

## **Handphone and Students Growing in the example of Covid- 19; Lesson from Indigenous People in Limbungan, Lombok Timur, Indonesia**

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### **Abstract**

*The pandemic has changed how students learn, including accepting technology in indigenous peoples' environments which is commonly unrevealed. This research discusses 1) how is students' literacy towards using smartphone technology in the context of learning before and after the pandemic in education units? 2) How do indigenous peoples understand modernization amid the substantial inheritance of ancestral traditions still practiced? Is it acceptance or rejection? To answer these research questions, ethnographic studies used Symbolic Interactionism analysis to observe changes in population behavior. There are two purposively selected sample groups; groups of students in indigenous environments, community leaders, and some randomly selected individual representations. Participatory observations, in-depth interviews, and related literature reviews were utilized to collect data supplemented by questionnaires disseminated through the help of google forms submitted to groups of students. The findings conclude that the Limbungan community is open to accepting technological media. Private television broadcasts after the fall of the new order regime contributed to campaigning for the importance of schools. This prompted the emergence of a wave of Limbungan people attending school. The pandemic has significantly improved digital literacy among indigenous peoples, even though most tribes in some areas have refused. School-age children are quite adaptive when using mobile phones to study during the pandemic. It can be said that indigenous groups in Indonesia do not always reject technology and the changes brought about in children's learning methods.*

**Keywords:** Covid-19, handphone, Indigenous, students' growing.

### **Introduction**

In this era of revolution 4.0, people face economic competition, information technology, infrastructure, world industry (Ling et al., 2022; Marcon et al., 2022), and natural and human resources. This revolution does not emphasize technological sophistication or artificial intelligence as a new set of capabilities (Davy Tsz Kit et al., 2022) but also changes in human behavior influenced, for example, in the context of corporations and customers (Gelderman et al., 2011). With competition for and creating jobs, and more resource-limited with the increase in population each year, utilizing local people's experience, digital literacy, and intellectuality is the answer. The culture of literacy, for example, the mastery of science and technology by the 21st century, has been integrated

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starting from the family, game environment, and schools (Febliza & Okatariyani, 2020), where gadgets are widely used (Purnama et al., 2022). Digital literacy is currently being taught globally in education units (Beck et al., 2021). This is a center where digital activities inside and outside schools have been massively practiced, even in remote rural areas. Culture, as one of the human products, is essential to consider its preservation because technology can succeed one day erode the role of culture in society. In a positive sense, culture can undoubtedly adopt the positive value of an extra global change. However, sometimes the infodemic flow of information (Guerola-Navarro et al., 2023) and educational qualifications often shift the way people think in a particular cultural community.

Globalization has created an openness of digital skills to educational infrastructure (Aydin, 2021; Jang et al., 2021) in almost all parts of the world, including Indonesia. The appreciation of human development through school buildings has been evenly distributed even to remote areas where general geographical conditions are difficult to access by transportation. Public awareness of educational needs can change mindsets and habits. Not a few findings confirm that the influence of information technology (social media) encourages people to open themselves to information and penetrate the life of adolescents (Chen et al., 2021). The factor of spontaneous need and insistence led to widespread acceptance of technology. In the context of school education, the spread of Covid-19 in 2019, for example, has dramatically impacted the economy, finances (Kumar et al., 2022), and the world of education. This condition made the change from offline to online learning, causing a culture shock for some teachers and students (Febliza & Okatariyani, 2020), although it can have a positive effect on students (Purnama et al., 2021). Technological adaptation is a must because everyone is in need. From economic transactions to learner activities in the classroom, technological devices are solutive power, answering what people think and need.

Digital literacy in the context of indigenous peoples is not a promising offer. They will choose to live and live on their terms. Outside cultural contact is restricted and strictly prohibited, although some indigenous peoples in certain areas are more flexible; they received some of what was witnessed in Perigi Village, East Lombok. On the other hand, digitalization is a life skill in which 79.5% of users are teenagers (Febliza & Okatariyani, 2020). This technological disruption makes school-age children happy to use the internet and affects interactions inside and outside school (Moreno-Morilla et al., 2021). Sensitivity to the virtual world and using it as a socialization medium is a characteristic of digital native adolescents. Currently, it has been massively used by students, including in the environment of indigenous peoples, Perigi, Lombok Timur.

Perigi Village, like most indigenous communities in Indonesia (Husain et al., 2021), is one of the locations that still preserves the identity of the Sasak tribe and is a local cultural heritage of Lombok island. Perigi village, as a symbol of the survival of the Sasak tribe, is very different from what has been discussed in some literature about indigenous peoples in general.

Interestingly, Perigi, one of the community *ma* with traditional houses as its identity, does not entirely reject the influence of technology. Different things happen, for example, in some cases of indigenous peoples who do not accept technology or outside influences at all. A closed life, the restriction of physical contact, and the rejection of novelties outside of the habits of society are taboos. Indigenous peoples are synonymous with a simple and natural way of life. The education they only obtained for generations. The identity of the traditional community in an area involves traditional leaders and local communities. Cultural richness with a variety of histories, the old figures involved are social capital that they believe must be maintained for the preservation and purity of the culture.

In terms of behavior, Perigi has accepted modernization. Changes in people's behavior with the consumption of news through television channels and the installation of wi-fi or the internet in the village prove that they are open. The population classified as teenagers is not limited to access to technology; for example, HP as a means of communication and learning in schools (Heflin et al., 2017) by (Khaddage et al., 2016) said useful. They are given discretion. The pandemic requires them to access learning information via smartphones without restrictions. Not a few teenagers in indigenous communities outside the school play mobile phones for various purposes. Digital natives are prominent characters in the 20th-century aboriginal population seen in the village of Perigi even though their ancestors still hold tight to the principles of customs that are still practiced today. For example, when starting to grow crops, traditional farming methods must be done by elders who have not yet become extinct. They still follow conventional practices as directed by the customary chief. The morphology of the traditional house with weeds as a roof is still found according to the shape of the ancient house; it remained original.

Several previous research references have discussed literacy in remote communities from different perspectives. Research has been carried out by (Widagdo & Susilo, 2018) in rural India. They investigated an inclusive digital literacy framework, overcoming the problems of low financial literacy, health, and various other obstacles, such as the lack of computer information technology facilities. This research talks about efforts to build the literacy of rural communities in an integrative manner by civil society, schools, and the Government to improve digital skills and life skills. The relevance of research on digital literacy is also carried out by (Pillai et al., 2018). His study discusses training programs for 1000 indigenous people, especially adolescents and adults, in digital using tablet technology in native languages to reduce the impact of consumption of tobacco, alcohol, and drugs. The closest research to what we are reviewing is the research conducted (Zidny & Eilks, 2018) using ethnographic studies. Local wisdom is a proposal about the trans-disciplinary aspects of science that students must learn where the socio-cultural role of the local community is a legacy of knowledge that science provides understanding, as in the Baduy community. Previous research references prompted us to try to uncover 1) the level of digital literacy of students in the indigenous community of Perigi, East Lombok, and 2) how indigenous peoples understand modernization amid the solid ancestral traditions passed down for generations.

## **Literature review**

### **1. Indigenous people**

How do indigenous peoples adapt to the modern world? How do they position massive and unstoppable technological developments? During people's lives full of dependence on technology, whether indigenous peoples coexist as is the case with society in general or vice versa, rejecting a technological civilization that is all-around with sophistication. What is the lifestyle chosen by indigenous peoples?

Various studies have been conducted to answer the question with varying degrees. In general, the most familiar thing about the life patterns of indigenous peoples; they tend to self-isolate the life of modern society in general (As et al., 2020). It refers to indigenous peoples refusing to follow the community's lifestyle (Shea & Thornton, 2019) and, not accepting technological developments, refusing to use electricity, modern means of communication, and transportation. Their daily life is accompanied by traditional technology. In the context of indigenous peoples in Indonesia, self-isolation can be seen in how indigenous people of the Baduy Tribe, who live in the forest's interior, Mountainous rainforest in Kenekes Village, Lebak Regency, Province of Banten (Rohmatullayaly et al., 2017). The Baduy tribe is reluctant to imitate the lifestyle of modern society, rejecting advances in technology and education and not engaging in social services or state facilities, economics, and politics.

Indigenous people of Baduy claim that technology and education can dilute their beliefs and customs, so they must be kept from civilization. The ban on the use of modern technology is stringent. The agricultural production tools they use are still in traditional form; Fertilizers and drugs are derived from animal and natural manure and prohibit using modern means of production, chemical fertilizers, and pesticides to care for environmental sustainability and sustainability. Methods that show the preservation of nature are much more valuable than the current economic value (Murhaini & Achmadi, 2021). The ban also applies to other users, electricity, transportation, modern means of communication, modern home furnishings, and even indigenous people of Baduy strictly prohibit their day-to-day activities from being published using electronic media. This condition encourages them to continue walking when they want to visit all destinations. At the same time, the marriage tradition of the people of Baduy adopted a system of endogamy – marriage with a fellow tribe. If this is violated, the consequence is to leave the Baduy tribe. Arrange the customs imposed into the guidance of their lives – the type of clothing until the way they use the clothes is determined by the businesses levied. However, their knowledge develops based on experiences that allow them to innovate (Hadlos et al., 2022) that are passed down from generation to generation (Himmi et al., 2014).

Not much different from the indigenous people of Naga Village, Salawu District, Tasikmalaya regency, province of West Java, they still adhere to strong customary law in daily life (Setyowati, 2022). Indigenous people of Naga Village and the Baduy people who isolate themselves from technological advances and choose not to use electricity and communication and transportation technologies. Housing materials are derived from wood and bamboo (Harashani, 2018; Kurniasih, 2019). Their primary source of livelihood rests on traditional agriculture, natural wealth, and the sale of handicrafts. However, the natural beauty mingled with the distinctive culture is an attraction for tourists to visit the village, which affects the additional income of the community. However, the origin of the existence of indigenous people of Naga Village is still not reaping bright spots. Historical details about the founding of a community with a culture that is still deeply rooted in this tradition, including when it happened, who the originator was, and what the motivation was, there has been no research that can be a concrete reference.

From a moral value point of view, the existence of both indigenous people takes care of biodiversity and maintains their source of livelihood (Franco-moraes et al., 2021), and becomes a home of cultural diversity (Gaveau et al., 2021; Sahertian & Jawas, 2021) who uphold local wisdom. The traditional agricultural pattern carried out by the two indigenous people is a form of love for the environment and an effort to preserve nature; they show a concrete form of sustainable agriculture (Paing et al., 2022) – not just profit-oriented. What they have done is worth considering (Kurnio et al., 2021). The lifestyle they choose is the side of equality with equitable economic control – rejecting consumptive culture and concentrating the economy on the few. The traditional ceremonies they performed as a form of tribute to their predecessors. A lifestyle that may be rarely applied by modern society is firm.

However, there is a striking difference in lifestyle between the two indigenous tribes. The development of the indigenous people of Naga Village is not as strict as the rejection made by the Baduy people, and they are more open in providing Access to information to visitors. Allowing outsiders to document the indigenous activities of the community, and there is no prohibition for people to access education and information technology, which contrasts with the customary rules imposed by the inland Baduy indigenous people. The indigenous people of Naga Village do not wholly reject technological advances as the indigenous people of Baduy do.

The two studies prove that indigenous people's behavior is very diverse. Location, historical background, and technology determine the different lifestyles of each tribe. In

Indonesia, there are at least 2,371 communities spread across 31 provinces, with the most distribution being the Kalimantan archipelago with a total of 772 and the island of Sulawesi has 664 indigenous communities (Andriarsi, 2020). Of the total number and considering that the literature on indigenous peoples is still minimal, a more in-depth study becomes necessary to understand indigenous people as a whole. At the same time, generalizing the pattern of life and the values and belief of indigenous peoples is undoubtedly not the right course of action. Every indigenous people has their lifestyle and views.

This study focused on discussing the development of the indigenous people of Limbungan, Perigi Village, East Lombok District, and West Nusa Tenggara Province. The Limbungan indigenous community is one of the few indigenous communities still on the island of Lombok. In its development, the Limbungan indigenous people are not anti-technological advances; they coexist with modern technology even though they are not entirely like society in general. Models of agricultural production run with semi-modern characteristics. Some use modern tools, and some use traditional tools. In harvesting agricultural products, the indigenous people of Limbungan must follow customary rules; waiting for the conventional figures to harvest new ones may be followed by other residents. In the educational context, people are free to access education without prohibition.

On the contrary, the indigenous people of Limbungan tend to point themselves up regarding their historical background. This is contrary to the way they accept modern technology. An explanation of the indigenous people of Lumbungan, Perigi is elaborated in the following session.

## 2. Digital literacy at school

The development of technology is unstoppable in the era of globalization. Modern technology almost touches all realms of human life and develops as a vital aspect (Gui & Argentin, 2011; Zhao et al., 2016). But for some people, technology is considered a yang taboo and should be avoided; indigenous people claim it threatens a civilization that has been built (Rohmatullayaly et al., 2017). However, as it progressed, and the insistence on necessity, technology eventually changed the life patterns of some indigenous peoples – they coexisted with modern technology. Covid-19, for example, encourages people to access technology for a relatively longer duration – inspiring people to learn and communicate digitally. Society has no choice but to adapt to technology. The same is true for learners. The teaching and learning process carried out during; The situation forces them to become digital media users amidst a low level of digital literacy education.

This section is directed to examine further how the development of digital literacy is applied to the context of students with an indigenous people background. The discussion of digital literacy leads to the use of digital technology as a teaching medium for students in middle schools and students living in indigenous people's areas. The influence and role of digital technology on student development have become a familiar topics among educators (Walton et al., 2018). Still, it is different for students who are indigenous people. The study of students' digital literacy level among indigenous peoples has not received intense attention from researchers. A common assumption among scholars is those good learners from indigenous circles have the same understanding as other learners. In fact, the authors have not found an in-depth study of the level of knowledge of digital literacy of students who come from among indigenous peoples.

Educational institutions encourage students to access digital technology to increase effectiveness and efficiency and consider that almost all social activities are related to technology. Digital literacy can be helpful for people to engage and access public service (Mcdougall et al., 2018). It's hard not to be tempted by the promised benefits of digital technology (Rose & Detlor, 2021). Man lives in two domains; reality and digital. It may not be balanced, reality dominates, but the use of digital technology cannot be

underestimated. Furthermore, the use of technology should not be viewed from one side; objective judgment should be put forward, considering that technology is like a double-edged knife, full of impact but not a few young (Hutchison et al., 2020; Polizzi, 2021).

In the context of education, digital technology facilitates the teaching and learning process; students have easier Access to the information that accompanies them to be more literate about the development of the outside world, improve skills and innovative thinking (Checa-romero, 2015; Nain & Chaudhary, 2022; Prins, 2016). They can connect with people from different regions, share activities, develop the idea (Pedersen, 2020; Williamson et al., 2021) and enable them to have the opportunity to support a better career and well-being (Hsu et al., 2018). From the point of view of indigenous peoples, with the use of information technology, they can promote their culture and become more open to the outside world – adapting to changing times. Learners from indigenous peoples are connected to their relatives and can also develop social and emotional relations (Dezuanni, 2018; Tsatsou, 2017); So, it is not only confined by an established culture, opening up to a broader scientific treasure.

On the contrary, for indigenous peoples, the strengthening of digital technology is a real threat to what has been built by their ancestors. There is a deep concern that the younger generation is slowly no longer interested in the traditions of their predecessors. Moreover, pay attention to the customs in the globalization era and the demand for extra complex business. Students who are given easy Access to digital technology tend to choose to be connected to the outside world instead of deepening and developing their surroundings. Although, it is difficult for individuals to establish their background (Pierce, 2015). In addition, users are eroded by the flow of new cultural technologies to the point of forgetting the customs that their predecessors had built – it is not easy for indigenous peoples to exist during the current social order. However, in its development, few digital technologies are directed at deepening socio-cultural and emotional aspects (Bowden & Aarsand, 2020).

The changing outlook on life and behavior that digital technology is affecting is often at odds with old traditions. Therefore, many users cannot take advantage of the opportunities presented by digital technology (Kahne et al., 2019). So naturally, for some indigenous peoples, modern technology should not exist from their civilization. In education, digital learning mechanisms impact unequal prospects; rural with all limitations – cities with higher incomes access the internet with high quality (Sanz-labrador et al., 2021). Furthermore, learning digitally tends to produce low accuracy, distraction (Kuznekoff et al., 2015), reduced empathy (Selwyn et al., 2016) and not getting a complete understanding, causing the response to be slower (Cladis, 2018). Worst of all, educational institutions no longer prioritize humanists but lead to profit (Komljenovic, 2021).

The two impacts position indigenous people in a dilemma, following technology development that threatens their culture or ignores the effectiveness and efficiencies offered. However, the development of technology is unstoppable, and slowly but surely, change is a necessity. From this context, the present study reviewed the responses of participants in middle schools who have indigenous backgrounds, and they can adapt to the medium of learning information technology both in knowledge and economics.

They are integrating digital technology in educational institutions in rural areas takes time to adapt. Students and teachers must adjust to the update. For teachers, it is not entirely possible to redesign the teaching content of print media into digital. The study by (Colwell et al., 2013) assessed that teachers struggle to carry out digital media-based teaching. Education in rural contexts faces more complex problems. Aside from less knowledge and experience, Access to technology from both materials and networks is more complicated.

Moreover, for siswa, the level of teacher participation, interaction, control, and direction decreases. However, further research on learners' development and literacy levels in indigenous communities is still needed. This article explores students' development and literacy level in the indigenous community of Perigi, East Lombok District, and West Nusa Tenggara Province and how they understand the development of modernization.

## **Methods**

The identity of the Sasak tribe, Limbungan Perigi Lombok Timur, is a collection of individuals tied to customs. The agreed consensus then gave rise to a culture that collectively symbolized the coherence of living together. This is ethnographic research in Limbungan Hamlet, Perigi East Lombok, with purposive random sampling as a sampling method. The data collection procession is divided by targeting two objects; 1) a community of junior and senior high school students in indigenous communities and 2) community leaders (called elders) who have settled permanently for a long time. The data collection instrument using participatory observations and in-depth interviews was aimed at community leaders and several individuals who understood the symbol system, social behavior, and cultural epistemology in the Limbungan Perigi indigenous community. This instrument captures information on how the indigenous people of Limbungan Perigi, with their social systems, are photographed on lifestyle, social mobility, community organizations, history, and ecological position respond to social dynamics such as the impact of technology. The characteristics of this data require 4 informants who are selected to be representative in answering the research questions asked; a community leader, a youth leader, and two local people. Furthermore, the google form was created to summarize data on learning technology literacy by students from Limbungan Perigi, which was distributed to the junior and senior high school student community in Limbungan, Perigi totaling 30 people.

Data analysis adopts the Symbolic Interactionism theory popularized by Herbert Blumer to answer the data sought as formulated in research questions. This theory answers the understanding of specific cultures through human behavior, for example, how the Limbungan indigenous people respond to cultural changes due to technology, for instance, in the case of the influx of electricity, television, internet networks, and the use of smartphones by their children, both for communication and as a medium of learning in schools. Behavior change responds and meaning whether the indigenous people of Limbungan Perigi accept these changes as a result of technological eruptions that must be friendly or refuse for reasons of maintaining the purity of culture and customs that have been ingrained for a long time.

## **Findings and discussion**

The Limbungan community is known as one of the indigenous groups on the island of Lombok. They occupy two hamlets in the Perigi area. As a village, Perigi is located in East Lombok Regency, Nusa Tenggara West. The location of East Lombok is 2,679.99 km<sup>2</sup> consisting of 1,605.55 km<sup>2</sup> (59.91%) of land and 1,074.33 km<sup>2</sup> of the ocean (40.09%). Perigi itself is one of 254 villages in East Lombok.

Perigi Village has a hilly atmosphere covering an area of 3,752 hectares (Wahyudi & Wikantiyoso, 2021). Sembalun Bumbung borders this village in the north, North Pringgabaya and Labuhan Lombok in the south, Jeringo Peak in the east, bordered by Mekar Sari and Suntalangu in the west. The height of this village is 600 meters from sea level, with the highest point in Limbungan (Susilo & Umniati, 2021). With the contours of a reasonably cool mountainous area, the village, which is 45 km from the capital of East Lombok Regency and 95 km from the provincial capital, is now inhabited by a fairly



diverse community. Community groups that come from outside Perigi village occupy the South Limbungan area.

Meanwhile, the Limbungan traditional group, as Perigi natives, live in East Limbungan and West Limbungan. Most of the population in Perigi works as Rice, Corn, other Vegetables, and Tobacco farmers. The Indigenous People of Limbungan themselves prefer to grow Rice and tobacco. This community stores the harvest in the Granary next to the residents' homes.



Fig. 1. The house of the Limbungan

According to several sources found in Perigi and Limbungan, the Limbungan people in the past were known for their persistence when fighting Dutch colonialism (Malawani et al., 2021). The beginning of the war between the Limbungan people and the Dutch troops was because of a request to pay taxes (tribute) submitted by the Dutch side. This war is well recorded in the story of Siat Limbungan. Siat Limbungan is led by Patih Darwasih, Ratnayu and Guru Kepak. After being defeated by the Dutch troops, they and some captured figures were banished to the island of Sumatra. This story is closely related to the existence of the East Limbungan and West Limbungan traditional houses. The East Limbungan traditional house is named *mame* (male), and the West Limbungan traditional house is called *nine* (perempuan). The naming of these two traditional houses became a symbol of the meaning of Limbungan people's equality between men and women. The sense that was formed many years after the independence of the Indonesian state played a role in opening up equal opportunities for boys and girls from Limbungan for school.

Limbungan Timur and Limbungan Barat are led by the same chieftain. It is said that their tribal chief lived in the Pringgabaya area. For the person who takes care of the traditional house, it is left to the hands of the leading tribe community. The non-settlement of the head of the Limbungan people tribe is closely related to the historical background of the Limbungan people with the Balinese. In the 19th century, the arrival of the Balinese to the Limbungan region made the Limbungan people move to the Pringgabaya region (Wahyudi, 2022). They then returned to Limbungan after the departure of the Balinese from their village in the early 20th century.

As one of the indigenous peoples on the island of Lombok, the Limbungan people are connected from the family side with the Jeringo people who live in the top of Jeringo. The Limbungan people are known to many people in Lombok as a tribe that still maintains a solid endogamous marriage. Even so, they have a relatively good level of education. Meanwhile, the Jeringo people are known as a tribe mixing with the Flores people but with a low level of education. Of the total male population of 369 people and a female population of 466 people in Limbungan, 320 people finished their education in



elementary school, 295 people finished their education in junior high school, 280 people completed their education in high school, and 35 people continued in Strata 1 (Limbungan, 2020)

As for the destination school, the Limbungan people send their children to schools in Perigi village. Based on 2020 data, the number of schools in Perigi is 19 (Wahyudi & Wikantiyoso, 2021). Kindergarten schools with 5 schools, Elementary Schools with 6 schools, Junior High Schools with 6 schools, and High Schools with 2 schools. To study at the University level, Limbungan people continue their education at Hamzanwadi University in Pancor and several other campuses in Mataram. Although many of them are in school, a small number continue their university education. However, until now, the people of Limbungan are still known by many Lombok people as people who are not open to their history and still maintain the old way of life of the Sasak people.

#### Mobile Phones, Televisions, and Educated People

Talking about the Limbungan people who attend school, several sources said that many Limbungan people started school after cell phones and televisions entered their homes. Information about the school has been known to the people of Limbungan for a long time, namely since the 1990s (Komalasari et al., 2020). They began to send their children to school many years after the New Order fell in Indonesia. At this time, private television companies began to increase in Jakarta, and mobile phones started to be widely known in various other regions of Indonesia. In Limbungan, television and mobile phones started to enter the homes of the Limbungan people after 2005.

Table 1. Percentage of Media Use in School Children in Limbungan

Media Type	Education Level	Percentage of Media Use
Television	Primary school	85%
	Junior High School	70%
	High School	50%
Mobile	Primary school	55%
	Junior High School	70%
	High School	85%

The arrival of Television and Mobile Phones in the homes of the Limbungan people encouraged them to get to know the outside world more, including about school. Brief socialization about education on Television of the Republic of Indonesia and Indian films featuring schools provide additional awareness of the importance of attending school. This can be seen from the increasing number of children who attend school in Limbungan yearly. In 2020, the number of children studying in Limbungan reached 320 people. This figure is relatively high compared to the number of schoolchildren in other indigenous groups in Banten Province. The Baduy indigenous people in Banten do not know formal schools such as elementary, junior high, and high schools (Basuki, 2021). They are studying the basics of religious science and customary law through teaching papagahan or traditions of teaching each other fellow citizens. This way of learning makes it difficult to record the number of Baduy people who usually read. In addition to Baduy, other tribes that gain knowledge by learning non-formal are children in the Orang Rimba, Jambi (David et al., 2016). By looking at this qualitative comparison, it can be said that the openness of the Limbungan people to schools indicates that indigenous peoples are not always resistant to formal education in Indonesia.

#### Covid-19 Pandemic and Learning with Mobile Phones

During the Covid-19 Pandemic, one of the biggest challenges people in many villages in Indonesia faced was adapting to learning from offline to online. Some teachers struggle to manage distance learning and only focus on curriculum completion. Meanwhile, some parents find it challenging to accompany their children to study online because of the busyness outside the home. This problem will continue until the number of new covid-19 patients decreases in Indonesia in 2021 (Suyadi & Selvi, 2022).

Unlike many places in Indonesia, children in Limbungan who study at school quickly adapt to the online learning system used by teachers during the Covid-19 Pandemic. Through several learning programs that can be searched through the Google platform, the children learned a lot of languages, and social and mathematical materials with their friends. In addition to being at home, they can do it while helping their parents when growing Rice or Tobacco in the fields. One of the female students, "R," revealed that studying online allows them to search for the material they want to learn freely. Classrooms bordered by walls melt away upon entering internet spaces that tend to be borderless.

In fact, before the pandemic era, elements of society had accepted technology as part of their lives. Communication using smartphones, for example, has been practiced since the outbreak of the technology industry, for example, the massive influx of television from one village to the village. Using electronic devices to communicate both near and long distances is carried out by school-age children. Among elementary, junior, high, and high school students, mobile phones are a rampant medium for their lives even though indigenous people sometimes reject openness. They use technology as a supporting tool to make it easier for them to do many activities, study, and do business for self-development.

Table 2: Digital literacy (smartphone use) students aged 13 to 18

No	Question	Percentage	
		Yes	No
1	Did you use your cell phone before the pandemic?	100	0
2	Do you use a cell phone at home?	100	0
3	Are technological tools allowed in your home environment (electric internet, radio, tv, etc.)?	100	0
4	Do parents forbid you to use a cell phone?	4	100
5	During a pandemic, do you use cell phones?	96	4
6	Did you use a smartphone when teaching and learning process in the classroom?	100	0
7	Did you use a smartphone in search of your material resources when pandemic?	100	0
8	What are the uses of cell phones during a pandemic?	Study 40 Social media 42 Main game 18	
9	Does the use of cell phones help in the teaching and learning process?	96	4
10	With technology, is it easier to help you learn more knowledge?	30	70
11	Are you comfortable learning remotely using your cellphone?	20	84
12	Is there any impact on increasing knowledge when using a cell phone after the pandemic?	74	26
13	Has digital literacy increased after using a cell phone during a pandemic?	72	28
14	Digital skills that have increased after the pandemic	Social Media 51 Editing 15 Other 34	
15	What are parents' responses to learning to use cellphones?	Received 84 Rejecting 16	

During the pandemic, the use of technological tools such as cell phones, tabs, and laptops among students in the traditional home environment in Limbungan and its surroundings in learning increased because the learning system was switched to an online system which was initially that face changed to online. Many parents buy their children tablets and smartphones so that they can take classes and complete assignments given by their teachers. The pandemic limited the space for individuals to move. Therefore, online learning is a way to discuss with teachers and school friends, send assignments and use technology to learn. Interestingly, the pandemic has changed the learning climate of

students to be faster, not only from middle and high school but also from primary school age, even though it remains with the help of parents.

The entry of technology in the Limbungan environment is welcome in the traditional house environment. Parents in the pre-pandemic period did not prohibit their children from using cell phones; the pandemic required them to be more friendly with technology. During the pandemic, using cell phones are increasingly used by students because it helps them facilitate the teaching and learning process. The survey results from table 2 concluded that most of their parents accepted the changes. As many as 84 percent of respondents stated that using smartphones for students was acceptable in the neighborhood, and only a few disagreed as many as 16 percent. This cellphone is mainly used for learning, 40 percent, and social media, 42 percent, and a small part is used for playing games, 18 percent. Most respondents stated that using a cell phone helps improve skills, even though most say online learning is no better than a live meeting. Interestingly, there is a significant increase in digital literacy due to the pandemic, such as social media operation, editing, and other related skills.

### **Discussion: media, modernization, and pedagogical problems on indigenous people**

The study about indigenous education has offered a discussion of complementary characteristics and potential tensions between pedagogical pathways and teaching models. Looking for traditional Indigenous teaching models promotes local knowledge within Faculties of Education in Indonesia and indigenous through which they are transmitted one central question. This pathway presents opportunities to advance Indigenous learning quality beyond the university and people, providing adequate support for students. It may extend the conditions for the advisability of Indigenous knowledge in many countries. (e.g., Indigenous peoples in Indonesia and pieces of knowledge are relegated to the past) (Hale & Lockard, 2022).

In Indonesia, Pedagogical methods contribute to the school development among indigenous through privileging individuals and learning groups. By restructuring the teaching practicum and reconfiguring media, they try to understand the indigenous's child needs. By Ladson, these is known as urban settings with racially diverse student populations (Madden, 2015).

Indigenous knowledge is essential for Indigenous people and also for the world as a whole. For example, Indigenous knowledge in Indonesia says about the ecosystem and how communities can ensure the sustainability of natural resources. Cajete relates Indigenous knowledge to education by seeing the elements of Indigenous education, including the recognition of Indigenous languages as a part of learning (Utami et al., 2021). Indigenous education recognizes that culture and each person contain the key to both sides' connection between well-being and development. In this way, the interconnections are becoming the universal principles of Indigenous education. So, Indigenous education aims to teach a way of life that sustains both the individual and the community by integrating "human individuality with communal needs."

### **Conclusion**

Since the Covid-19 pandemic in 2020 in Indonesia, many regions in Indonesia have experienced difficulties when adapting to the martial-arts method offered by the Government, namely learning from home. This learning method uses more cellphone media as a student learning tool when studying online at home. The obstacles experienced by many of the students in other regions of Indonesia are in the form of difficulty getting or accessing cell phones. This is not too surprising because development in Indonesia is

not evenly distributed. On the other hand, because it is considered to increase the destructive power of tradition, this method has experienced significant rejection among many indigenous groups in Indonesia. Only a small number of indigenous groups accept this teaching method, one of which is the Limbungan Indigenous Tribe in East Lombok.

People who live in Limbungan are known for their openness to accepting technology media. They sent their children to school after the New Order (Orba) Government fell. Indian and Indonesian films they watched on private television showcased the importance of schools. This prompted the emergence of the first wave of Limbungan people who attended school. This number continues to grow until the arrival of the Covid-19 pandemic. The number of Limbungan children studying at school has reached 320 people. Unlike children in other tribes who refuse to use technology in learning, these children are pretty adaptive when using cell phones to learn during a pandemic. They use this technology to find information and complete tasks assigned by their teachers at school. Looking at the reality, it can be said that indigenous groups in Indonesia do not always reject technology and the changes brought about in children's learning methods.

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