Analysis of preparation in the independent curriculum implementation: Case study on IPAS learning

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Abstract

The independent curriculum is a newly created implementation, so schools and teachers as educators play an important role in the success of the program. The purpose of this study is to analyze the preparation for the implementation of the independent curriculum and find out the preparation in the application of science learning which is a combination of science and social studies. The research was carried out from August 2022-January 2023, where the research was carried out at UPTD SD Negeri 09 Panai Tengah, Labuhanbatu Regency. The samples in this study were vice principals, curriculum representatives and grade 4 teachers as research subjects. Data collection techniques are carried out by in-depth interviews. This study used the miles and huberman method. The results of this study show that, in preparing for the implementation of the independent curriculum, there is science learning, schools will prepare learning equipment plans and prepare teaching materials, but still require training and application gradually. Currently, preparations towards the implementation of the independent curriculum in these schools have reached 75% and will be optimized and implemented in the 2023/2024 school year.

Abstrak

A. Introduction

Elementary schools that have prepared for the implementation of the independent curriculum in Panai Tengah District, Habuhan Batu Regency are only UPTD SD Negeri 09 Panai Tengah. The curriculum is a guideline in education because the curriculum is the basis of the educational process, where education will be taken if there is no curriculum (Angga et al., 2022). In this case, the curriculum is the key to the success of educators, the better the planned program structure, the better the generation prepared (Ihsan, 2022). In the current era of globalization, the more developed the times, the greater the programs needed to improve the quality of education. To meet the demands of the times in the 5.0 era, the government has taken new steps to improve the quality of education with the creation of an independent curriculum. Allowing students to deepen their knowledge and skills to meet the demands of facing the 5.0 era is the policy of the Indonesian government in developing the concept of an independent curriculum (Mantra et al., 2022).

The independent curriculum is a newly created implementation, so schools and teachers as educators play an important role in the success of the program. Because it is new to the world of education, there are many things that need to be prepared properly by schools and teachers, so that the independent curriculum is carried out very well. This can be started by understanding the meaning and purpose of the independent curriculum, conducting assessment simulations, preparing learning plans and achievements, understanding the flow and objectives of learning and so on (Rahmadayanti & Hartoyo, 2022). So important is the curriculum in the field of education because it becomes a tool, reference, basis or view of life. The curriculum is always updated but of course the improvement of the curriculum is influenced by various factors, one of which is to keep pace with the rapid progress of science and technology that is so massive in the field of education. Like it or not, like it or not, the curriculum must continue to be refined. Both from basic education to higher education (Angga et al., 2022).

Unfortunately, preparing schools towards the implementation of an independent curriculum is not an easy thing. Many things need to be analyzed, such as school readiness, teacher readiness and also student readiness. In this case, teachers are required to be able to think critically, creatively innovative with various methods and media in learning techniques (Angga et al., 2022). Likewise with science lessons in elementary schools, teachers are not only required to understand science material, but also must master and understand how to deliver creative, innovative and effective learning so that it can be well understood by students. In fact, science education in elementary schools must be improved, increasing science learning in the independent curriculum in the form of integrating science lessons with social studies into IPAS, with the aim of developing students’ self-potential in the form of fostering curiosity, developing inquiry skills, creative, active, caring for themselves and the surrounding environment and developing knowledge in understanding the concept of science (Agustina et al., 2022).

Various analyses of the independent curriculum have actually been carried out. Several studies on this matter have been conducted at several levels of education, such as universities (Oksari et al., 2022) and high schools (Hutabarat et al., 2022; Widiya, 2022). On the other hand, some research in elementary schools has also been conducted. However, analysis of the independent curriculum in elementary schools seems to be carried out more often in independent curriculum implementation workshops (Zahir et al., 2022). In addition, independent curriculum analysis is carried out pedagogically and is focused on science content teacher books (Agustina et al., 2022). In line with this information, research examining preparation in the application of an independent curriculum in elementary schools, especially in science subjects, has never been conducted. The importance of this research is applicable to science education and the world of educational research.

In preparation for the implementation of the independent curriculum, UPTD SD Negeri 09 Panai Tengah will design seven learning objectives, compile the objectives of utilization and development of teaching tools, and will also collaborate with parents in the success of learning in the independent curriculum. In science learning, schools will prepare learning equipment plans and prepare teaching materials in order to provide information on how to respond to preparation in the application towards an independent curriculum, especially in good science subjects. In addition, the findings obtained can be the basis for research on the development of independent curriculum preparation carried out in science learning in elementary schools. Therefore, the purpose of this study is to analyze school preparation, and teachers in the application towards an independent curriculum, especially in science subjects in elementary schools.
B. Material and Method
This research is designed as descriptive qualitative research using a case study approach. Data collection was carried out using the interview method, which is the process of collecting information acquisition with a face-to-face question and answer process between interviewers and interviewees with or without using interview guidelines (Oktorima, 2017). The purpose of using qualitative descriptive methods in this study is to make a detailed systematic picture or description in preparation for the application of an independent curriculum especially in science subjects.

The research was carried out from August 2022 – January 2023, where the research was carried out at UPTD SD Negeri 09 Panai Tengah, Labuhanbatu Regency. This study involved representatives of the curriculum of SD 09 Panai Tengah as the study population, a sample technique using purposive sampling. The samples in this study were homeroom teachers in grade 4 as well as science subject teachers, Vice Principals and curriculum representatives. In this case, the tools needed in the data collection process are interview guidelines if needed, voice recorders and also documentation collection as reinforcement evidence if at any time needed.

The main instrument in this study is an in-depth interview, supported by field notes and documentation. All data is systematically collected and reviewed descriptively in order to obtain reliable and reliable findings. Data analysis techniques consist of data reduction, data presentation and inference. Data reduction means the process of sorting data in such a way that final conclusions can be drawn and verified. Data reduction is carried out by selecting the data obtained and categorized according to the focus of research. Data presentation is the appearance of a data set in the form of narrative writing that is organized so that conclusions can be obtained. And the conclusion is to make conclusions or summaries from the results of data analysis obtained in research, which are presented in short, concise, clear and meaningful sentences of course.

C. Results and Discussion
The independent curriculum is a mandate that must be carried out by every school driving the independent curriculum, which has been entrusted by Mr. Nadiem Makarim as Minister of Education, Culture, Research and Technology of the Republic of Indonesia. Likewise with SD Negeri 09 Panai Tengah which is their responsibility as one of the schools driving the independent curriculum. As a driving school, of course, there are many things that must be prepared, including school readiness, teachers and even students. Because the independent curriculum includes new implementation in the world of education, it is not surprising that not all schools are selected as driving schools. In this study, researchers chose UPTD SD Negeri 09 Panai Tengah as a destination school located in Labuhanbatu district, Panai Tengah district, which is included in the coastal area. No wonder it is still a little behind in terms of excellence, as well as delays in preparation for the implementation of an independent curriculum.

Independent curriculum According to Mr. BD (Curriculum Field) as an informant stated that “The independent curriculum humanizes humans, students not only learn written material, but also go to the field and practice more, the term is learning while playing”. In learning using an independent curriculum, teachers are required to be more active and creative in carrying out learning activities (Angga et al., 2022). The platform used in the independent curriculum is to create modules to achieve the Pancasila profile and also teachers can create E-Learning to facilitate students in understanding the material. The results of the research (Zahir et al., 2022) in the implementation of the independent curriculum in East Luwu Regency Elementary School conducted workshops for elementary school teachers to increase teacher knowledge related to the implementation of the independent curriculum.

Learning Design
Preparations towards the implementation of the independent curriculum at UPTD SD Negeri 09 Panai Tengah designed the flow of learning objectives which were followed by all teacher councils in the school.”This is done so that teachers are not overwhelmed when learning begins, to avoid entanglement of problems in the future when the independent curriculum has been implemented. Also to realize a new paradigm of learning that is differentiated and focuses on students,” said the vice principal as the resource person. The flow of learning objectives guides teachers and students to achieve learning outcomes at the end of a phase.

The flow of objectives for designing the flow of learning objectives according to the vice principal of SD Negeri 09 Panai Tengah includes:
1) Analyze learning outcomes (CP) to develop learning objectives.
2) Planning and implementation of diagnostic assessments, diagnostic assessments to identify the competencies, strengths, weaknesses of students.
3) Develop teaching modules.
4) Adjustment of learning to the stage of achievement and characteristics of students.
5) Learning progress reporting.
6) Learning evaluation and assessment.

The results of the study (Selegi & Hartono, 2019) stated that the first design prepared was to analyze Learning Outcomes (CP) to compile learning objectives and the flow of learning objectives. Learning outcomes are learning competencies that must be achieved by students at each stage of development for each subject, learning outcomes contain a set of competencies and material environments that are compiled comprehensively in the form of narratives by adjusting the stage of development of students.

The second stage in designing the flow of learning objectives is the planning and implementation of diagnostic assessment, diagnostic assessment to identify the competencies, strengths, weaknesses of students. The results of this stage according to Suryadi et al. (2022) are used by educators as a reference in planning learning according to the learning needs of students, under certain conditions information related to family background, learning readiness, learning motivation, student interests, and other information, can be used as consideration in planning learning.

The third stage is to develop teaching modules. The development of teaching modules aims to develop teaching tools that guide educators to carry out learning, "the teaching modules developed must be essential, namely interesting, meaningful and challenging, also relevant and contextual that is sustainable" said Mr. Wakepsek. The results of the study (Purani & Putra, 2022) stated that teachers at SDN 2 Cempaga for making modules or teaching materials received training from schools for the process of preparing teaching modules tailored to teaching needs.

The fourth stage is adjusting learning to the stage of achievement and characteristics of students, "learning is adjusted to the stages of achievement and characteristics of students because the scope of learning material is what will be taught by educators in class or what will be learned by students in class" continued Mr. Wakepsek, then educators adjust learning outcomes products, and condition the learning environment. As according to (Miladiah et al., 2023) The preparation carried out includes an analysis of the initial objectives regarding what content or material must be taught by the teacher concerned to students in the teaching and learning process.

The fifth stage is reporting learning progress. An effective form of learning reporting outcomes is "reporting that involves parents, students and educators as partners, reflects the values espoused by the school such as comprehensive, honest, fair and accountable, and clear and easy to understand by all parties". The learning outcome report is contained in the report card or other forms of assessment reports (Pertiwi et al., 2023).

The sixth stage of learning evaluation and assessment, learning and assessment that has been carried out is then evaluated, educators reflect on learning and assessment on each teaching module, after that educators identify what needs to be improved, by identifying these things then the teaching modules can be refined again (Budi et al., 2022).

Teaching Equipment Development
The independent curriculum currently implemented will change the learning method that was originally carried out in the classroom to learning outside the classroom. Thus, quality and technology-based teaching tools are needed so that students can easily understand them.

The homeroom teacher said, "The independent curriculum was designed as part of the Ministry of Education and Culture's efforts to overcome the learning crisis that we have been facing for a long time, and has become worse due to the pandemic". The recovery of the education system from the learning crisis cannot be realized through curriculum changes alone, various efforts are also needed to strengthen the capacity of teachers and principals. Thus the use and development of teaching equipment in schools is carried out, in order to achieve the project of strengthening the profile of Pancasila students in the school. "The teaching materials in the independent curriculum have actually used the principle of digitalization, but because SD 09 Panai Tengah still experiences technological limitations for students, the teaching materials used are still manual". Learning tools that become learning guidelines are learning modules, teaching modules are useful to help develop and succeed learning tools that will be applied by educators.

The purpose of developing and utilizing teaching tools is to enrich the learning tools themselves, which can guide teachers to carry out learning in closed and open classrooms. The representative for curriculum said, "In this case, the independent curriculum provides flexibility for teachers to enrich learning tools in two ways, namely teachers can choose or modify teaching modules that have been prepared by the government, and are
adjusted to the character of students and arrange modules individually according to the material and character of students to make it easier to compile teaching devices”. Before compiling learning tools, current teachers know the strategy in developing learning tools and must meet two minimum requirements, namely meeting existing criteria and learning must be in accordance with learning and assessment principles. The vice principal stated that, “The criteria for teaching equipment for the independent curriculum are as follows; The first is essential, that is, each subject is conceptualized through experiential learning and across disciplines. The second is interesting, meaningful and challenging, that is, teachers can foster interest in students and include students actively in learning, related to their cognitive and experience so that it is not too complex and not too easy for their age. The third is relevant and contextual, which is related to cognitive elements and experiences that have been previously owned and according to the conditions of the time and place students are. And the last is continuous, namely learning activities must have a relationship in accordance with student learning phases such as phase 1, phase 2, and phase 3”.

The results of the study (Barlian et al., 2022) stated that the teaching tools used in the independent curriculum are in the form of project-based modules or e-learning in accordance with the Pancasila Profile by providing learning videos and then dividing students into 2 projects, namely short-term projects with a period of 1 month and long-term projects carried out 2 to 3 months that meet 6 Pancasila profiles.

**Integration of Science Learning**

Science is a subject in the structure of the independent curriculum. The homeroom teacher said that in this independent curriculum there were also changes in subjects, such as science and social studies combined into IPAS, and PKN subjects changed to Pancasila Education. This aims to make it easier for students to understand and process the lessons delivered by the teacher (Agustina et al., 2022). Preparation for extracurriculars in the independent curriculum is likely to hold P5 (Project for Strengthening the Profile of Pancasila Students) and also make works from the use of used materials and create new things from organic materials. Supporting media in science lessons can be in the form of making organs in the human body using mineral bottles and also additional materials such as balloons. This can increase students’ knowledge, mindset, and creativity in utilizing the resources around them. This can create a new generation that is creative, innovative and also wise in acting (Suryadi et al., 2022).

Along with the times, science is also constantly developing. The carrying capacity of nature in meeting human needs from time to time is also decreasing. The exponential increase in human population also triggers many problems faced. Character is the most important product in a curriculum, which can be applied in subjects, one of which is the subjects of Natural and Social Sciences (IPAS), the natural and social environment is a place for learning for students, where nature is a place of direct and social learning as a place of interaction and socializing among humans (Ramadhan & Santosa, 2023). To provide this understanding to students, learning natural sciences and social sciences needs to be combined into a unity which we then known as IPAS. In science learning, there are 2 main elements, namely understanding science (science and social), and process skills, science that studies nature, of course, is also closely related to community or environmental conditions, making it possible to be taught integratively (Zahir et al., 2022).

IPAS has a role in realizing the Pancasila Student Profile as an ideal picture of the profile of Indonesian students. The results of the interview with the homeroom teacher stated that “IPAS helps students grow their curiosity about the phenomena that occur around them. This curiosity can trigger students to understand how the universe works and interacts with human life on earth”. So, studying natural phenomena and human interaction with nature and between humans is very important in learning in the implementation of this independent curriculum. The implementation of science learning is no different from other subjects. Learning plans need to be made in advance so that learning is in accordance with the curriculum, syllabus and learning objectives. Determination of appropriate learning models needs to be done so that learning objectives can be achieved. Relevant teaching materials, learning media and assessments are adjusted to the characteristics of IPAS material. The teaching materials used are prepared based on the mapping of the science and social studies curriculum, science and social studies learning outcomes which can then be made IPAS themes. The theme of science may differ from one teacher to another, depending on their creativity. However, the learning outcomes are certainly the same according to the demands of the curriculum. In the independent curriculum, education units and educators can flexibly determine the type, technical, instrument, and time of examination based on the characteristics of learning objectives.
Educators also have the flexibility to determine strategies for processing assessment results as needed, as well as for science learning in the independent curriculum.

**Collaboration with Parents**

The shift to an independent curriculum in Indonesia, which is so fast and not implemented thoroughly in every education unit, is not only confusing for teachers and students but parents who guide their children at home. According to (Miladiah et al., 2023), understanding the concept of an independent curriculum by parents is also very important because with the support of parents, the process of implementing independent learning can run well. Another obstacle is that some students do not have the media needed in implementing this independent learning. There are many complaints from parents of students, especially mothers who have difficulty in guiding their children.

Such as increasing subjects so that they have to study again in the midst of busy taking care of the house, etc. In overcoming this, cooperation between principals, teachers and parents is needed. Cooperation or collaboration in the world of education is the relationship between schools and families or teachers and parents in the learning process carried out by their children, where both parties know, understand, respect and support each other, in order to achieve success in achieving educational goals in the learning process for children (Rantauwati, 2020). Collaboration can inform parents so that they are aware that they have responsibilities and roles in their children’s learning process at school. Schools can provide parents with an understanding of the important role of parents in guiding children at school. With these curriculum changes, students are required to keep up with the increasingly advanced times.

Not only that, the role of parents is also very much expected so that every learning program is achieved. As in the research (Hasim, 2020), this is as explained by the Minister of Education and Culture, based on this, more than that, new empathy arises, especially teachers with parents and parents with teachers," said Nadiem Anwar Makarim starting the public lecture. The new empathy that Nadiem intended is intertwined with the understanding that teachers realize the importance of the role of parents in contributing to the success of children’s education. In addition, parents become aware of how the teacher’s job in educating their children is not easy.

The results of an interview with the Curriculum Representative stated that "Student and parent collaboration activities are carried out at the beginning of each new school year, this collaboration is able to increase student motivation, happiness and learning outcomes. This activity is also able to increase the support and role of parents in accompanying children to learn.” Collaboration with parents is carried out to explain to parents about the learning design in the change of the independent curriculum, which results in freedom to students when learning. This aims to increase parents’ concern about education, that parents can enrich teaching content with resources at home. This will increase knowledge in students that the learning obtained is not only in the classroom but also around the neighbourhood. This is where strengthening the role and cooperation of educators and parents is very important in encouraging and directing students to learn according to their interests and potential to achieve optimal and meaningful learning outcomes (Yulianti et al., 2022). This is so that the information and teaching obtained by students are not different and the community itself initiates the idea of continuing to realize good character and personality in broad community life. Parents need to take part in helping schools to develop all aspects of development that students already have by collaborating with teachers (Rantauwati, 2020). With this cooperation, parents will be able to gain knowledge and experience from teachers in educating their children. In other words, collaboration between teachers, parents, and the community around the school is needed in the success of the independent curriculum.

Based on previous research, the implementation of the independent curriculum in several schools is believed to be able to implement the independent curriculum well. Several analyses on the independent curriculum have also been carried out, such as assessment (Nasution, 2021), implementation of authentic assessment (Rosidah et al., 2021), PAl learning (Rifa'i et al., 2022), implementation of clinical supervision (Anrizdo et al., 2022), implementation of the project based learning (PjBL) model (Abdurahman et al., 2022). In preparation for the implementation of an independent curriculum, in addition to preparing teaching materials, teachers and schools must also focus on preparing school facilities and infrastructure as well as science learning practicum teaching materials so as to create comfort and make it easier for students to learn.

**Implementation of the Independent Curriculum**

The implementation of the independent curriculum has 6 predetermined indicators, namely (1)
understanding the characteristics and structure of the curriculum; (2) readiness of lesson plans; (3) implementation of learning; (4) module readiness; (5) readiness of facilities and infrastructure; and (6) readiness for learning assessment (Purani & Putra, 2022). Based on the results obtained, the implementation of the independent curriculum at UPTD SD Negeri 09 Panai Tengah is likely to be fully implemented in the upcoming 2023/2024 school year, until now preparations towards the implementation of the independent curriculum are still at the 75% stage and will be maximized at the end of the school year. Due to the new implementation, most teachers still have difficulty in adjusting the change of the 2013 curriculum to an independent curriculum.

In preparation for the independent curriculum, several stages have also been carried out, the first is training for teachers which is carried out by attending workshops and seminars both directly and webinars, training in the form of understanding the concepts and structures of the independent curriculum, recognizing learning outcomes, learning objectives, and teaching modules, creating independent learning classes through differentiated learning, preparing and using assessment results in the independent curriculum. The second coordination meeting, the coordination meeting held discussions related to the project of strengthening the profile of Pancasila students, the discussion in this meeting included the theme, time and distribution of tasks of the project assistant teachers / teachers. The third administrative meeting, an administrative meeting conducted in the form of preparing the Syllabus and RPP LKP, is also at the same time about planning, implementing and reporting learning activities by each teaching teacher. Then, the last book as a support for teaching materials has also been ordered by the school, books ordered in the form of pocket books for students, learning package books for teachers and students.

The results of the study (Arisanti, 2022) stated that the readiness of schools and teachers in implementing the independent curriculum is still minimal, there are still teachers who do not understand the structure of the independent curriculum and the platform used in its implementation. Therefore, attention is still needed from the Government to provide socialization and training to teachers so that teachers are able to prepare learning tools.

The implementation of the independent curriculum will of course experience different impacts, such as positive impacts and negative impacts. These impacts will certainly be felt by certain parties, such as educators and students. According to (Miladiah et al., 2023) The implementation of this independent curriculum also has an impact felt by students, educators, and also other education staff, the impact felt is divided into two, positive impacts and negative impacts. The positive impact felt by students can be in the form of changes in the teaching system as well as students, but this can result in opportunities to explore the mindset, character and responsibility of students. Meanwhile, the negative impacts felt by educators such as difficulties in conducting teaching are also assessments if there is a lack of teaching materials and modules obtained during the preparation period for the implementation of the independent curriculum.

D. Conclusion
In this study, the preparation of schools and teachers towards the implementation of an independent curriculum was studied. The results showed that school preparation has now reached 75% and will be implemented in the 2023/2024 school year. In preparing the curriculum, the school conducts seven learning objectives flow designs, compiles objectives for the use and development of teaching tools, and will also collaborate with parents in the success of learning in the independent curriculum.

E. References
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