/index.php/fondatia.
- [10] Knain, E., & Ødegaard, M. (2019). The Implementation of Scientific Literacy as Basic Skills in Norway After the School Reform of 2006. In Collaboration in Designing a Pedagogical Approach in Information Literacy (pp. 15– 38). Springer Texts in Education. Springer, Cham. https://doi.org/10.1007/978-3-030-34258-6_3
- [11] Muller, J. (2015). The future of knowledge and skills in science and technology higher education. Higher Education, 70(3), 409–416. https://doi.org/https://doi.org/10.1007/s10734-014-9842x.
- [12] Nugrahanto, S., & Zuchdi, D. (2019). Indonesia PISA Result and Impact on The Reading Learning Programin Indonesia. 297(Icille 2018), 373–377. https://doi.org/10.2991/icille-18.2019.77.
- [13] Mustika, D., Ambiyar, A., & Aziz, I. (2021). The 2013 Curriculum Learning Outcomes Assessment Process in Elementary Schools. Basicedu Journal, 5(6), 6158-6167. https://doi.org/10.31004/basicedu.v5i6.1819.
- [14] Mutiara, A., Wagiran, W., & Pristiwati, R. (2022). Development of Electronic Enrichment Book of Fable Story with Pancasila Student Profile of Gotong Royong Element as Reading Literacy Media in Elementary School. Basicedu Journal, 6(2), 2419-2429. https://doi.org/10.31004/basicedu.v6i2.2455.
- [15] Nadiyah, Diyah & Pujiastuti, H. (2023). Problematika Implementasi Kurikulum Merdeka pada Pelajaran IPA di SMP. Jurnal Ilmia Pendidikan Dasar (Vol. 8, Number 3).

https://journal.unpas.ac.id/index.php/pendas/article/vie w/11215/4851.



- [16] Pratiwi, S. N., Cari, C., & Aminah, N. S. (2019). *Pembelajaran IPA Abad 21 dengan Literasi Sains Siswa. Jurnal Materi Dan Pembelajaran Fisika* (*JMPF*), 9(1), 34–42. https://doi.org/10.20961/jmpf.v9i1.31612.
- [17] Rejekil, Adnan, M.F., & Sonang Siregar, P. (2020). Utilization of Learning Media in Integrated Thematic Learning in Elementary Schools (Vol. 4, Number 2). https://jbasic.org/index.php/basicedu.
- [18] Segundo Marcos, R. I., López Fernández, V., Daza González, M. T., & Phillips-Silver, J. (2020). Promoting children's creative thinking through reading and writing in a cooperative learning classroom. Thinking Skills and Creativity, 36, 100663. https://doi.org/10.1016/j.tsc.2020.100663
- [19] Siliq, U., & Choiri, M. (2019). *Qualitative Research Methods in Education (first print)*. CV. Nata Karya.
- [20] Smith, J., & Hu, R. (2013). Synchronizing Eastern and Western Views of Teaching and Learning to Promote 21 st Century Skills and Global Perspectives. Education Research and Perspectives, 40, 86–108.
- [21] Sohrabi, Z., Ghanbari, N., & Abbasi, A. (2022). Iranian EFL teachers' perceptions of writing assessment literacy: a countrywide study. Language Testing in Asia, 12(1). https://doi.org/10.1186/s40468-022-00172-7.
- [22] Walipah, E., Rahman, R., Sopandi, W., & Sujana, A. (2020). School Literacy Program in the Industrial Revolution Era 4.0 in Building Speed Reading Skills. International Conference on Elementary Education, 2(1), 1763–1770.

http://proceedings.upi.edu/index.php/icee/article/view/804.

- [23] Winaya, I. M. A. (2021). Developing Tri Hita Karana based Student Worksheet to Improve Primary School Students' Critical Thinking During Learning. Jurnal Media Komunikasi FPIPS, 20(1), 33–38. https://doi.org/10.23887/mkfis.v20i1.33516.
- [24] Wise, A. F., & Hsiao, Y. T. (2019). Self-regulation in online discussions: Aligning data streams to investigate relationships between speaking, listening, and task

conditions. Computers in Human Behavior, 96, 273–284. https://doi.org/10.1016/j.chb.2018.01.034.

- [25] Wuwur, E. S. P. O. (2023). Problematics of Implementing Merdeka Curriculum in Elementary Schools. Soko Guru Journal, 3 (1). https://ejurnal.politeknikpratama.ac.id/index.php.
- [26] YalÇin İncİk, E. (2018). The Relationship between Teachers' Educational Beliefs and Teaching-Learning Conceptions: A Mixed Method Study. Journal of Education and Future, 14, 149–167. https://doi.org/https://doi.org/10.30786/jef.414487.

OPENCACCESS