Innovation of Education Models in Islands and Border Areas Based on Digital and Spatial Approaches as a Regional Development Policy Concept for the Province of North Sulawesi in Opening Indonesia's Gateway to the Pacific and East Asia Regions

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Abstract

This research discusses the concept of North Sulawesi Province's regional development policy, aimed at opening Indonesia's gateway to the Pacific and East Asia regions through innovative education models in islands and border areas based on digital and spatial approaches. This education model aims to improve the quality of education in remote areas through the use of digital technology and spatial approaches. This concept is carried out to build a better quality of human resources, so that they are able to face global challenges in the future. This digital and spatial approach to education includes the use of information and communication technology and digital maps to improve teaching effectiveness. In addition, this education model is also expected to improve students' skills and knowledge in technology and science. Through the innovation of education models in the islands and border areas based on digital and spatial approaches, North Sulawesi Province hopes to strengthen Indonesia's position in the Pacific and East Asia regions and open up wider opportunities for cooperation in the fields of education and technology.

Keywords: *Development Policy Concept; Digital Approach; Educational Model Innovation; Spatial Approach*

Introduction

Based on the Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System, education is a conscious and planned effort to create a learning atmosphere and learning process, enabling students to actively develop their potential, including religious and spiritual strength, self-control, personality, intelligence, noble character, and the skills required by themselves, society, nation, and state. However, it is important to acknowledge that the implementation of education in our country still faces significant challenges. These challenges include unequal access to education, unequal quality of education, and insufficient budget allocations to improve the quality of education (Sutrisno, 2021).

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Education in Indonesia's frontier, outermost, and disadvantaged areas (3T) presents unique and complex problems. In the implementation of education in these regions, various challenges persist. The Ministry of Education and Culture (Kemendikbud, 2012) identifies some of these challenges, particularly in frontier, outermost, and disadvantaged areas (3T), such as educator-related issues including shortages, uneven distribution, inadequate qualifications, low competencies, and mismatches between educational qualifications and the subjects they teach. Another challenge in education implementation is the relatively high dropout rate coupled with low school enrollment rates.

In general, the challenges of implementing education in the outermost regions encompass issues related to educators, including a shortage of teaching staff, disproportionate distribution, qualifications falling below quality standards, incompetence, and a mismatch between educational qualifications and the relevant fields. Other challenges include high dropout rates, low school enrollment rates, and inadequate facilities and infrastructure that hinder easy access to education. However, regardless of the difficulties involved in providing education for the outermost communities in Indonesia, it remains the responsibility of all parties, especially the central and regional governments, to address these issues. This is because it is both the government's obligation and the right of every citizen, as stated in Article 31 of the Constitution of the Republic of Indonesia, which strongly emphasizes the importance of education for all citizens. Specifically, paragraphs 3 and 4 emphasize that the government must strive for the implementation of national education by prioritizing a budget of at least 20% of the state budget and the regional budget to ensure the nation's development through education.

In Law No. 17 of 2007 concerning National Long-Term Development Plan (RPJPN) 2005-2025, the development direction for the third RPJM from 2005 to 2019 is defined as "strengthening overall development in various regions by emphasizing the achievement of economic competitiveness based on excellence in the quality of natural and human resources, as well as improving science and technology capabilities" (Law No. 17 of 2007 concerning RPJPN 2005-2025). Therefore, in the process of promoting equitable access to education, it can be pursued through several approaches. First, by enhancing the capacity of educational institutions. Second, by increasing education equity through the effectiveness of affirmative policies. According to Hakim (2016), the state, including local governments, has the obligation to ensure compulsory education. This obligation entails providing necessary facilities and infrastructure such as school buildings, making compulsory education affordable, ensuring acceptance of students, and ensuring the suitability of educational institutions with environmental needs (Tilaar, 2006).

Equalization and expansion of education are public policies that should be implemented by both central and regional governments. The central/regional governments guarantee the implementation of compulsory education (Arifin, 2005). The implementation of public policy requires careful planning and can be approached through at least two methods: the public administration approach and the managerial approach (Lubis, 1996). These approaches should consider three aspects: philosophical, legal, and political (Lubis, 1996). Regarding education expansion and equity, its implementation represents a comprehensive public policy implemented by both central and local governments to realize the ideals of the 1945 Constitution, particularly concerning the intellectual development of the nation's children. Ensuring education for children must therefore be a priority for both the central and regional governments (Gultom, 2014).

Several studies have been conducted in various regions, including the border areas of Kayan Hulu Malinau (A'ing, 2015) and Bintan Pesisir Riau Islands (Auldina, 2018), remote areas such as Loru Sigi Biromaru (Imran, 2014) and Buntu Mondong Enrekang (Suardi et al., 2016), as well as islands such as Pulau Nasi Aceh Besar (Adlim et al., 2016) and the Talaud islands of North Sulawesi (Londa, 2016). These studies consistently reveal that the conditions and development of education in these areas are still highly limited and often subject to discrimination and marginalization. The problem of low-quality education in Indonesia is a result of insufficient attention given to the importance of students' spatial intelligence. Spatial intelligence encompasses various components, including spatial processes and

patterns, dynamic intelligence related to space, value, and networks. In simpler terms, spatial intelligence refers to the ability of individuals to have a keen sensitivity towards visual images, space, shape, spatial memory, and the ability to sketch or model. Developing spatial intelligence is crucial for effectively managing the nation's resources, promoting national unity, ensuring integrity, and mitigating the negative impact of disasters.

Expanding access to education is one of the government's four priority objectives, as stated in the 2018 RNPK discussion led by the Ministry of Education and Culture. The government has taken steps to provide access to education in 122 districts and cities located in frontier, outermost, and disadvantaged areas by constructing learning facilities and deploying teachers to these regions. The Ministry of Education and Culture allocates a yearly budget of 3.1 trillion for the development of education in peripheral or 3T areas. These funds are used to finance various programs, including the construction of new school units and classrooms, rehabilitation and revitalization of damaged schools, school child nutrition programs, and school sanitation programs. The implementation of the new curriculum, K-13, has resulted in the elimination of the ICT subject. This poses a challenge for ICT teachers in non-vocational schools who were previously responsible for teaching ICT. With the removal of ICT lessons from the curriculum, these teachers will naturally lose their professional allowances.

On the other hand, the government, particularly the Ministry of Education and Culture, believes that utilizing ICT is crucial in accelerating the improvement of education quality. It is almost illogical to discuss improving the quality of the learning process, teacher competence, learning resources, and various learning innovations without the integration of ICT. How can we cater to approximately 52 million students, 3.7 million teachers, and nearly 300 thousand educational institutions without leveraging ICT? Therefore, ICT must be seen as one, if not the only, solution to expedite the enhancement of education quality in the country.

A preliminary survey conducted by the Pustekkom Team highlights several general problems in education within 3T areas, including the lack of power sources, limited internet access, inadequate ICT infrastructure, a scarcity of human resources with ICT skills, and inconsistent mobile phone signal coverage (Pustekkom, 2012).

Considering the aforementioned background and problems, the research problem addressed in this study is to analyze the implementation of digital and spatial approaches as innovative models of education in islands and border areas. These approaches are based on the spatial approach as a regional development policy concept for North Sulawesi Province, aiming to establish Indonesia's gateway to the Pacific and East Asia regions.

Research Methods

This research utilizes qualitative research methods to describe, interpret, and analyze the innovative education models in islands and border areas based on digital and spatial approaches. The aim is to examine them as a regional development policy concept for North Sulawesi province, contributing to the opening of Indonesia's gateway to the Pacific and East Asia regions. A descriptive study was employed as the research design for this study.

Secondary data was used as the primary source of information for this research. The data was collected through a literature study, which involved reviewing relevant records, literature, documentation, and other sources pertaining to the research topic. The analysis technique employed in this study is interactive analysis, which is a qualitative data analysis method encompassing three main activities: data reduction, data presentation, and conclusion drawing or verification. These activities occur concurrently throughout the analysis process.

Results and Discussion

Implementation of the Digital Approach as an Educational Model Innovation

The development of information and communication technology in the current digital era is progressing rapidly, especially since the Covid-19 pandemic. Now, everyone is required to have proficient skills in using technology to interact and communicate with people worldwide. This advancement has had a significant impact on various fields, including education. One notable change is the shift from conventional learning models to online learning models that utilize existing technology.

Online learning offers flexibility, as educators and students no longer need to physically meet or be in the same location to carry out learning activities. One example of online learning is e-learning, which enables educators to share materials in real-time. However, relying excessively on digital technology in the learning model can have negative consequences, such as reducing the personal connection between educators and learners. Therefore, it is crucial to adopt a more humanistic approach to the learning model by considering the three essential aspects: cognitive, affective, and psychomotor.

Implementing a more humanistic learning model does not imply abandoning the use of digital technology; instead, it involves maximizing its utilization as a means of supporting learning activities. Here are some innovative learning models in the digital era that can be applied:

1. Blended Learning
Blended learning is a mixed learning model that combines face-to-face instruction with online learning. Through this model, students are given the opportunity to learn independently from home (theoretical learning) and directly at school (practical learning). Moreover, face-to-face meetings allow learners to ask educators directly about any unclear or disconnected information from online learning. Sometimes, when asking questions online, the message or information conveyed may be less clear.

The implementation of the blended learning model can be customized according to the policies of each educational institution. For example, the 60:40 model can be used, where 60% of the learning is done face-to-face and 40% is completed online.

2. Cloud Learning
Cloud learning is a learning model that is implemented face-to-face, but the materials are digitally documented in cloud storage. In this context, educators are required to prepare lesson materials that are attractively packaged in various forms, such as videos, photos, animations, infographics, posters, and so on. The material that has been prepared is then stored in cloud storage such as google drive, after which it is distributed to students to study at home before attending the lesson. Another benefit of documented material is as a learning resource if students forget about what has been taught at school. So, the implementation of the cloud learning model is entirely face-to-face, but still uses digital technology as a means of supporting learning activities.

3. Hybrid Learning
Hybird learning is a learning model that also combines face-to-face learning with online learning. The difference is, if the blended learning model is alternating, for example, this week face-to-face, then next week online. Meanwhile, hybrid learning combines both, meaning that there are students who learn directly in class, but there are also those who follow online learning. Thus, it is not the learning model that changes, but the learners.
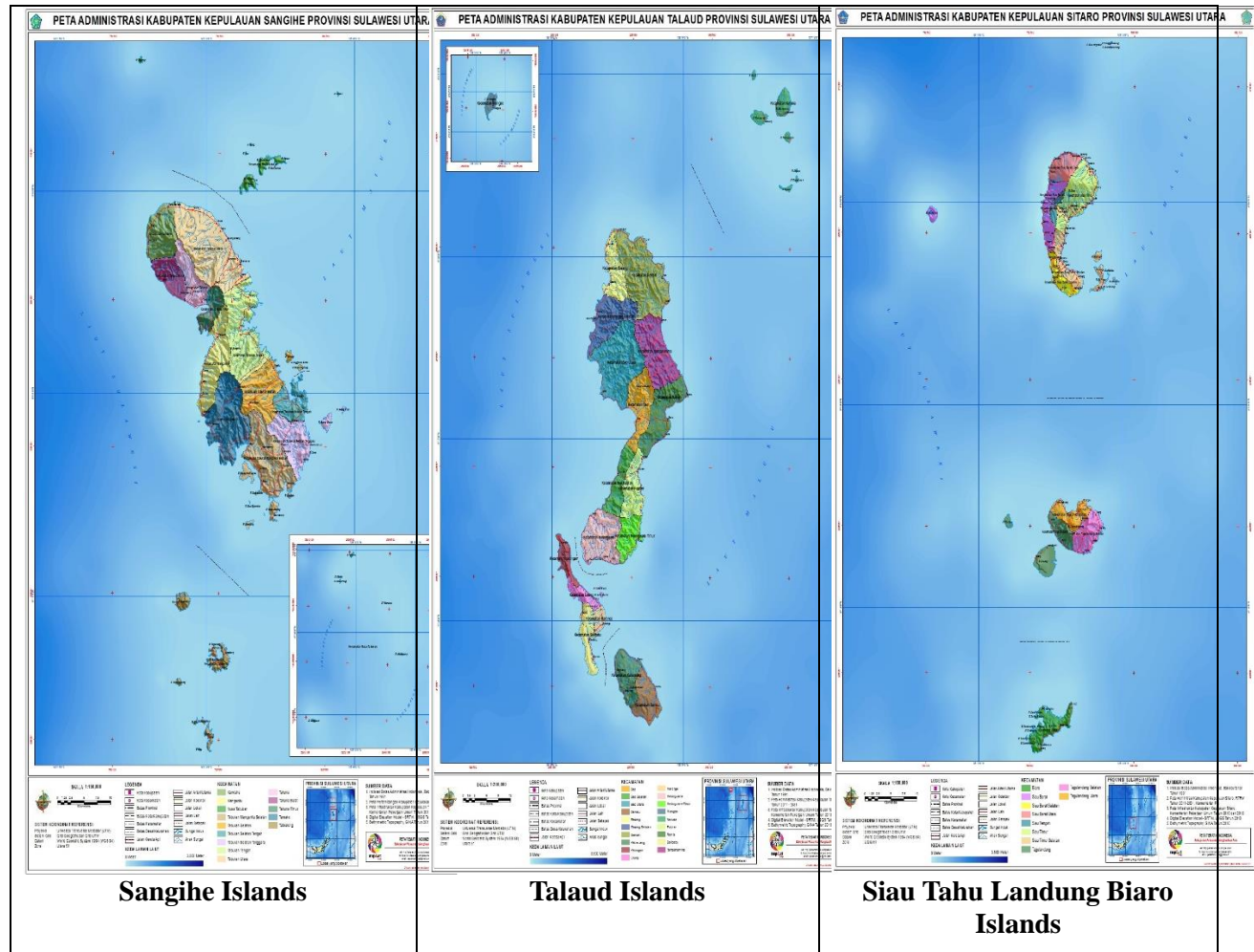
| Sangihe Islands | Talaud Islands | Siau Tahu Landung Biaro Islands |

Figure 1: Map of the three districts in the Islands of North Sulawesi Province.

Source: https://petatematikindo.wordpress.com/

Improving teacher quality is by improving teacher competence, both on a national, regional and global scale (Ballesteros Regaña et al., 2019; Chiang & Trezise, 2021). Teacher competencies in Indonesia are regulated in the National Education Regulation (Permendiknas) No. 16/2007 concerning Academic Qualification Standards and Teacher Competencies, stating that there are 4 (four) competency standards for elementary/middle school classroom teachers, namely: (1) pedagogical competence; (2) personality competence; (3) social competence; (4) professional competence. With these competencies, teachers are expected to improve their performance and become professional teachers (Sanoto & Soesanto, 2022).

The problems that occur in the 3T areas continue to occur because these problems cannot be resolved because based on observations, there are no other innovations that can be a solution to the limited distance and the supervision process that has not met the standards and objectives of academic supervision. The 3T areas in North Sulawesi Province have a large area coverage with a limited number of school supervisors, so the supervision process is hampered by long distances and requires a long time and a lot of money. As a result, the supervision process, which is usually carried out at least twice a year, can only be carried out once and there are also areas that do not even carry out the supervision process because of the long distance constraints. Research by Sanoto et al. (2022) states that the ongoing supervision process has several shortcomings, one of which is the absence of evaluation or feedback from school supervisors to teachers.

Based on the results of preliminary research on academic support in 3T areas, an academic supervision system was developed that provides an alternative solution to the problem of limited distance and the limited number of school supervisors. The design is an online-based academic supervision system, which can be accessed by the education office, supervisors, principals and teachers. The design is an online-based academic supervision system. An online-based academic supervision system can facilitate the process of remote or long-distance supervision (Fendi et al., 2021; O'Neil et al., 2017). By using supervision technology, the process becomes more effective and efficient because it is not limited by distance (Augustsson & Jaldemark, 2014; Minton & Hightower, 2020). The condition of the 3T area with a large area coverage and VSAT internet facilities and other telecommunication networks that facilitate internet access in each region is the basis for developing an online-based academic supervision system.

Previous research (Luthfiyani et al., 2021; Rahabav, 2016) states that evaluation in the supervision process is very important, so that the teaching process carried out by teachers undergoes a process of improvement and improvement. The developed academic supervision system is added to the aspect of analyzing teacher needs which functions to facilitate teachers to express opinions related to needs in the learning process including teacher competency training, technology mastery training and facility needs that support the learning process. Teachers' opinions are related to training and aspects of learning facilities that can improve teacher professionalism (Aseeri, 2015; Creasy, 2015; Sayi, 2018). In addition, well-executed supervision is effective in improving the quality of education (Carlisle et al., 2017; Göker, 2017; Khun-Inkeeree et al., 2019). With the development of an online-based academic supervision system, it is expected to be one of the solutions to the problem of academic supervision in the 3T areas that aims to improve teacher competence and the quality of learning in the 3T areas.

Efforts to equalize internet access that are being carried out by the government through the 2014-2019 Broadband program need to be encouraged because internet infrastructure development not only has a correlation with the right to access information but is also closely related to poverty alleviation, education equity, and empowerment of disadvantaged communities (Kominfo, 2018).
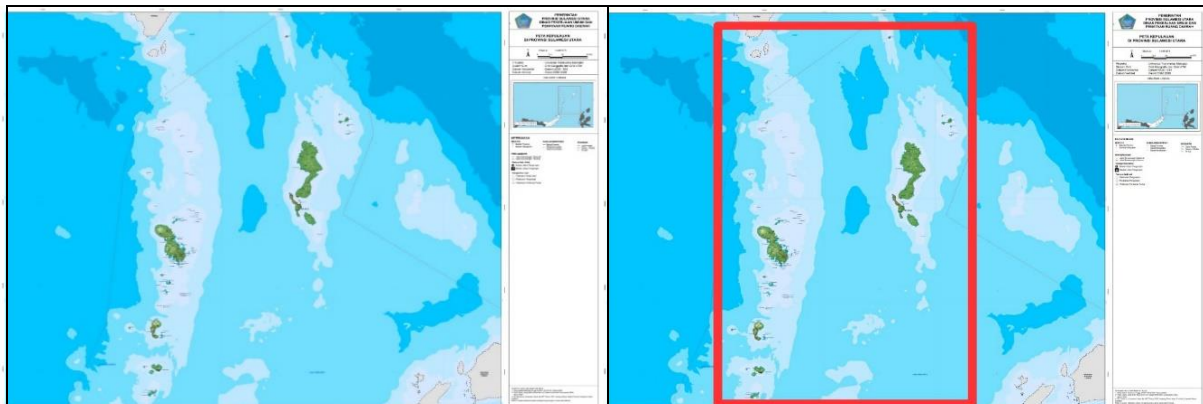

Figure 2. Spatial Map of the Islands of North Sulawesi Province

There are various innovative instructional strategies introduced in education. For example, the use of audio-tutorials, technology-assisted instruction, blended learning, instructional video and television, outdoor learning, games and simulations, online video meetings, and other strategies (Ellis, 2015; Sharif, 2019). Although these strategies have been very popular and widely used in educational teaching, questions regarding their effectiveness and efficiency still arise. Many instructional techniques utilize developments in technology and science. Some of them are signed by focusing more responsibility to students in the learning process. Others are simply to pass the time in instructional practice. In many attempts to replace traditional teaching methods, the use of ICT or other instructional activities dominates (Habibi et al., 2020; Muhaimin et al., 2019).

Teacher innovation in instructional technology used electronic and mechanical devices help teachers in the teaching and learning process, such as computer-aided and ICT-managed pedagogy, internet-based learning, use of social media, technology simulation, online lean, pedagogical video broadcasting, audio or video resources, visual recordings, and others (Gagne, 2013). With the use of technology, teachers have significant potential to extend innovation for stronger pedagogy. It also exceeds teachers' flexibility in the instructional process regarding time and space through e-learning and m-learning (Al-Emran et al., 2016). Moreover, it also reduces many administrative tasks of teachers to maximize the essence of teaching. Technology has also increased self-directed learning among students and accelerated the pace of learning, as well as increased opportunities for teachers to communicate, supervise, and discuss through social media (Habibi et al., 2018).

Incomprehension relates to a person's differentiating competencies that distinguish them from high or low performing individuals. In internet use, these competencies can be defined to distinguish individuals who are proficient and not proficient in using the internet (Fogg, 1997). These results can be attributed and prove that the internet literacy of people in the border areas of North Sulawesi Province is still low. The success of technology implementation is also influenced by the level of community literacy. The presence of the internet has influenced many daily activities such as education (e-learning), business (e-commerce), government (e-government), health (e-health), and others.

The condition of broadband internet development in the border areas of North Sulawesi Province is still low. From the supply aspect, infrastructure conditions are still very poor. However, the local government and central government are working to meet the internet needs of the community through the deployment of fiber optic internet networks and the availability of access (wi-fi cities). The availability of high-quality broadband internet services with low tariffs can be a driving factor in increasing broadband internet penetration. From the demand aspect, although the proportion of households that already have internet access (55.73%) and use the internet (56.67%) is more than 50%, this value needs to be increased in order to achieve the national broadband penetration target of 30% as outlined in the National Broadband Development Plan. The results show that the reason why people do not have internet access is because of the high cost of the service (33.33%). Even if there is an access place/facility, people think broadband internet is not important/not necessary so they do not visit/use the place/facility. Circular Letter No. 1153/2016 on a new interconnection tariff reference that passes symmetrically, encouragement for the implementation of infrastructure sharing, as well as the BTS Perbatasan and Palapa Ring programs are some of the regulations that are being sought to address this. Further analysis also found that people are more likely to use flexible access and devices such as mobile internet and smartphones to access broadband internet.

Implementation of the Spatial Approach as an Educational Model Innovation

In implementing the spatial approach, educators can base their analysis on one or a combination of several analytical themes. This is because the nine themes of analysis work in an integrated manner. The spatial approach in educational innovation emphasizes spatial variables and utilizes the following nine themes of analysis:

1. Spatial Pattern Analysis:
Patterns refer to the distribution of objects, whether in points, lines, or areas, on specific parts of the Earth's surface. Spatial patterns can be interpreted as unique spatial distributions of geospheric phenomena on the Earth's surface.

2. Spatial Structure Analysis:
The term "structure" refers to the arrangement of symptoms in space. Spatial structure analysis emphasizes the peculiar composition of physical and non-physical symptoms, as well as their combinations, within a given space.

3. Spatial Process Analysis:

Spatial process analysis comprehensively focuses on the continuous development of geospheric symptoms through a series of events or gradual and continuous changes in space, leading to a specific end result or outcome.

4. Analysis of Spatial Interaction:

Spatial interaction analysis examines the reciprocal relationship and renewal process between geospheric phenomena in different spaces.

5. Analysis of Spatial Organization:

Spatial organization analysis studies the characteristics of the order and distribution of elements that form space, emphasizing the relationships or hierarchies between these elements.

6. Spatial Association Analysis:

The main objective of spatial association analysis is to determine whether there is a correlation between the distribution of certain symptoms and the distribution of other symptoms in specific spaces.

7. Spatial Comparison Analysis:

Spatial comparison analysis focuses on comparing geospheric symptoms between different regions. At least two areas are studied in this comparative analysis.

8. Analysis of Spatial Tendency:

Spatial tendency analysis builds upon patterns, structures, associations, or interactions previously discussed. It examines the trends and tendencies in spatial phenomena.

9. Spatial Synergism Analysis:

Spatial synergism involves the cooperative working of two or more objects of study, leading to the emergence of utility value or benefits that are greater or better than if each element worked individually. Spatial synergism analysis aims to identify spatial and sectoral characteristics suitable for regional cooperation, especially in disaster mitigation, to achieve better performance compared to individual efforts. This comprehensive analysis involves multiple regions.

Education, as an activity carried out from birth to the end, always requires innovation. Innovation refers to something perceived as new in terms of ideas, practices, or objects that are either realized or not, and are adopted by individuals or groups. It is applied through specific stages with the intention of meeting human needs or solving problems in the environment. Another definition of innovation is that it not only entails new ideas, practices, or objects, but also emphasizes their differentiation from what existed before or from others. It is this differentiation that adds value to an innovation.

In the context of education, innovation is closely linked to the activities of educators in the learning process. One area where innovation can occur is within classroom learning activities. Furthermore, innovation is necessary to prevent the interaction between educators and students from becoming monotonous over the years. Hence, innovation in education is imperative and should be pursued. One educational innovation that should be implemented in schools, especially in disaster-prone areas, and more generally in Indonesia in relation to disaster mitigation efforts, is an educational innovation that employs a spatial approach, thereby emphasizing the development of spatial intelligence.

The utilization of a spatial approach in teaching materials has an impact on the content of the material itself. There are five stages involved in the process of preparing teaching materials with a spatial approach: (1) determining the topic or problem, (2) identifying the location and distribution of phenomena or objects, accompanied by the use of maps, (3) explaining the reasons behind the occurrence of phenomena or objects in that particular location, (4) elucidating the relationship between the occurring

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phenomena or objects and relevant natural factors, (5) employing spatial analysis in accordance with its intended purpose (Handoyo & Sukamto, 2019). Thus, teaching materials play a vital role in learning activities.

The implementation of online learning during the Covid-19 pandemic has compelled teachers, students, and parents to become "technologically literate." This is because online learning requires the utilization of digital platforms such as Ruang Guru, Sekolahmu, Kelas Pintar, Zenius, Google Suite for Education, Google Classroom, Edmodo, Rumah Belajar, and Microsoft Office for Education (Daheri et al., 2020). Additionally, there are other digital platforms that can be used in the online learning process, including WhatsApp Group (WAG), Google Classroom (GC), Edmodo, and Zoom (Rachmawati et al., 2020).

The majority of teachers do not employ digital-based learning media, which has a negative impact on students' motivation to learn. During the online learning process, many students are not actively engaged for various reasons, such as a lack of access to online learning devices like cell phones and computers, living in areas without internet connectivity, and limited internet data. Digital media, in essence, can assist students in thinking at a higher level when solving various problems in the online learning process (Fahyuni, 2017). The limited use of digital media prevents students in border areas from developing advanced problem-solving skills during online learning.

Several factors contribute to the low level of digital-based learning media utilization in online learning processes in border areas. Firstly, the uneven development of technology-based infrastructure in border regions results in schools and areas lacking internet access, thus hindering online learning activities. Secondly, the absence of free internet access in border areas affects the availability of internet data for teachers and students during online learning activities. The community requires free internet services due to the low economic capacity of border region residents, making it difficult to meet the demands of online learning activities. The majority of individuals in these areas work as farmers, with low per capita income. Thirdly, teachers' limited knowledge in managing online learning activities, including the use of digital-based learning media, contributes to the issue. Teachers must comprehend the benefits of learning media and incorporate them into both online and offline learning processes.

Year	Initiative
2006	JARDIKNAS (Jaringan Pendidikan Nasional) & INHERENT (Indonesia Higher Education Network) oleh Kementerian Pendidikan dan Kebudayaan
2010 - 2014	Rencana Strategis bertujuan untuk menyediakan dan meningkatkan kualitas infrastruktur pendidikan dengan memperkuat dan memperluas penggunaan TIK dalam pendidikan oleh Zenius Education
2015	Proyek Palapa Ring oleh Kementerian Komunikasi dan Informatika
	Hibah koneksi internet dan perangkat TIK untuk pembelajaran di area 3T oleh Kementerian Pendidikan dan Kebudayaan
2018	Program Digitalisasi Sekolah melalui BOS Afirmasi dan BOS Kinerja oleh Kementerian Pendidikan dan Kebudayaan
2019	Penyelesaian Proyek Palapa Ring diumumkan oleh Kementerian Komunikasi dan Informatika
2020	Bantuan kuota data internet untuk siswa, guru, mahasiswa, dan dosen oleh Kementerian Pendidikan dan Kebudayaan serta Kementerian Komunikasi dan Informatika
2021	Peluncuran Program Sekolah Penggerak untuk mengubah ekosistem pembelajaran bagi kemajuan Indonesia oleh Kementerian Pendidikan dan Kebudayaan serta Kementerian Komunikasi dan Informatika

Figure 2. Timeline of digital education initiatives - Internet, infrastructure and devices
(UNICEF Indonesia, 2021)

Despite efforts by the government and private sector to improve internet connectivity, digital inequality has hampered the government's efforts to support digital learning during the pandemic. In August 2020, President Joko Widodo announced that the government would allocate IDR30.5 trillion (US$2.1 billion) in the 2021 state budget for ICT development to accelerate digital transformation for governance and promote connectivity inclusion (Eloksari, 2020). However, the implementation of Distance Learning (PJJ) is less than optimal due to the problems of uneven electricity networks, weak connections, affordability, and accessibility in remote or hard-to-reach student living locations (Prabowo & Setiawan, 2020). This condition is especially experienced by communities in Eastern Indonesia, which are spread over a large land area and have been commonly known for their poverty characteristics and low income.

Conclusion

The issue of academic supervision in the 3T areas of North Sulawesi Province arises due to distance limitations and a limited number of school supervisors. To address these challenges, an online-based academic supervision system has been designed, which can be accessed by the education office, supervisors, principals, and teachers. This system aims to facilitate remote supervision processes and enhance teacher professionalism. It is essential to promote equal access to the internet in order to overcome the limited connectivity in the 3T areas. Additionally, although there are various innovative instructional strategies in education, further research is needed to assess their effectiveness and efficiency.

Spatial reasoning intelligence refers to the ability to think in images and comprehend, transform, and recreate various visual-spatial aspects of the world. This type of intelligence is crucial in addressing the spatial diversity that contributes to disasters in Indonesia. Spatial intelligence in education focuses on several objectives: (1) the ability to understand and solve problems in daily life, as well as at local, regional, national, and global levels; (2) collaboration with various disciplines; (3) the development and advancement of new technologies; and (4) an understanding of the interaction processes between humans, the environment, and society, leading to geoliteracy. Educational progress should always be aligned with the personal development within a specific spatial context. Therefore, innovation in education is imperative and must be pursued. One educational innovation that should be implemented in schools, particularly in the archipelago and border areas of Indonesia, is the spatial approach, which aims to comprehend specific phenomena and gain a deeper understanding of space as the primary variable in any analysis. When implementing this spatial approach, it is recommended to tailor the selection of analytical themes, either individually or in combination, while considering students' potential and their living environment.

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