Towards effective engagement: A scoping review of strategic communication mechanisms with Indigenous communities

Sarmila Md Sum¹, Shahril Mod Husin², Nurul Darsani Amat Darbis²

¹Faculty of Social Science and Humanities, National University of Malaysia ²Regulatory & Environment Science Unit Tenaga National Berhad Research

Corresponding: Sarmila Md Sum (email: sarmila.mdsum@ukm.edu.my)

Received: 1 October 2024; Accepted: 11 August 2025; Published: 20 August 2025

Abstract

Interacting with indigenous people could bring about several challenges due to historical and cultural differences. This research aims to identify and analyse strategic communication mechanisms with indigenous people. It presents a recent review of the communication mechanism used to foster effective engagement between Indigenous people and non-indigenous organizations. Online articles from Google Scholar, Semantic Scholar and UKMLibrary were used. The terms used for reviewing the articles were strategic communication, communication mechanism, indigenous people, and Orang Asli. The scoping review protocol was used for this study. A total of 29 relevant articles published from 2003 to 2023 were filtered and grouped into three major themes for review: cultural sensitivity, community engagement and interpersonal connection. Findings suggested that although previous research had examined the communication mechanism with Indigenous people, there was limited research on communication strategy among different Indigenous communities. While overarching principles exist, each community possesses its own distinct values, languages, and communication preferences. Comprehending these intricacies is crucial for customizing communication techniques successfully. Effective communication with indigenous people necessitates a profound comprehension of cultural, historical, and social settings.

Keywords: Communication mechanism, effective communication, Indigenous people, scoping review, strategic communication

Introduction

Approximately over 476 million indigenous individuals reside in around 70 countries. They uphold their distinctive traditions and maintain social, cultural, economic, and political traits that set them apart from the prevailing societies within their respective regions. These indigenous communities are dispersed globally, from the Arctic to the South Pacific. According to a commonly accepted definition, they are the descendants of those who originally inhabited a particular country or geographic area before people from different cultures or ethnic backgrounds arrived (World Bank, 2023). Indigenous Peoples are distinct social and cultural groups that share collective ancestral ties to the lands and natural resources where they live, occupy, or from which they have been displaced

(United Nations, 2022). They frequently align themselves with familiar leaders and organizations for representation, which are often separate or distinct from those in mainstream society or culture. Many Indigenous Peoples still maintain a language distinct from the official language or languages of the country or region in which they reside (Coluzzi et al., 2017). Indigenous Peoples frequently find themselves without official acknowledgement of their lands, territories, and natural resources. They are often the last to benefit from public investments in essential services and infrastructure. Furthermore, they encounter numerous obstacles when it comes to full participation in the formal economy, gaining access to justice, and engaging in political processes and decision-making (World Bank, 2015). Different families, clans, nations, languages and ceremonial groups live within most geographically discrete Indigenous communities. Some of these groups have a historical attachment to the place; others have custodial land rights in that location (Australian Institute of Health and Welfare, 2007). Numerous scholars emphasise the significance of cultural sensitivity and respect in communication with indigenous communities (Claudie et al., 2012; Cleary, 2012; Hedge et al., 2020).

Indigenous communities around the world face long-term socioeconomic, cultural, and political challenges because of historical marginalization, systemic inequities, and external pressures on their lands, resources, and governance systems. These challenges manifest themselves in a variety of interconnected ways, including limited access to economic opportunities, appropriate health services, exclusion from land and resource decision-making processes, threats to language and cultural continuity, and disproportionate exposure to environmental risks (Berkes, 2018; Kukutai & Taylor, 2016; Tarmiji et al., 2013). Addressing these difficulties requires not only policy reform and resource allocation, but also strategic and effective communication that are culturally appropriate to the Indigenous community (Servaes, 2018; Wilson, 2008).

Effective communication has emerged as a crucial tool for fostering understanding, collaboration, and advancement among diverse communities in an increasingly interconnected world. The dynamics of communication, however, go far beyond the simple exchange of data. According to David (1960), communication can be defined as the dynamic process through which two or more individuals exchange ideas, information, emotions, or perceptions in a manner that fosters a shared comprehension of the intended meaning, purpose, and significance of the conveyed messages. The term 'communication' derives from the Latin word 'communis,' signifying 'common'. Therefore, communication signifies a purposeful endeavour to disseminate knowledge, thoughts, attitudes, and similar elements among individuals. Strategic communication with indigenous people is a complex and sensitive endeavour that requires a deep understanding of cultural, historical, and social contexts (Hunt, 2013).

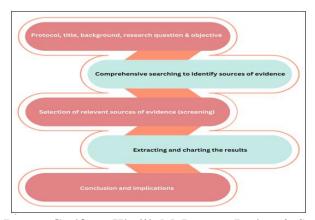
Effective communication with Indigenous communities remains a persistent challenge in multicultural societies due to distinct historical backgrounds, cultural values, linguistic diversity, and power asymmetries (Hunt, 2013; United Nations, 2022; World Bank, 2023). Indigenous rights and participatory frameworks are increasingly acknowledged; however, non-Indigenous institutions frequently implement generalised or top-down communication strategies that are incompatible with the local contexts and worldviews of Indigenous peoples (Mbakogu, 2004; Paulson et al., 2012). Ineffective engagement, mistrust, and misunderstanding have been exacerbated by the absence of culturally nuanced and community-specific strategic communication mechanisms, particularly in policy, education, health, and development programs (Petterson et al., 2008; Williams, 2003; Smykowsky & Williams, 2011; Don & Aini, 2021).

Although previous research has investigated the significance of interpersonal connection, community engagement, and cultural sensitivity (Yashadhana et al., 2020; Aini et al., 2019), there

is a dearth of systematic categorisation and evaluation of the strategic mechanisms that operationalise these principles across a variety of Indigenous groups. Additionally, the integration of traditional communication methods with contemporary digital platforms in a manner that is respectful of Indigenous epistemologies is limited (Hill & DeHass, 2018; Iglesias & De Castilla, 2015). While numerous studies have been conducted in Malaysia to investigate communication with the Orang Asli, they are fragmented and do not provide a comprehensive framework (Nordin et al., 2018; Aini et al., 2019). This lack of consolidated knowledge and applied mechanisms highlights the need for a comprehensive scoping review to map existing strategic communication practices, identify gaps, and propose adaptable frameworks for future engagement with Indigenous communities.

Methodology

A scoping review is a relatively new method of gathering evidence, and it varies from systematic reviews in both its intent and purpose. Grant and Booth (2009) defined scoping reviews as "an initial evaluation of potential scale and scope of available research literature". The purpose of this approach is to identify the nature and volume of research evidence. Four reasons make scoping reviews essential: (1) to ascertain the scope, range, and kind of current research on a specific subject or issue; (2) to assess the benefit of conducting a comprehensive examination; (3) to synthesize and disseminate research findings over a large body of evidence; and (4) to identify research gaps in the literature to facilitate future research planning and procurement (Munn et al., 2022). Scoping reviews are used to list and organise the literature that is currently accessible on a subject. An overview of these scoping review steps are simplified in Figure 1 below.



Source: Peters, Godfrey, Khalil, McInerney Parker & Soares, 2015

Figure 1. Overview of scoping review steps

A total of 29 journal articles were chosen to explore the strategic communication mechanisms with indigenous communities. These articles are from two databases that are Google Scholars and UKM Library that were published between 2003 to 2023. The search strings for each of the databases are displayed in Table 1.

Journal database	Search string	Frequency of hits
Google	Strategic communication AND (Indigenous people OR	
Scholars	Indigeneous communities OR Orang Asli) AND	120
	(Communication Mechanism OR Communication approach	
	OR Engagement strategy) AND Effective communication	
UKM	Strategic communication AND (Indigenous people OR	
Library	Indigeneous communities OR Orang Asli) AND	55
_	(Communication Mechanism OR Communication approach	
	OR Engagement strategy) AND Effective communication	

Table 1. The search string used in scoping review

The search strings were designed to capture a diverse but relevant corpus of literature on the intersection of communication and Indigenous cultures. The search approach combines basic phrases (e.g., strategic communication) with specific cultural and contextual terms (e.g., Orang Asli) to capture global and local viewpoints. The aims are to identify literature that focuses on practical procedures rather than theoretical ideas and studies that incorporate participatory and respectful communication practices.

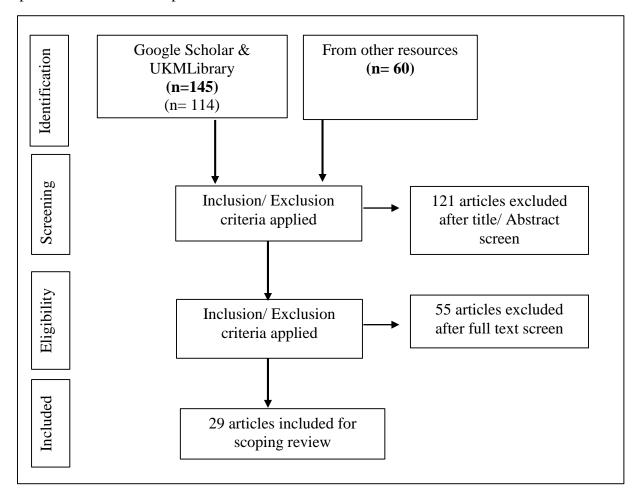


Figure 2. PRISMA flow diagram

Figure 2 shows the Prisma flow diagram. The database contained 205 manuscripts, including journal articles, research papers, reports, and duplicate citations. Relevant articles were systematically chosen to conduct this scoping review. Table 2 displays the inclusion and exclusion standards for the selected articles. In general, the articles were selected based on a few inclusion criteria. First, they had to be published between 2003 and 2023. Second, they had to focus on strategic communication and indigenous people. Lastly, the articles' findings had to explain the strategic communication mechanism with indigenous people.

Criteria	Inclusion criteria	Exclusion criteria
Publication years	2003-2023	2002 and below
Articles published	Journal articles, books and	Blog, unofficial websites
	report	and documents
Focus of study	Strategic communication	Non- indigenous people
	and indigenous people	
Types of outcomes	Strategic communication	No information on strategic
	mechanism	communication mechanism

Table 2. Inclusion and exclusion criteria

Excluded articles were mainly those that did not meet the timeframe. Articles that did not focus on strategic communication were excluded. The articles chosen had to be linked to indigenous people. Some of the articles found did not focus on communication mechanisms but the challenges in general. A number of the eliminated publications did not adhere to a well-designed study's framework, while others lacked necessary details. From the 205 manuscripts retrieved, 29 were chosen for the scoping review after full- text screening and data screening. Instead of being prompted by curiosity, queries should relate to what is currently known about the subject of interest (Lewis & Steinert, 2020). The guiding questions for this research were as follows:

- a. What are the effective communication strategies for engaging with indigenous communities?
- b. What communication mechanism is currently employed when engaging with indigenous communities?

Result and discussion

Research trends based on the articles collected were categorized according to their year. The highest number of articles focused on cultural sensitivity was collected from 2010 to 2021, which covered over 18 of the total articles analysed. The articles collected were divided into 17 countries. The dataset comprises 29 journal articles that collectively analyse the strategic communication mechanism with indigenous people. The publication timeline of articles concerning strategic communication mechanisms with Indigenous peoples spans from 2003 to 2023, revealing a transformative journey in recognizing and addressing Indigenous issues. Initially, a single article in 2003 marked the inception of this discourse.

Subsequent years saw sporadic contributions, indicating a gradual awareness of Indigenous concerns. However, a significant shift occurred in 2018 when five articles were published, reflecting a growing commitment to effective communication and collaboration with Indigenous communities. This momentum continued in 2019 with another five articles. In 2020 and 2021, two articles each reinforced the ongoing dedication. The year 2022 maintained this focus with two more articles, emphasizing the persistent relevance of Indigenous communication mechanisms. In 2023, three articles have already been published, signalling a dynamic landscape where the conversation evolves and deepens. Overall, this timeline underscores society's increasing recognition of the importance of Indigenous voices and perspectives, exemplifying a transformative journey toward improved understanding, respect, and collaboration with Indigenous communities.



Figure 3. Research trends

Figure 4 and Figure 5 shows papers have been published by various countries and locations, indicating a global interest in fostering effective communication and collaboration with Indigenous communities. Canada, with two papers, is committed to reconciliation and addressing Indigenous issues. Ghana, Durban (South Africa), Portugal, and Alaska each offer one paper, focusing on context-specific strategies for engaging with Indigenous groups. Indonesia, India, California, Spain, and Germany have delved into communication approaches with Indigenous populations within their regions, recognizing cultural sensitivity and inclusivity's importance. Malaysia leads with eight papers, emphasizing equitable representation and engagement with Indigenous communities. New Zealand have published one paper, reflecting dedication to the reconciliation with Indigenous peoples. Nigeria contributes two papers, addressing communication strategies with various Indigenous ethnic groups, while Australia offers four papers, covering a range of topics related to Aboriginal and Torres Strait Islander communities. These papers collectively highlight the global importance of effective communication with Indigenous populations, acknowledging their unique cultures and concerns.

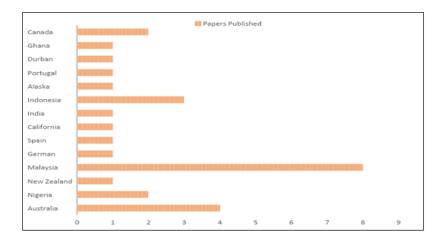


Figure 4. Papers published by countries

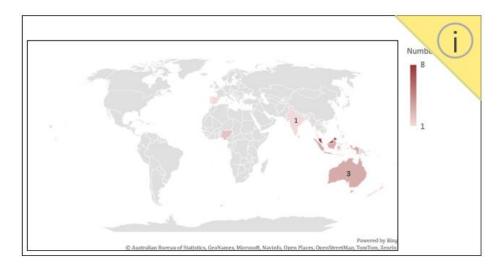


Figure 5. Papers mapping by countries

Table 3 serves as a comprehensive summary of the academic research landscape concerning the strategic communication mechanism with indigenous people within the timeframe spanning from 2003 to 2023. The limited corpus of 29 identified journals underscores this field's relative novelty and evolving nature, as reflected by the dearth of previous investigations into strategic communication and indigenous people. Consequently, these 29 journals bear considerable significance, acting as pivotal contributors to the discourse on strategic communication with indigenous people over the past decade. Notably, the focus of these journals is centred explicitly on the gap in communication between Indigenous people and non-indigenous, revealing a distinct niche within the broader realm of strategic communication mechanism research.

 Table 3. List of journal articles

No.	Author	Countries	Title	Research focus	Findings
1.	Williams (2003)	Australia	Cultural safety- Improving communication with Indigenous people	Gap communication between Indigenous patients and non-Indigenous health care staff	The models of cultural awareness and cultural safety is a valuable tool for improving communication between Indigenous people and non-Indigenous health workers
2.	Mbakogu (2004)	Nigeria	Forging a Link Between Indigenous Communication, Effective Community Social Work Practice and National Development	This paper emphasises the community social workers need to understand the rudiments of indigenous communication	Indigenous media's triumphs underscore community participation, cultural reverence, and mindful technology integration for sustainable development and communication
3.	McGrath et al. (2005)	Brisbane	The "right story" to the "right person": communication issues in end-of-life care for Indigenous people	To explore communication issues faced by healthcare workers and Indigenous patients and their families in a palliative care setting	This paper highlights the importance of communicating the right story (full and culturally appropriate information, appropriately translated and with opportunity for feedback to ensure comprehension) to the right person (recognising the importance of relationship, family and community)
4.	Petterson et al. (2008)	New Zealand	Communicating geoscience to indigenous people: examples from the Solomon Islands	This paper examines communicating geoscience to indigenous peoples using a communication model that closely follows geological models for pollution issues	Generic best practice includes the following: understanding of Indigenous culture, customs, values, taboos and political—governance structures; involvement of Indigenous people at every level of the communication process; identifying and including all stakeholders; a clear message, method and outcome focus; usage wherever possible of face-to-face communication and pictures as well as words; involvement of the community in practical exercises; a thorough follow-up and evaluation process; and sufficient time to allow the process to be effective
5.	Nambiar & Govindasamy (2010)	Malaysia	Documenting the languages of the Orang Asli of Malaysia: Some ethical concerns	Attempts to document the languages of indigenous communities which are facing the threat of extinction in linguistically diverse countries like Malaysia have given rise to	This paper highlights the experiences of researchers in documenting the languages of Orang Asli in Malaysia

				numerous ethical issues, partly due to the disadvantaged and illiterate statuses of these minority communities	
6.	Alias et al. (2011)	Malaysia	Development of ICTL Module-based on Suitable Teaching Methodology for Orang Asli (ICTL- TeMfOA)	This study aims to investigate suitable teaching strategies for Orang Asli	The researcher develops an ICTL module that suits the Orang Asli to improve their education in line with their ways of living (beliefs, culture and language)
7.	Harris & Harris (2011)	German	Information And Communication Technologies For Cultural Transmission Among Indigenous Peoples	This study focuses on the benefits of ICTs in recording and passing on their unique culture and traditions, something that is of considerable importance to the community	The research builds an understanding of the nature of cultural transmission within an Indigenous community in East Malaysia and demonstrates how ICTs can bridge the digital divide by accentuating the importance of family, friends and other social interactions within a community in strengthening the processes of cultural transmission
8.	Paulson et al. (2012)	Spain	Indigenous Peoples' Participation in Global Conservation: Looking beyond Headdresses and Face Paint	This study explores the inclusive participation of indigenous people in the decision-making process	Numerous global factors hinder democratic engagement. These include the imbalanced power dynamics between Indigenous communities and more affluent regions, which restrict opportunities for Indigenous involvement
9.	Iglesias & De Castilla (2015)	California	Communication for Social Change in Indigenous Communities; Limitations of Community Radios and Other Proposals	Radio as communication in indigenous communities	Radio is a great example of success for experts in communication for social change
10.	Meadows (2016)	Australia	Dangerous Dancing: A Commentary on Australian Indigenous Communication Futures	The lack of coherent Indigenous media policy limits the creative potential of indigenous media producers	Communication struggles with Indigenous people because innovations come too late in their area
11.	Malhotra et al. (2018)	India	Widening the arc of Indigenous	Inclusive social and behaviour change communication	A digital training and communication tools/materials pilot for frontline workers, to

			communication: Examining potential for the use of ICT in strengthening social and behaviour change communication efforts with marginalised communities in India	programs for marginalized communities	improve nutrition behaviors among marginalized communities
12.	Kadri (2018)	Indonesia	Komunikasi Sosial Komunitas Adat Bayan Lombok Utara: Studi Etnografi Model Komunikasi Tradisi Menyilaq	This paper analyses the social communication model of a menyilaq ritual within the Bayan indigenous people in North Lombok, West Nusa Tenggara (NTB)	This study found that the tradition of menyilaq carried out by Pebenkel to the Bayan indigenous people utilised the patterns of passive top-downand active top-down socialization. The Menyilaq ritual reflected effective communication as there were personal contact and immediate feedback within both top-down socialisation models. Additionally, it became a medium of communication of silaturahim which were considered as a form of respects to maintain family ties and able to build good relations among community members
13.	Hill & DeHass (2018)	Alaska	Digital Representation of Indigenous Peoples through Sharing, Collaboration, and Negotiation: An Introduction	This paper discussing potential benefits of digital media to working with Indigenous Communities	Digital media have the potential to become a valuable tool in the decolonization process, but only if Indigenous peoples have a voice in the creation and management of these digital representations
14.	Nordin et al. (2018)	Malaysia	Orang Asli Student Icons: An Innovative Teaching Method for Orang Asli Students	This study discusses challenges and barriers within Orang Asli education system	Indigeneous teacher should be involved in the learning process because the teachers speak the same language, and it helps the indigenous student to easily communicate
15.	Arumsari et al. (2019)	Indonesia	Communication Strategies in Managing Conflict in Rural Communities in Semarang Regency	This study focuses the interaction between leader (Lurah and village head in this case) and residents at the village and administrative village level	Community participation is needed for this policy, because without community participation and support, said policy will not run well and smoothly

16.	Adeniyi (2019)	Nigeria	Indigenous Communication Systems and Rural Development Projects' Variables in Selected Rural Communities in Ogun State, Nigeria	This study focused on indigenous communication systems and rural development projects'	Indigenous communications systems are important determinant of the project outcome in rural communities
17.	Aini et al. (2019)	Malaysia	Strategi Komunikasi Pemujukan Pendakwah Dalam Penyampaian Mesej Islam Kepada Masyarakat Orang Asli Di Selangor	This study discusses the communication process in delivering da'wah messages among the community of indigenous people	The study found that the preachers' persuasive strategies in communicating dakwah included the authority of preachers through the appointment and cooperation with Islamic institutions, the credibility of preachers encompassing knowledge, intentional preaching, spiritual practices, and noble character, and the application of changes covering cognitive, behavioural, and emotional aspects
18.	Aini et al. (2019)	Malaysia	The Practise of Da'wah Communication During Fardu Ain Guidance Class Among Muslim Orang Asli In Selangor	This study aimed to identify the communication approach used by the preachers when guiding the muslim Orang Asli in term of basic teachings of Islam namely fardu ain	This study finds that the approach of communication used most when guiding muslim Orang Asli are da'wah communication by alhikmah (wisdom). It covers the aspect of prioritizing the most important matters in the list of priorities, especially in the delivery of communication messages, communicating wisely in accordance with the level of thinking of target group, gradually giving an explanation on the message of communication and focusing on the elements of emotion, feeling as well as the common sense of the target group when communicating with them in classes
19.	Mamat et al.(2019)	Malaysia	Malay Language Teaching and Learning Strategies among Orang Asli Students in Terengganu	This paper analyses the issue of Orang Asli pupils dropping out education because of language barrier	The Findings of the study found that Malay Language teachers used teacher-centered teaching strategies and material-centered teaching as well as student-centered teaching.
20.	Tan et al. (2020)	Malaysia	Innovative use of TPOA Telecentres for Covid-19 Awareness Among	This paper presents the social innovation of using TPOA telecentres as a means to create	The new dissemination mechanism aimed to achieve faster delivery and a better understanding of messages among the community to gain quick awareness about COVID-19

			the Orang Asli	Covid-19 awareness among	
21.	Yashadhana et al. (2020)	Australia	Communities Trust, culture and communication: determinants of eye health and care among Indigenous people with diabetes in Australia	Orang Asli communities This study aimed to identify factors that influence access to eye care and eye health outcomes for remote Indigenous Australians living with diabetes	Address gaps in trust and communication, through increased access to and resourcing of Indigenous language interpreters and cultural brokers, understandable and culturally sensitive diabetic eye health information and cultural responsivity training for nonIndigenous clinicians
22.	Don et al. (2021)	Malaysia	Implementation of Non-Verbal Communication inDakwahbi al-Hal towards Orang Asli Community in Malaysia	This study focuses on implentation of non verbal communication as da'wah method	The study found that the da'wahbi al hal as a part of non-verbal communication can be implemented through several forms, namely leadership by example, welfare and social service, and economy and entrepreneurship
23.	Muller (2021)	Portugal	From grassroots movement to parliament: Strategic communication and the achievement of public legitimacy.	This paper present strategic communication has broader role in society	Findings indicate that a strategic approach to communication influenced the transition
24.	Akpan et al. (2022)	Durban	The Role of Indigenous Language and Appropriate Channel as Strategies for Effective Health Communication in Vrede	This paper explores the preferred communication medium among community members to meet their health information requirements, with the overarching goal of promoting health development and driving social change within the community	The research findings established that employing indigenous languages as a communication strategy for disseminating health information in Vrede proves to be effective, ultimately resulting in social transformation within the community and enhancing their overall well-being
25.	Hidayat et al. (2022)	Indonesia	Indigenous Village- Based Disaster Communication in COVID-19 Management	This study aimed to determine the indigenous village-based disaster communication strategy in Bali Province	The study's findings revealed that in managing COVID-19, Bali Province implemented a communication model that involved leveraging the participation of indigenous villages and service villages to engage with the community
26.	Abdulai et al. (2023)	Ghana	The Role of Indigenous Communication	This study delves into the significance of Indigenous Communication Systems (ICSs) within the Tolon District of	The study revealed that indigenous communities amalgamated or harmonized their traditional communication systems with modern media

			Systems for Rural Development In The Tolon District of Ghana	Ghana. It investigates how these systems serve as arenas for shaping cultural identities and act as channels for disseminating information aimed at fostering rural development	technologies to improve the spread of information within rural areas
27.	Samel & Sagura (2020)	Canada	Supporting Indigenization in Canadian higher education through strong international partnerships and strategic leadership: A case study of the university of Regina.	This study aims to develop ways of knowing to strengthening relationship with indigeneous people	Opportunities for engagement, including community involvement and individual interactions, remain actively promoted to ensure comprehensive and significant participation. Emphasizing an open-door approach as a best practice in engagement is the most effective way to cultivate and maintain respectful relationships, while also ensuring that participants perceive themselves as listened to and appreciated
28.	United Nations (2023)	-	Key principles for effective communications on ecosystem restoration	This study focuses on guiding principles can help deliver good communication	Communication strategy business, government, the public, and civil society
29.	Deer and Håkansson (2004)	Canada	An indigenous approach to bridging the digital divide	This project aims to contribute to this process by addressing four major aspects: identification and development of culturally appropriate ICT applications; elaboration of Indigenous approaches and strategies to bridge the digital divide; design of culturally appropriate capacity-building tools; elaboration of culturally appropriate development strategies for utilisation of ICTs for poverty reduction	This project aims to contribute to this process by addressing four major aspects: identification and development of culturally appropriate ICT applications; elaboration of Indigenous approaches and strategies to bridge the digital divide; design of culturally appropriate capacity-building tools; elaboration of culturally appropriate development strategies for utilisation of ICTs for poverty

Effective communication strategies for engaging with Indigenous Communities

Effective communication with indigenous communities is a multifaceted endeavour that requires cultural sensitivity, respect, and a deep understanding of the unique values and traditions that shape these communities (Williams, 2003). At the heart of successful communication with indigenous communities lies a profound respect for their cultural values and traditions. Cultivating cultural competence within communication teams is paramount. This entails recognising and appreciating the significance of indigenous customs, rituals, and protocols, often as the bedrock of their identity and collective memory (Mbakogu, 2004).

Cultural sensitivity

Cultural sensitivity in strategic communication is significant when engaging with indigenous communities. Indigenous peoples worldwide have distinct cultures, languages, traditions, and historical experiences that shape their worldviews and communication preferences. To effectively communicate with indigenous communities, it is crucial to understand and respect their cultural nuances. When communicating with Indigenous people, cultural sensitivity means recognising the deep-rooted connection they have to their land, history, and identity (Nambiar & Govindasamy, 2010). Indigenous cultures often prioritize oral traditions, storytelling, and communal decisionmaking processes. Therefore, strategic communication mechanisms should take into account these cultural aspects. Communicators should engage in thorough cultural research to learn about the specific indigenous group they are addressing. This includes understanding their languages, belief systems, and values (Adeniyi, 2019; Iglesias & De Castilla, 2015; Petterson et al., 2008). Without this foundational knowledge, it is challenging to convey messages that resonate with indigenous communities. The use of language is critical. Many indigenous communities have their own languages, and using these languages whenever possible demonstrates respect for their cultural heritage. If communication must occur in a dominant language, providing translations or interpretations is a sign of consideration (Arumsari et al., 2019).

Visuals and symbols are powerful tools in indigenous communication. Indigenous art, icons, and symbols hold deep cultural significance (Abdulai et al., 2023; Paulson et al., 2012). When using visuals, it is essential to do so in a manner that respects and accurately represents indigenous cultures, avoiding appropriation or misinterpretation. Moreover, indigenous communities often have unique decision-making processes and governance structures, such as tribal councils or elders (Nambiar & Govindasamy , 2010). Engaging with these community leaders and seeking their input and approval before initiating communication efforts demonstrates respect and inclusivity. Cultural sensitivity also extends to recognizing the historical trauma and injustices that many Indigenous communities have faced (Williams, 2003). Acknowledging this history and demonstrating a commitment to rectifying past wrongs can build trust and credibility in communication efforts. In summary, communicating with indigenous people requires a heightened level of cultural sensitivity. It involves deep cultural research, respect for indigenous languages and traditions, and an understanding of their historical experiences. By tailoring communication efforts to align with these cultural sensitivities, organizations and institutions can establish meaningful connections, foster trust, and work collaboratively with indigenous communities for mutual benefit and understanding.

Community engagement

Community engagement with indigenous people is a vital process that demands a culturally sensitive and strategic approach to communication. Indigenous communities possess unique histories, cultures, and worldviews that necessitate respect and consideration when initiating meaningful dialogues. Table 4 in the study presents a comprehensive summary of key principles essential for effective community engagement with indigenous populations. These principles form the bedrock for fostering productive and considerate interactions between communities and indigenous groups. The table identifies ten fundamental principles crucial for fostering effective interactions, promoting cooperation, mutual understanding, and ensuring reciprocal benefits between involved parties. These principles serve as a comprehensive framework for guiding engagements with indigenous communities, emphasizing the importance of respectful and collaborative approaches.



Figure 6. Community engagement key principles

Strategic communication in community engagement with indigenous people emphasises cultural sensitivity, respect, and empowerment. It involves understanding and embracing indigenous communities' cultural values and traditions while fostering trust and inclusivity. Organisations and institutions can build meaningful, mutually beneficial relationships with indigenous communities by adhering to these principles and strategies. Together, it can collaborate effectively to address shared challenges and opportunities while honouring the unique cultural heritage of indigenous peoples.

Table 4. Community engagement key principles and strategies

Key principles	Strategies
Cultural competence	Cultural competence forms the cornerstone of engagement. In-depth research and understanding of the specific indigenous group being engaged are paramount. This includes knowledge of their languages, traditions, values, and historical contexts, providing a respectful

	foundation for communication (Williams, 2003; Yashadhana et al., 2020)
Trust building	Establishing trust is central to successful engagement. Transparency and honesty are essential. Acknowledge historical injustices, demonstrating a sincere commitment to understanding and addressing indigenous concerns (Mbakogu, 2004)
Inclusivity	All members of the indigenous community should have the opportunity to participate. Recognize the diversity within indigenous communities, spanning differences in age, gender, and background (Aini et al., 2019; Mbakogu, 2004)
Participatory decision- making	Embrace participatory decision-making processes, allowing indigenous community members to actively contribute, share perspectives, and be part of decisions. This empowers them to take ownership of outcomes (Aini et al., 2019; Nambiar & Govindasamy , 2010)
Cultural protocols	Respect cultural protocols and traditional governance structures. Seek permission from community leaders or elders when necessary and adhere to any cultural norms related to communication (Aini et al., 2019; Mbakogu, 2004; Williams, 2003; Yashadhana et al., 2020)
Local partnerships	Collaborate with local indigenous organizations, leaders, and community members. They can serve as intermediaries and advocates, bridging cultural and communication gaps (Adeniyi, 2019; Nordin et al., 2018)
Language considerations	Communicate in the indigenous language whenever feasible. If not, provide translations or interpreters to ensure accurate message conveyance and comprehension (Don & Aini, 2021; Hidayat et al., 2022; Petterson et al., 2008)
Storytelling and oral traditions	Recognize the significance of storytelling and oral traditions within indigenous cultures. Incorporate these elements into communication to foster deeper connections with the community (Don & Aini, 2021)
Sustainability and capacity building	Prioritize building the capacity of indigenous community members to lead and sustain initiatives. Offer resources, training, and support that empower them to address their own needs (Mamat et al., 2019)
Feedback and evaluation	Routinely seek feedback from the indigenous community to assess the effectiveness of engagement efforts. Utilize this feedback to adjust strategies and enhance communication (Aini et al., 2019)

Interpersonal connection

Building meaningful interpersonal connections and engaging in strategic communication with Indigenous people is a delicate and respectful endeavour that necessitates cultural sensitivity, humility, and a deep understanding of Indigenous communities' unique histories and traditions. Table 5 summarises findings on establishing interpersonal connections with Indigenous people, presenting seven fundamental principles for building meaningful relationships. These principles offer valuable insights into creating genuine and respectful connections with Indigenous

communities, emphasising the importance of cultural sensitivity and effective communication to foster mutual understanding and cooperation.

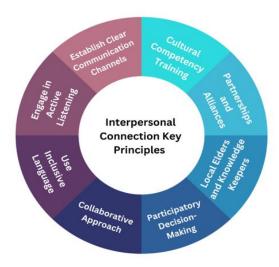


Figure 7. Interpersonal connection key principles

Interpersonal connections are paramount in strategic communication with indigenous people. These connections form the basis for trust and mutual respect, enabling more productive and culturally sensitive engagement. Recognising the distinct cultural perspectives of indigenous communities allows for tailored communication strategies that can better address their needs and aspirations, leading to more successful outcomes for all involved parties.

Table 5. Interpersonal connection key principles and strategies

Key principles	Strategies
Engage in active listening	Listen more than speak. Encourage Indigenous individuals to share their thoughts, concerns, and aspirations. Validate their experiences and feelings (Aini et al., 2019; Don & Aini, 2021; Nordin et al., 2018)
Use inclusive language	Be mindful of language used and avoid using terms or phrases that could be offensive or disrespectful. If unsure, ask for guidance or use neutral language (Mbakogu, 2004; Yashadhana et al., 2020)
Collaborative approach	Involve Indigenous people in decision-making processes that affect their communities. Seek their input and perspective, and respect their right to self-determination(Adeniyi, 2019; Meadows, 2016; Petterson et al., 2008; Tan et al., 2020)
Cultural competency training	Consider undergoing cultural competency training or workshops to understand better the cultural nuances and historical context of the Indigenous group you are working with (Abdulai et al., 2023; Williams, 2003)
Establish clear communication channels	Ensure that communication channels are clear and accessible. Understand that some Indigenous communities may have limited

	access to technology, so be flexible in approach (McGrath et al., 2005; Hidayat et al., 2022; Akpan et al., 2022)
Partnerships and alliances	Collaborate with Indigenous organizations and leaders who can act as intermediaries and help bridge the communication gap (Arumsari et al., 2019; Malhotra et al., 2018)
Local elders and knowledge keepers	Seek guidance and wisdom from local Elders and Knowledge Keepers who are often highly respected members of the community and can provide valuable insights (Arumsari et al., 2019; Petterson et al., 2008)

Communication engagement mechanism with Indigenous people

Table 5 presents a valuable resource for understanding communication engagement mechanisms with indigenous people. Figure 8 highlights the nine key communication strategies and their associated mechanisms, which play a pivotal role in facilitating effective engagement. These mechanisms are essential in ensuring that communication efforts are not only culturally sensitive but also actively help foster meaningful connections and relationships with indigenous communities.

Table 5. Communication engagement mechanism with Indigenous people

Key communications	Mechanism
Face-to-face interaction	Prioritize face-to-face communication to build trust and personal connections with community members (Aini et al., 2019; Mamat et al., 2019)
Storytelling and oral tradition	Leverage the power of storytelling and oral traditions to convey messages that resonate with the community's cultural heritage (Paulson et al., 2012)
Community radio and media	Utilize indigenous community radio stations and media outlets to share information and engage with the community effectively (Deer and Håkansson, 2014; Iglesias & De Castilla, 2015; Tan et al., 2020)
Printed materials	Develop culturally appropriate printed materials, such as brochures, pamphlets, and newsletters, often available in multiple languages
Digital media and websites	Create culturally sensitive websites and social media channels to share information and updates, considering language preferences (Hill & DeHass, 2018)
Cultural workshops and events	Organize workshops, cultural events, and gatherings that promote both learning and cultural preservation (Aini et al., 2019; Don & Aini, 2021)
Community outreach workers	Employ trusted community members as outreach workers to disseminate information and facilitate dialogue (Arumsari et al., 2019)

Telephone hotlines and text	Set up telephone hotlines and SMS services for community
messages	members to seek assistance and provide feedback (Iglesias & De
	Castilla, 2015; Petterson et al., 2008)
Art and visual	Use art and visual communication to convey messages
communication	effectively, respecting cultural aesthetics and norms (McGrath et
	al., 2005; Hidayat et al., 2022; Paulson et al., 2012)

Past studies have consistently demonstrated that employing the proper communication mechanisms is instrumental in successfully engaging with indigenous communities. These mechanisms, as highlighted in Table 5, are critical in ensuring that communication efforts are respectful, culturally sensitive, and ultimately contribute to building meaningful connections and relationships with indigenous people. By aligning strategies with these mechanisms, organisations and individuals can foster better understanding, trust, and cooperation when working with indigenous communities.



Figure 8. Communication engagement mechanism

Conclusion

This scoping review illustrates that strategic communication, rooted in cultural sensitivity, community engagement, and interpersonal connection, serves as an effective approach to confronting the systemic challenges encountered by Indigenous peoples as a marginalised group This study synthesises 29 peer-reviewed papers from the past two decades, highlighting that good communication is a fundamental mechanism for empowerment, inclusion, and the protection of rights.

Effective communication strategies for engaging with Indigenous communities are crucial for building trust, understanding, and meaningful relationships. By acknowledging history and context, building trust and relationships, listening actively, and using culturally appropriate

language, we can bridge the communication gap and work towards shared goals. Understanding cultural differences and engaging in meaningful consultations are also key to effective communication. Implementing these strategies can foster positive and productive relationships with Indigenous communities and contribute to their well-being and success. Indigenous Peoples are distinct social and cultural groups that share collective ancestral ties to the lands and natural resources where they live, occupy, or from which they have been displaced. They often lack formal recognition of their lands, territories, and natural resources and face multiple barriers to participating fully in the formal economy, enjoying access to justice, and participating in political processes and decision-making. It is clear from the research on communication strategies that cultural sensitivity is essential for productive interactions with indigenous populations. Building trust through customised ways is crucial, and it is emphasised that communication approaches must align with their traditions and values. Thus, including the community in decision-making, promoting openness, and building relationships among people are essential components of community engagement. These ties marked by sincere relationships emerge as a crucial element of effective engagement initiatives.

The study identifies nine key strategies to community engagement mechanisms. These strategies, which include clear communication channels, inclusive decision-making, and a collaborative approach, provide a framework for effective community engagement. Each strategy helps foster a feeling of community ownership, which guarantees the longevity and accomplishment of engagement programmes. When taken as a whole, the findings offer thorough insights into engaging and communicating with indigenous populations. To effectively communicate with Indigenous communities, it is important to use a level of language that is easy to understand, avoid using acronyms and technical terms, and translate relevant information into Indigenous languages where possible. Building trust and relationships can be achieved by showing respect, being honest, and following cultural protocols and etiquette. Active listening, meaningful consultations, and involving Indigenous communities in decision-making processes are also crucial for effective communication and relationship-building. Understanding the history and context of the community, as well as their traditions, beliefs, and values, can help establish a foundation of trust and respect. By implementing these strategies, non-indigenous organisations can foster positive and productive relationships with Indigenous communities, contribute to their well-being and success, and work towards a more inclusive and equitable society. Implementing these indicators can assist policymakers and practitioners to progress from symbolic engagement to authentic partnerships with Indigenous communities. Incorporating them into organisational culture can facilitate the dismantling of structural barriers, rectify past imbalances, and empower Indigenous peoples as active co-creators of their futures. Communication strategies is a sustainable approach to diminishing marginalisation, enhancing Indigenous agency, and fostering equitable, mutually advantageous relationships between Indigenous communities and broader society.

Limitation

Although this scoping review offers valuable insights into strategic communication mechanisms with Indigenous communities, it is important to recognise several limitations. Initially, the review is restricted by the scarcity of published studies that are specifically designed to address communication mechanisms that are specific to Indigenous contexts. Despite the fact that 29 articles were synthesised, this number is comparatively small in comparison to the broader field

of communication studies, suggesting that the subject matter is still underexplored. Comparative, cross-community analyses are particularly indicative of the scarcity of research, as they fail to adequately document variations in governance structures, communication preferences, and sociocultural contexts. The review predominantly accesses to English-language sources from databases. This method may have omitted pertinent literature that was published in Indigenous languages or in non-indexed regional journals, particularly from countries where Indigenous communities are concentrated, the majority of the studies included in the analysis rely on self-reported or observational data, which may be susceptible to researcher bias, selective reporting, or an emphasis on positive outcomes. There were very few studies that utilised longitudinal or experimental designs that could assess the long-term effects of communication strategies on Indigenous empowerment, participation, or well-being. As a result, the recommended mechanisms' scalability and durability are still uncertain. Finally, the review's emphasis on published academic and institutional sources resulted in the neglect of unpublished community knowledge, such as oral histories, grassroots evaluations, and Indigenous-led documentation. This omission poses a risk of under-representing Indigenous voices and perspectives that are not formally documented in academic literature, despite their importance in the comprehension of culturally grounded communication practices.

Acknowledgement

This research was supported and funded by a collaboration grant of Tenaga National Berhad Research (TNBR) and the National University of Malaysia (SK-2021-024).

References

- Abdulai, M., Ibrahim, H., & Anas, A. L. (2023). The role of Indigenous communication systems for rural development in the Tolon district of Ghana. *Research in Globalization*, 6, 100-128.
- Adeniyi, A. A. (2019). Indigenous communication systems and rural development projects' variables in selected rural communities in Ogun State, Nigeria. *KIU Journal of Humanities*, 4(2), 77–86.
- Aini, Z., Don, A. G., Mokhtar, A. I., & Fauzi, N. U. A. (2019). Strategi komunikasi pemujukan pendakwah dalam penyampaian mesej islam kepada masyarakat Orang Asli di Selangor. *al-Irsyad Journal of Islamic and Contemporary Issues*, 4(1), 12–26.
- Aini, Z., Don, A. G., Puteh, A., & Sad, N. D. H. N. (2019). The practise of da'wah communication during fardu ain guidance class among muslim Orang Asli in Selangor. *International Journal of Law Government and Communication*, 4(17), 34–47.
- Akpan, U. J., Mkhize, S. M., & Patrick, H. O. (2022). The role of Indigenous language and appropriate channel as strategies for effective health communication in Vrede. *Journal of African Languages and Literary Studies*, 4(1), 91–109.
- Alias, A., Hamid, J., Zin, H. M., Khan, S. B. O., & Ubaidullah, N. (2011). Development of ICTL module-based on suitable teaching methodology for Orang Asli (ICTL-TeMfOA): The preliminary study of suitable teaching strategy. In Proceedings of the 7th International

- Conference on Information Technology in Asia: Emerging Convergences and Singularity of Forms (CITA'11).
- Andaya, B. W. (2016). Malaysia's original people: P ast, present and future of the Orang Asli ed. by Kirk Endicott. *Journal of the Malaysian Branch of the Royal Asiatic Society*, 89(2), 152–155.
- Arumsari, N., Ngabiyanto, N., & Saputro, I. (2019). Communication Strategies in Managing Conflict in Rural Communities in Semarang Regency. Proceedings of the 1st International Symposium on Indonesian Politics, SIP 2019, 26-27 June 2019, Central Java, Indonesia: 8-14
- Australian Institute of Health and Welfare. (2007). Engaging with Indigenous Australia—exploring the conditions for effective relationships with Aboriginal and Torres Strait Islander communities. *Australian Institute of Health and Welfare*. https://www.aihw.gov.au/getmedia/7d54eac8-4c95-4de1-91bb-0d6b1cf348e2/ctgc-ip05.pdf.aspx?inline=true
- Berkes, F. (2018). Sacred Ecology (4th ed.). Routledge.
- Claudie, D. J., Semple, S. J., Smith, N. M., & Simpson, B. S. (2012). Ancient but New: Developing Locally Driven Enterprises Based on Traditional Medicines in Kuuku I'yu Northern Kaanju Homelands, Cape York, Queensland, Australia. *Indigenous People's Innovation:*Intellectual Property Pathways to Development, 29-55.
- Cleary, A. (2012). Suicidal action, emotional expression, and the performance of masculinities. *Social Science & Medicine*, 74(4), 498–505.
- Coluzzi, P., Riget, P. & Xiaomei, W. (2017). Language vitality among the Orang Asli of Malaysia: the case of the Mah Meri on Telo' Gunjeng (Carey Island, Selangor). *International Journal of the Sociology of Language*, 2017(244), 137-161.
- David, B. (1960). *The Process of Communication: An Introduction to Theory and Practice*. Holt, Rinehart & Winston.
- Deer, K., & Håkansson, A.-K. (2004). An indigenous approach to bridging the digital divide. In *Information Society Technologies and Indigenous Peoples* (pp. 239–256). Springer.
- Don, A. G., & Aini, Z. (2021). Implementation of non-verbal communication in *Dakwah bi al-Hal* towards Orang Asli community in Malaysia. *Innovations*, (64), 54–68.
- Grant, M. J., & Booth, A. (2009). A typology of reviews: An analysis of 14 review types and associated methodologies. Health Information & Libraries Journal, 26(2), 91–108.
- Hallahan, K., Holtzhausen, D., Van Ruler, B., Verčič, D., & Sriramesh, K. (2007). Defining strategic communication. *International Journal of Strategic Communication*, 1(1), 3–35.
- Harris, C. A., & Harris, R. W. (2011). Information and Communication Technologies for Cultural Transmission among Indigenous Peoples. *The Electronic Journal of Information Systems in Developing Countries*, 45(1), 1–19.
- Hidayat, M., Muljono, P., Maarif, S., & Saleh, A. (2022). Indigenous Village-Based Disaster communication in COVID-19 management. *Macedonian Journal of Medical Sciences*, 10(E), 1045–1049.
- Hill, C. G., & DeHass, M. C. (2018). Digital Representation of Indigenous Peoples through Sharing, Collaboration, and Negotiation: An Introduction. *Museum Anthropology Review*, 12(2), 40–54.
- Hunt, J. (2013). Engaging with Indigenous Australia—Exploring the Conditions for Effective Relationships with Aboriginal and Torres Strait Islander Communities. Closing the Gap Clearinghouse. Australian Institute of Health and Welfare (AIHW).

- Iglesias, B. R., & De Castilla, C. T. (2015). Communication for Social Change in Indigenous Communities; Limitations of Community Radios and other Proposals. In *Globalization and "Minority" Cultures* (Vol. 8, pp. 258–278).
- International Work Group for Indigenous Affairs (IWGIA). (2023). Indigenous World 2023: Malaysia. Copenhagen: IWGIA. https://www.iwgia.org/en/malaysia/5125-iw-2023-malaysia.html
- Kadri, K. (2018). Komunikasi sosial komunitas Adat Bayan Lombok Utara: Studi Etnografi model komunikasi tradisi Menyilaq. *Jurnal Komunikasi Islam*, 8(2), 275–294.
- Kalbfleisch, P. J. (2009). Effective health communication in native populations in North America. *Journal of Language and Social Psychology*, 28(2), 158–173.
- Kukutai, T., & Taylor, J. (2016). Data sovereignty for Indigenous peoples: Current practice and future needs. In T. Kukutai & J. Taylor (Eds.), *Indigenous data sovereignty: Toward an agenda* (Vol. 1, pp. 1–22).
- Lewis, L. D., & Steinert, Y. (2020). How culture is understood in faculty development in the health professions: A scoping review. *Academic Medicine*, *95*(2), 310-319.
- Malhotra, A., Sharma, R., Srinivasan, R., & Mathew, N. (2018). Widening the arc of indigenous communication: Examining potential for use of ICT in strengthening social and behavior change communication efforts with marginalized communities in India. *The Electronic Journal of Information Systems in Developing Countries*, 84(4), e12032.
- Mamat, N., Rami, A. M., Abdullah, R., Simin, M. H. A., & Hashim, S. S. (2019). Malay language teaching and learning strategies among Orang Asli students in Terengganu. *International Journal of Recent Technology and Engineering (IJRTE)* 8(1c2), 1158-1160.
- Mbakogu, I. A. (2004). Forging a link between Indigenous communication, effective community social work practice and national development. *Studies of Tribes and Tribals*, 2(2), 89–95.
- Meadows, M. H. (2016). Dangerous Dancing: A commentary on Australian Indigenous communication futures. *Media and Communication*, 4(2), 33–37.
- Muller, N. (2021). From grassroots movement to parliament: Strategic communication and the achievement of public legitimacy. Case Study: PAN (People–Animals–Nature). *Public Sciences & Policies*, 7(2), 201-221.
- Munn, Z., Pollock, D., Khalil, H., Alexander, L., McInerney, P., Godfrey, C. M., Peters, M. D. J., & Tricco, A. C. (2022). What are scoping reviews? Providing a formal definition of scoping reviews as a type of evidence synthesis. JBI Evidence Synthesis, 20(4), 950–952.
- Nambiar, M. K., & Govindasamy, S. (2010). Documenting the languages of the Orang Asli of Malaysia: Some ethical concerns. *Language & Communication*, 30(3), 171–178.
- Nordin, R., Yahya, M. S. B., & Danjuma, I. (2018). Orang Asli student icons: An innovative teaching method for Orang Asli students. *Pertanika Journal of Social Science and Humanities*, 26, 219–238.
- Paulson, N., Laudati, A., Doolittle, A., Welsh-Devine, M., & Pena, P. (2012). Indigenous peoples' participation in global conservation: Looking beyond Headdresses and Face Paint. *Environmental Values*, 21(3), 255–276.
- Peters, M. D. J., Godfrey, C. M., Khalil, H., McInerney, P., Parker, D., & Soares, C. B. (2015). Guidance for conducting systematic scoping reviews. *International Journal of Evidence-Based Healthcare*, *13*(3), 141–146.
- Petterson, M. G., Tolia, D., Cronin, S. J., & Addison, R. (2008). Communicating geoscience to indigenous people: Examples from the Solomon Islands. *Geological Society London Special Publications*, 305(1), 141–161.

- Sammel, A., & Segura, A. (2020). Supporting Indigenization in Canadian Higher Education Through Strong International Partnerships and Strategic Leadership: A Case Study of the University of Regina. In *Indigenizing Education: Discussions and Case Studies from Australia and Canada* (pp. 147-161). Springer Singapore.
- Servaes, J. (2018). *Handbook of Communication for Development and Social Change*. Springer. Smykowsky, A., & Williams, A. (2011). Improving communication with Indigenous people: ANJ. *Australian Nursing Journal*, 19(3), 28.
- Tan, C. E., Lau, S. P., Wong, S. M., & Bala, P. (2020, December 1-3). Innovative Use of TPOA Telecentres for Covid-19 Awareness among the Orang Asli Communities. Proceedings of the IEEE Region 10 Humanitarian Technology Conference, R10-HTC.
- The World Bank. (2015). *Indigenous Latin America in The Twenty-First Century: The First Decade*. World Bank.
- United Nations. (2022). Indigenous peoples at the United Nations.
- United Nations. (2023). *Key Principles for Effective Communications on Ecosystem Restoration*. UN Decade on Ecosystem Restoration.
- Uswah, N., Fauzi, N. A., Zulkefli, A., & Dakwah, J. F., & Pengajian, K. I. (2017). Strategi pemujukan dalam komunikasi dakwah masyarakat Orang Asli. *Jurnal Dakwah & Kepimpinan*, 5, 80-86.
- Williams, R. (2003). Cultural safety—What does it mean for our work practice? *Australian and New Zealand Journal of Public Health*, 23 (2), 213–214.
- Wilson, S. (2008). Research is Ceremony: Indigenous Research Methods. Fernwood Publishing. World Bank. (2023, April 6). Indigenous peoples. World Bank. https://www.worldbank.org/en/topic/indigenouspeoples
- Yashadhana, A., Fields, T., Blitner, G., Stanley, R., & Zwi, A. B. (2020). Trust, culture and communication: D eterminants of eye health and care among Indigenous people with diabetes in Australia. *BMJ Global Health*, *5*(1), e001999.
- Zakrzewski, V. (2022, November 23). Can the Indigenous worldview build a better future? Science based insight for a meaningful life. *Greater Good Science Center*. https://greatergood.berkeley.edu/article/item/can_the_indigenous_worldview_build_a_better_future